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Is God a Finite Being or a Simulation?

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"We (the undivided divinity that operates in us) have dreamed the world. We have dreamed it gnarly, mysterious, observable, continuous in space and reliable in time; but we have allowed into its architecture anomalous gaps of irrationality both indeterminate and timeless so we might know that it is a contrivance." (Jose Luis Borges)

Bostrom (2003; 2005) and others (e.g., Johnson, 2011; Lewis, 2013) have cogently argued that we might exist within a simulated universe and so ourselves be simulations. The possibility has also been explored in fictional works such as Stanislav Lem's 'Non Serviam' ('I Will Not Serve'; 1978, actually a fictional book review) and Greg Egan's novel 'Disapora' (1997). Bostrom points out that the probability of at least one of the following statements being true is exceedingly high:

1. No civilisation will reach a level of technological maturity capable of producing simulated realities
2. No civilisation reaching a level of technological maturity capable of creating simulated realities will actually do so. This may be for any number of reasons, e.g., computational processing power may be needed for other tasks, or people would balk at the moral consequences of holding conscious entities captive in simulated realities etc.
3. We are almost certainly living in a simulation.

As he puts it:

"In the dark forest of our current ignorance, it seems sensible to apportion one's credence roughly evenly between (1), (2), and (3)".

Teleological-style Arguments for God inadvertently support statement (3). For example:

P1: Artefacts (as in manufactured objects) are caused to exist by intelligent beings acting with purpose.

P2: The universe resembles an artefact.

C: Therefore it is probable that the universe was caused to exist by intelligent being(s) acting with purpose.

Thus we cannot escape the possibility that our universe may be manufactured rather than created *ex nihilo* and be a virtual reality running on a physical machine situated at an ontologically deeper level. The Big Bang may simply have been our universe booting up and the speed of light might represent the processing speed of the hardware or a built-in maximum value designed to limit the resources required by the program. The simulation hypothesis is not inherently atheistic, it just does not specifically address whether or not a first cause God exists. However it is a metaphysical hypothesis in several ways. For example, it suggests that

while a god-like being is sufficient to create a universe, such a being may not be necessary to create a universe containing complex and diverse sentient life-forms. Also, the simulation hypothesis throws a spanner into the works of theologians attempting inductive and probabilistic arguments for the existence of a creator God (such as Swinburne, 1991) as the prior probability that the universe physically exists must now be viewed as something less than 1.

Littleton (2005) whose new definition of a deity, proposed for the purposes of anthropological research, appears to describe the author of a simulation:

“[A] being with powers greater than those of ordinary humans, but who interacts with humans, positively or negatively, in ways that carry humans to new levels of consciousness beyond the grounded preoccupations of ordinary life.”

A common criticism to Littleton’s definition is that the essence of a deity is supernaturalism and infinite abilities and not just “powers greater than those of ordinary humans”, but this is a specific cultural conceptualisation, i.e., the classical monotheistic deity of the Abrahamic religions. Any civilisation or individual member of a civilisation designing and running a simulation could equally be argued to be a god even in the classical theological sense because they will, from our perspective at least, have created a universe and they would be both omniscient (in that they would either have or be able to eventually gain complete knowledge of all that occurs in their simulation) and omnipotent (in the sense that they would be able to suspend or alter any or all of the physical laws of the simulated universe at will). Many logical arguments for God are valid precisely because the particular kind of God proponents have in mind for the conclusion has been identified *a-priori* with requisite concepts such as ‘first cause’ ‘eternal’ and ‘omnipotent’. However, just as various geometrical shapes such as rectangles or spheres have been conceptualised *a-priori* as being different to triangles in order to fulfil different geometric requirements other kinds of gods have been conceptualised *a-priori* in different ways to fulfil different metaphysical requirements. Thus, historically and currently some theists do accept the notion that the universe may have been created by a very powerful, but not necessarily omnipotent being(s) and very knowledgeable, but not necessarily omniscient being(s). There is no viable reason for us not to accept the possibility that such a being (or group of beings) has created our universe, decided and fine tuned its physical parameters, and perhaps even instituted an apparently objective moral code (even allowing the occasional miracle and resurrection from the dead), yet be nowhere near the classical depiction of a monotheistic god. They may also have chosen their own divine-hiddenness.

There are similarly no certain discernible insurmountable, logical or computational barriers to humans achieving the same feat in the future (Greene, 2011). Indeed, if the speciation events that resulted in *Homo sapiens* had commenced as little as 5% earlier, relative to our current span on this planet, our species would now be living something like 10,000 years into our future. Assuming we survive and thrive that much longer, at our current rate of technological advancement we cannot rule out the ability to create simulations at the level of a universe. It may not even be as daunting a task as we might imagine. Spatially, for example, the vast bulk of the simulated universe would require relatively minimal processing power and the farthest regions of even our own solar system would only need to be implemented at high resolution on an as needed basis, such as the recently acquired New Horizons spacecraft images of Pluto.

At our current level of understanding the problem of there being no evidence that such a civilisation or being exists is no problem at all; believers in all of the current and classical monotheistic and polytheistic conceptualisations of God have no evidence that their deity exists and physics has yet to identify any viable first cause. Furthermore, while theistic arguments are heavily based on logical argumentation, with only the occasional foray into inductive arguments (e.g., Swinburne, 1991), Bostrom’s simulation hypothesis benefits from empirical premises to which are assigned concrete probabilities. Assigning equal probability to the three statements as Bostrom does is certainly open to debate but assigning zero probability to any of these statements is surely not credible. The simulation hypothesis is potentially falsifiable as it is conceivable that we can discover whether our underlying reality is computational or not and also whether it is computationally possible for simulations to be conscious.

Undoubtedly, then, there are profound theological implications if this scenario is real (though it is possible that by the time we do find out with any certainty, theism might well be of historical interest only). As Lem’s fictional piece cleverly demonstrates it is doubtful that the ‘personoids’ in a simulation would feel any affection or obligation toward their creator if the truth about their creation be known. And on what basis could we be confident that our creator would have any obligation toward us? For example, if such a simulation was created for the purposes of entertainment or aesthetics and our creator or audience tired of observing our existence what would stop them from pulling the plug? Likewise, if the simulation was created for scientific investigation the research program may incur budget cuts, been deemed to have run its course or the results obtained may be considered too morally controversial to be allowed to continue. Just as pertinent however is that Bostrom (2003) also notes that:

“Virtual machines can be stacked: it is possible to simulate one machine simulating another machine, and so on, in arbitrarily many steps of iteration.”

Steinhart (2010) recognises the import of this fact:

“...any reasoning that applies to our universe surely applies with equal force to any universe that is simulating our universe. So if there is any plausibility to the thesis that our universe is being simulated by some deeper universe, then there is equal plausibility to the thesis that every universe is being simulated by some deeper universe.”

The most obvious theological inference we can make of such nested universes is that it would be both premature and arbitrary (and even perhaps impossible) for the denizens of any one universe, including our own, to assign any ‘first cause’ to the whole of reality. Even if they became aware of their simulated state, they might be forever unable to rank-place their universe within a hierarchy of simulations. The discovery of any animate simulated universe would also question the claim that only a disembodied mind is capable of acting in a first causal relationship with physical objects and so the characterisation of a creator God as a disembodied mind would no longer hold the same power. Any sentient beings existing in a simulation would effectively be disembodied minds, yet everything that they create would also be a simulation with only an appearance of actual physicality. At first sight, however, the simulation hypothesis might be dismissed as a potential *reductio ad absurdum* and thus appear to lend support to the viability of the currently popular Kalām Cosmological Argument. The Kalām Argument (e.g., Craig, 1979; Craig & Sinclair, 2009) is:

P1: Everything that begins to exist has a cause

P2: The universe began to exist

C: Therefore: the universe has a cause

Kalam proponents argue as follows; if the universe has a cause, it follows that this cause must have a cause and so on. But a series of causes alone would entail an infinite temporal regression of causes, something which Kalam proponents claim is impossible. Indeed, many Kalam proponents deny the existence of any kind of infinity at all. Thus, an ultimate, uncaused first cause is considered necessary. Of course, they would consider their conclusion to obtain even if it included causes emanating from simulations, in which case an ultimate metaphysical first cause and a proxy first cause (i.e., the ultimate hardware running all the nested simulations) would co-exist. Nevertheless, putting aside the matter of whether actual infinities exist or not (I increasingly suspect that they do and the Kalām Argument is probably wrong, but that is a subject well beyond the scope of this essay) the possibility of nested simulations poses a number of very serious problems for the extended theological conclusions springing from the Kalām Argument, which have been influential in contemporary Christian apologetics. For example, those made by Craig and Sinclair (2009):

C2: Therefore: If the universe has a cause, then an uncaused personal creator of the universe must exist

C3: Therefore: An uncaused, personal Creator of the universe who is beginningless, changeless, immaterial, timeless, spaceless and enormously powerful and benevolent does exist.

An astute reader will notice the logical disconnect between ‘first cause’ and ‘personal cause’ and wonder as to how proponents of the Kalām Argument bypass a pantheistic or pantheistic explanation for the universe. Perhaps not unsurprisingly this is the least well developed argument in their arsenal. Craig and Sinclair’s (2009) paper, for example, devotes a mere three of its 100-pages to arguing for such a personal God. Again, a subject beyond the scope of this essay but suffice to say it appears to be an irredeemably weak link and, because it does not logically extend from the Kalām Argument itself, can justifiably be regarded as fallacious until better evidence is presented. For several reasons described below the simulation hypothesis only acts to compound this quandary.

First, as mentioned, there would be no guarantee that any currently identified first cause of our universe is actually a God in the classical monotheistic sense. Such a being need not be omnipotent, omnipresent, omniscient (or more importantly, even benevolent) in the way described by traditional theology. It would be another finite entity like us. There might be a hierarchy of similar ‘gods’ of differing abilities (and subject to permissions to act granted from the creators of the next deepest level), who are nevertheless able to be ranked according to the number of successive simulations that have resulted from their own simulation. In

other words, a form of theism might still hold but classical monotheism would need to be more realistically replaced by a form of ordinal polytheism (see Steinhart, 2012; 2013 for further explanation of this concept).

Second, ordinal polytheism circumvents the need for theologians to invent numerous theodicies because for all but one universe at the most there would be no perfectly moral monotheistic first cause God who has allowed suffering to exist and so no 'Problem of Evil' to counter. Being finite themselves, the creator of each universe could not be expected, either by moral inclination or by technological capacity, to create a perfect universe (Johnson, 2011; Steinhart, 2010 and according with the views of Smith, 1991).

Third, even if a metaphysical first cause God did exist at the deepest level of reality, it might be so far removed from our own universe that we would be meaningless and worthless to it in the scheme of things. Indeed, it's preferred (and only direct) creation might be the inhabitants of the universe that created the first of many nested simulations. It may not even consider itself to be morally responsible for our universe or even recognise us as fully-fledged sentient beings. Our universe may be of no importance whatsoever to the ultimate first cause, for after all, it would be merely a simulation, not an actual creation *ex nihilo* or otherwise.

Fourth, suppose the simulation was constructed in such a way that a god was completely absent or superfluous to the natural order but logic had been programmed into the simulation. What would stop the inhabitants of the simulation from constructing logical proofs for an imaginary omniscient and omnipotent God and concluding with certainty that such an entity existed and it was logically and metaphysically necessary that he exist? They would be wrong, but they would have no way of knowing that they were wrong.

Fifth, and potentially the most devastating scenario, the finite creators of a universe could incorporate a being within their simulation who they have given the illusion of being the omniscient, omnipotent creator god of a simulated universe. That being might then act as if it were in actual fact a maximally great being. It is not inconceivable that such a being would behave toward us in exactly the same manner as the Biblical or Qur'anic God is purported to have historically acted by scriptural literalists. It would have no way of knowing that it wasn't a god. And neither would the other inhabitants of the simulation who would proceed to justify its existence and its benevolence by devising logical proofs such as the Kalām Argument and engaging in apologetics.

Note: The author is agnostic as to whether we live in a simulation or not. For arguments that we do not live in a simulation, based on physical evidence rather than philosophical speculation, see e.g., Lloyd (2002) and Wharton (2015).

References

- Bostrom, N. (2003) Are You Living in a Computer Simulation? *Philosophical Quarterly* 53: 243-255
- Bostrom, N. (2005). Why Make a Matrix? And Why You Might Be Living in One. In W. Irwin (Ed.). *More Matrix and Philosophy: Revolutions and Reloaded Decoded*. Chicago: Open Court Publishing.
- Craig, W.L. (1979). *The Kalām Cosmological Argument*. NY: Harper & Rowe.
- Craig, W.L. & Sinclair, J. (2009). The Kalām Cosmological Argument. In W.L. Craig & J.P. Moreland (Eds.). *The Blackwell Companion to Natural Theology*. Chichester: Wiley-Blackwell.
- Egan, G. (1997). *Diaspora*. London: Orion Publishing.
- Greene, B. (2011). *The Hidden Reality: Parallel Universes and the Deep Laws of the Cosmos*. NY: Alfred A. Knopf.
- Johnson, D.K. (2011). Natural Evil and the Simulation Hypothesis. *Philo*, 14: 161-175.
- Lem, S. (1978). Non Serviam. In *A Perfect Vacuum: Perfect Reviews of Nonexistent Books*. San Diego, CA: Harcourt Brace Jovanovich, Inc.

Lewis, P.J. (2013). The Doomsday Argument and the Simulation Argument. *Synthese*, 190: 4009-4022.

Littleton, C.S. (2005). *Gods, Goddesses and Mythology, Volume 11*. NY: Cavendish Square Publishing.

Lloyd, S. (2002). Computational Capacity of the Universe. *Physics Review Letters*. 88:237901.

Smith, Q. (1991). Atheism, Theism and Big Bang Cosmology. *Australasian Journal of Philosophy*, 69: 48-66.

Steinhart, E. (2010). Theological Implications of the Simulation Argument. *Ars Disputandi: The Online Journal for Philosophy of Religion* 10: 23-37.

Steinhart, E. (2012). On the Number of Gods. *International Journal for the Philosophy of Religion*, 72: 75-83.

Steinhart, E. (2013). On the Plurality of Gods. *Religious Studies*, 49: 289-312.

Swinburne, R. (1991). *The Existence of God*. Oxford: Clarendon Press.

Wharton, K. (2015). The Universe is not a Computer. In A. Aguirre, B. Foster and Z. Merali (Eds.). *Questioning the Foundations of Physics*. London: Springer-Verlag.

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