‘The apparent reality of cosmic ‘fine-tuning’ furnishes one of the most powerful platforms for dialogue between theology and physical cosmology’ Discuss

The cosmic fine-tuning argument built upon by people such as Swinburne and Tennant has often been regarded as one of the most convincing arguments for a designer in the modern age by both believers and atheists alike. Even new atheists such as Christopher Hitchens have shown respect for the fine-tuning argument stating that ‘you have to spend time thinking about it, working on it. It’s not trivial.’[i] In a post-enlightenment world, a theological theory based on empirical and updated scientific evidence seems to be one of the greatest platforms of mutual respect on which to base a scientific and theological discussion.

The fine-tuning argument relies on all the data of modern physics that helps to point out the complex and seemingly impossible accuracy of the physical constants that govern the universe. For example, if the rate of the expansion of the universe was any faster or slower by an estimated factor of around 10^55, the universe would have flown apart too quickly for subatomic particles to be formed or would have collapsed in on itself respectively. The argument concludes that the universe was created this way due to one of three reasons: chance, physical necessity or an intelligent designer. The fine-tuning argument can be seen as a main platform for discussion between science and religion as it is one of the only theories that truly combines the two. Other arguments for God, such as Aquinas’ argument from governance, seem like speculation when placed against this argument and it’s a posteriori basis in modern science.

An important part of the basis in physical cosmology of the argument is the respect it gives to science. Often in discussions surrounding science and religion, we automatically assume them to be opposites, rather than allies in understanding the world. Whilst acknowledging the oppressive effect religion often had on earlier science, such as the condemnation of Galileo by the church, it is conversations with religion that began many early discoveries in science, specifically within Islam. For example, Qur’an verses such as 3:191 instruct Muslims to ‘give thought to the creation of the heavens and the earth’[ii], and so avoided, unlike later Christianity, a conflict between the two processes. This alliance caused Muslims to lead the scientific inquiry including the creation of the scientific method by Ibn al-Haytham. In this way, a theory that can incorporate both science and religion is bound to create a powerful conversation between the two, as the past had shown it helps promote the scientific understanding that makes the discovery of the science behind the fine-tuning argument possible.

However, there is disagreement that any discussion can be created by this argument. Gould proposed the concept of nonoverlapping magisteria (NOMA) stating that science and religion can only coexist as long as they explore completely different questions, ‘the lack of conflict between science and religion arises from a lack of overlap between their respective domains’[iii]. As long as science answers only the how questions, and religion only the why, there will be no conflict. By this model, the fine-tuning argument, an argument that not only seeks to answer the how questions of the universe but also often the why, as many, such as Tennant in his Anthropic version of the argument suggests the universe was created for the development of intelligent beings, will fail to create a discussion. However, it can also be

argued that the idea of NOMA itself fails to acknowledge important aspects of theistic religion. How can a religion be based around an omnipotent being that did not create the universe? How else could you describe ultimate power? In this way, the overlapping aspects of how and why in the fine-tuning argument are its strongest aspect, allowing space for a conversation in a world that is so typically black and white, strictly theological or strictly scientific.

Yet, throughout the existence of the fine-tuning argument, many modern scientists have shown a refusal to engage with it, with their creation of the multiverse theory as an attempt to solve the argument without the use of a divine creator. The theory states that a vast number of universes were created in the big bang, each with a different variation of the physical constants needed for life. As a great number of universes exist, the chances of a life-supporting universe to evolve is much greater than simply one universe that happens to be life-permitting. The multiverse theory is discouraging to a conversation between science and theology because it is overly speculative- there is no empirical evidence to suggest that such universes exist and usually 'sober scientists would not be flocking to adopt so speculative and extravagant a view as the many-worlds hypothesis'[iv] unless they felt they had too, compelled to reject the idea of a creator God by any means necessary. This great speculation shows a refusal to engage in any conversation that leads to the possibility of a divine creator, as scientists are going beyond the scientific method to create 'a trillion trillion other universes, rather than one God in order to explain the orderliness of our universe'[v].

Another problem the argument faces when creating a discussion is problems with the argument itself. If the fine-tuning argument fails as a scientific theory, it can be difficult to create a conversation between the two types of thinking. Firstly, the science behind the theory is again speculative. How can we as a species living in one type of universe, speculate how physical constants would affect life in different universes? Our evidence is biased towards universes that are exactly like ours, and for lifeforms that are exactly like ours. This is a problem for the argument because it gives us reason to believe that instead of the universe being finely tuned to bring life, life is finely tuned to exist in this universe. If the argument fails than no conversation can be made as it exists on false premises. Problems with the validity of the fine-tuning argument also extend to the falsification principle.

The falsification principle created by Karl Popper states that a theory is only valid if it is able to be disproved and that the more a 'theory forbids, the better it is' [vi]. The falsification principle can be applied to the fine-tuning argument as the argument for a designer can never be truly falsified. By centring an argument around the complexities of modern science, no scientific discoveries will ever be able to disprove it, no matter what 'first cause' science can discover, it will be still be possible to credit this to a creator. In an almost reverse "God of the Gaps" argument – the finetuning theory centres around a creator that only becomes more powerful and intelligent as physical cosmological discoveries are made. As the fine-tuning theory fails as a scientific theory, it can be said to destroy any chance as a platform between theology and physical cosmology as no real conversation can be created. Fine tuning seems to border on fence-sitting, a way of accepting scientific endeavours without actually recognising them, and whilst this creates an area of mutual respect it cannot be seen to be the basis of any meaningful discussion.

However, perhaps it is the failures of the science of the fine-tuning argument, the argument itself and the multiverse theory that is what really helps to create a platform for dialogue. After all it seems that it is in their mistakes, the lines between theology and physical cosmology seem the most blurred. For theologians, the fine-tuning argument is one of the only designer theories that works alongside modern science, allowing them to understand the scientific process and need for empirical evidence. For scientists, it allows them to explore a more philosophical side that is often repressed in those areas of study. After all, when looking for answers to the creation of the universe, one must encounter at least some philosophical questions, such as 'why are we here?', even accidentally. The failures of bias in the study of physical constants and the lack of empirical evidence in the multiverse theory also allow scientists to step into the mindset of a believer, as it takes on an almost religious approach of belief before evidence. After all, isn't the idea of an absolute truth, a whole and complete event responsible for everything, inherently theological? Can physical cosmology not be seen as just another form of belief? When so many arguments for a God rely on empirical evidence, it is not unreasonable to suggest that science is not any different, as it too is a worldview based around the evidence; and in the case of the multiverse, a worldview that is clung too as tightly as religious people are accused of clinging onto the existence of a creator.

There is no definite answer to whether the fine-tuning argument is the most powerful platform for dialogue between theology and physical cosmology as due to the failures of both science and religion, it can be seen to create no discussion at all. Yet the argument is not useless in the creation of dialogue as it is one of the first theories that allows both sides to step into the worldview of the other, an alliance that reflects the early relationship between science and theology, an alliance that allowed us to have many of the scientific discoveries of the modern day.

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[i] Christopher Hitchens on the fine-tuning argument.
[ii] Qur'an 3:191
[iii] Nonoverlapping Magisteria by Stephen Jay Gould
[iv] William Lane Craig, page 118 'On Guard'
[v] Richard Swinburne 1996
[vi] Karl Popper, Science as Falsification 1963.

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