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The Physics of the Antichrist, a Theory of Everything, I of VI:

The Reality and Necessity of Soul

by Justin Katz

The Pattern Proposition

Suppose a scientist were to tell you that he'd invented a teleportation machine. What the machine does is to record every conceivable bit of data about the state of every molecule in your body, including in your brain. It sends this information at the speed of light to the destination machine, which rebuilds you with new matter using the recorded "pattern."

You may very well find that trepidation arises when he explains that you'll have to be knocked unconscious and that the machine records the necessary information by disassembling your current body molecule by molecule. Willing to believe that the procedure is painless, you ask, "But is it *me* who will wake up at the other end?"

"Of course it's you," he replies. "The rebuilt you will be so precise that no experiment could possibly find a difference. Indeed, when you wake up, all of your memories will be intact, right up to the moment that you went under. Therefore, even you will not be able to tell the difference."

It may be that all of his talk of a "rebuilt you" disconcerts the you with whom he's speaking. As it happens, he's got a packet summarizing philosophical arguments and scientific experiments,

from ancient theology to quantum physics, all of it showing beyond a shadow of a doubt that it makes no logical sense for you to see the rebuilt you as anything or anyone other than you. Indeed, it is little more than a nearly instantaneous execution of a process that is ongoing as you sit there and your body replaces "your" molecules with new ones derived from food and air.

Now, if you're sufficiently convinced that this new method of travel presents no threat to your identity, the scientist may offer you the deluxe package. Having purchased one ticket, you have the option of paying half price for another to simultaneously send the pattern and rebuild yourself somewhere else in the universe. Thus, there will be two of you — each of whom it makes no logical sense to define as someone other than you — out there accomplishing your work at twice the speed. Upon their return, the experience of the two yous will be synchronized into one person — you.

Turning Your Life Over to Yourself

This teleportation thought experiment merely applies, in a more immediate way, the principles that underlie the "resurrection" that Frank Tipler describes in his book, *The Physics of Immortality,* which explores the scientific possibility of the Omega Point, a God of physics manifested at the end of the universe. Discarding the possibility of soul and devaluing continuous experience, Tipler concludes that it is only logical to self-identify with the "pattern" of one's self and, therefore, to consider a far-future computer emulation (a perfect simulation) to constitute resurrection.

I'm confident that most people will emotionally reject this notion of self. In the teleportation example, there is *something* unique to the first you hopping into that machine. There is *something* that is discontinuous in the rebuilt you. And most importantly, there is a distinct you who ceases to play your role in the physical world at the moment of teleportation.

To clarify this point, remove the necessity of disassembly from the teleportation process. If there were a second you created, both copies might believe themselves to be the original you, and perhaps nobody could settle the dispute. However, there would be *two* people who would, from that moment on, experience life as different people.

This possibility becomes more visceral if we change the thought experiment so that the scientist's machine has a different purpose. Suppose you have some physical flaw that isn't fatal and that can't be fixed through medical technology. In this case, the machine could create an exact copy of you — a perfect clone — except without the flaw. If the machine doesn't destroy the old you in the process, perhaps you would be able to shake hands with the new you before sending him or her to sleep with your spouse and raise your children... leaving you to be euthanized.

The Most Observable Phenomenon

Without indulging in religious terminology, what scientists leave out — as an assumption — is first-person experience. Theoretically, a third-person experiment could not tell the difference between the two yous, so the conclusion drawn is that there must, therefore, be no difference.

On the contrary, I don't believe it an exaggeration to declare that the authenticity of continuous experience is the single most observable phenomenon. The difficulty arises because the procedures of science cannot detect what only the living individual can "prove" through observation of himself, so it is taken as an illusion. But this just indicates a limit of science. Why should the impossibility of measurement of something in others prevail over self-evident personal observation? It is nothing other than religious dogma to insist that anything that exists can be captured by science, experimentally or mathematically.

Tipler's theory requires that the computers of the future be considered "life," so he devotes quite a bit of space to proving them to be persons. To this end, he describes the Turing Test,

created by computer scientist Alan Turing, which suggests, in Tipler's words, that "if you can talk to the machine — *really* talk to it, carry on a conversation with it just as you would with another normal human being — then the machine *is* intelligent. If after interacting for years with the machine it acts as if it has a personality, has consciousness (and a conscience), then it really does." (20)

We must remember that the Turing Test is entirely hypothetical and assumes that such a machine could ever be created. It also tacitly assumes that we could not tell the difference between a human person and a machine person. When I refer to "impossibility of measurement," I do not mean it as equivalent to impossibility of observation. We can, in a sense, observe soul in others when they deliberately act or create in a way to which we respond at that emotional, experiential level.

Tipler suggests that a computer could be developed that replicates creativity if a portion were devoted to presenting random associations for analysis to discern significance or utility. Such a strategy might manage to simulate a sort of intellectual creativity, whereby random combinations of concepts are applied to a specific problem. But what about *emotional* creativity? Here, the issue of first-person versus third-person observation arises again, because the only way the "problem" of making an emotional connection can be solved in this mechanical manner is through observation of exactly that which is not measurable in a person other than one's self.

Not only does the emotional capacity of manmade machines have yet to be demonstrated, but the "blind" creativity that it requires relates to physicist Roger Penrose's similarly intended objection that "it is hard to see how actual *improvements* could ever arise in this random way" (29). Tipler responds that, if Penrose's suggestion were valid, it "would disprove the modern theory of biological evolution." Ultimately, these lines of argument wrestle down to the choice of faith in randomness or in purpose. Here again, but on a much grander scale, we run into science

overstepping its boundaries because its practitioners refuse to accept its limits: The sciences may discern the mechanisms and manifestations of divine will, but it would be false to assume that doing so disproves the will.

Indeed, by the end of his book, Tipler refutes himself on this count when he addresses miracles:

> The lesson of science is clear: leave out all miracles. On the other hand, if it could be shown that the resurrection of Jesus was in some way essential for the existence of the Omega Point, then Jesus' resurrection would no longer be a miracle; it would follow from the Omega Point Boundary Condition. (309)

I would have to get ahead of myself to explain the Omega Point Boundary Condition, but it is enough to note that, in formulating his theory, Tipler has worked purpose into reality, thus becoming willing to entertain the notion of the greatest miracle of human history if it were shown to have happened out of necessity. The difference between this and religious faith is merely one of direction. The believer begins with soul and God's will, understanding that human behavior and the physical world necessarily conform to them. The scientist begins with physical reality and will only accept those forces that can be shown to necessarily exist in order for it to function.

The Ethical Necessity of Soul

It follows that science must acknowledge the reality of soul if it can be shown to be a necessary component of physical reality, somehow affecting this world by way of an as yet undefined force, perhaps acting in another un-measurable realm. One way in which this requirement can be met is if two conditions can be shown to be true: that soul is a prerequisite for absolute ethics, and that absolute ethics are a necessity.

I define soul as precisely the irreducible quality that people mean when they say "me." The thing lost in the teleportation hypothetical and the thing forsaken in the "fixed" clone

hypothetical is soul. Furthermore, I assert that this can be the only basis for attributing non-relative, unconditional moral value to individual life. Tipler offers a test scenario for these assertions by presenting science as close to religion as it can get.

The Omega Point will "resurrect" us using our observable history, as recorded in light and other data from the universe, as well as knowledge of our DNA. In order for the Omega Point itself to come into existence, life will have to continue to progress in knowledge and technology at a sufficient rate to meet a universal deadline. Specifically, life will have to expand throughout the universe and take maximal control of it in time to influence its collapse. Both the objective and the requirement of expediency make it inevitable that the process will contradict certain religious/ethical beliefs, whether it involves the utilization of fetal technology or the dismantling of the planet Earth.

Tipler notes his disgust for Nazis several times, so I'll take his cue for my hypothetical. Suppose Jews stood in the way — or were thought to stand in the way — of the progress that would result in the Omega Point. It is logical that they must be converted, subdued, or, if their resistance is too problematic, killed. This is akin to the position of radical Muslims today: those of other faiths can "get along" while supporting the Islamic rule; they can convert; or they can die.

Without ethical absolutes, what could offer more moral validation than the creation of God and the facilitation of the universal resurrection? Tipler's Omega Point explicitly offers a form of moral absolution for sin done in its name. In one scenario, every possible person who ever *could have* existed based on the limited possibilities of DNA and environment will be "resurrected." Since one of them will obviously represent the exact same pattern as any given murdered infidel, if we accept the pattern definition of identity, we must conclude that the person has only been killed temporarily — and, indeed, with the intention of ensuring that the victim will live again for all eternity.

At conflict, here, is the Omega Point and the individual person, defined as a specific implementation of a person's pattern, as the basis for ethical absolutes. If the former is chosen, the way is open for genocide, whether the Omega Point's early proponents wish it to be so or not.

Lost Pages in the Book of Me

Of course, if we have free will, then rejecting the idea of absolute ethics is also an option. In some ways, this rejection can be seen as the definition of evil, and I will argue later that our having the option of evil is required by the laws of physics as Tipler explains them. For now, however, I will merely note that the necessity of soul for ethics is not restricted to the victims of "morally validated" crimes. It is also the source of individual incentive for good.

Tipler looks to the American Deists for philosophical sympathy, specifically addressing the work of Thomas Paine, Benjamin Franklin, Ethan Allen, Thomas Jefferson, and George Washington. However, Tipler glosses over the implication of the fact that they believe in judgment. Without ultimate judgment, there can be no ethical component to belief in God, and without continuity of experience — soul — one need not worry about experiencing the punishment for sinful actions.

Given that the Deists existed in a much more religious world, it isn't surprising that they retained a truth that eludes rationalists of our times. The limitation of the modern scientific point of view is most starkly revealed when Tipler singles out Franklin, "a fellow physicist," as his favorite, printing in full that Founding Father's self-authored epitaph:

> The body of B. Franklin, Printer, Like the Cover of an old Book, Its Contents torn out, And stript of its Lettering and Gilding, Lies here, Food for Worms. But the work shall not be lost; for it will, as he believ'd, appear once more in a new and more elegant Edition Corrected and improved By the Author. (324)

From this paragraph, Tipler interprets that Franklin did not consider his identity to be "a particular copy of a certain pattern — a certain computer program in twentieth-century language — which existed in the eighteenth century, but rather the pattern itself." The "elegant Edition," according to this reading, requires no personal continuity with Benjamin Franklin as the world knew him.

Tipler misreads. The body in Franklin's metaphor is the cover only; the pages have been removed. Thus, we have not just one pattern, but two components: the printed pages and the intangible story told thereon.

The soul is that story, and the pages will be corrected only to better tell it.

Tipler, Frank J. *The Physics of Immortality* (Anchor Books, 1994)