

One of the earliest proponents of a ‘big bang’ theory of the origin of the universe was a Christian and Roman Catholic priest called Georges Lemaitre, who was also a theoretical physicist. Is this surprising, and to what extent is religious faith compatible with science?

I. Introduction.

There is a lingering assumption that since science is so successful, it is the only yardstick to measure truth. Many conclude with epistemic certainty that science implies atheism and therefore is incompatible with religious belief. However, this is not the opinion of many philosophers of science. Gauch states that, ‘to insist science supports atheism is to achieve high marks for enthusiasm but low marks for logic.’¹ This is a consequence of God being an unobservable phenomenon, and to use the scientific method of observation to conclude the negation of something unobservable is fallacious. In this sense, science is a neutral ground by which we can come to understand physical phenomena rather than posit assumptions in regards to negating the belief in God. Despite scientific implications and religious belief finding compatibility across some sectors, the amalgamation of the two is entirely unnecessary as they are fields which approach a distinct set of phenomena.

My entry will assume the definition of religion as, ‘the belief in God alongside a set of rules and beliefs,’ and will elucidate the definition of science as, ‘the attempt to discover, by means of observation and reasoning based upon it... particular facts of the world and the laws connecting facts with one another,’² as expounded upon by Russell.

II. ‘Faith in the unobservable.’

Undoubtedly, faith in the unknown is a fundamental principle for religious believers. Science focuses on what observations can deduce; however, God by definition is unobservable to the naked human eye, otherwise the fundamental attributes that constitute to God would be made redundant; he is external to the observable universe. As mentioned in my introduction, contemporary Philosopher Hamza Tzortzis exemplifies this, ‘any form of indirect observation could never negate God’s existence,’ since it is tantamount to saying, ‘an observed phenomenon can negate an unobserved phenomenon,’³ which is rationally illogical and untrue. The Islamic tradition defines him as someone who ‘No vision can encompass Him, but He encompasses all vision,’⁴ asserting that it is impossible to observe God as it is a fundamental component of his nature as far beyond human comprehension just as it is a fundamental component of his existence to be omnipotent. Therefore, if we were granted every possible scientific tool to grasp the intricacies of our universe, the observational and inductive nature of the scientific method would not allow us to empirically prove nor observe God since it is fallacious to prove his existence through observational methods.

Even if we were granted the capacity to empirically observe and ‘prove’ God a posteriori, we are still subjected to the limitations of our senses and the naked human eye. Russell asserts that, ‘the

confidence in our senses begin to desert us (...) in the observation of a table when we see through a microscope.' If we observe a table through the naked eye, it is oblong, brown, and smooth. Yet upon inspection of the table through a microscope, 'we see roughness and hills and valleys, (...) differences that are imperceptible to the naked human eye. If, we cannot trust what we see with the naked eye, why should we trust what we see through a microscope?'"⁵ Russell's observation can be applied if we were given the chance to observe God; we are still subject to the limitations of our bodily mechanisms and subject to doubt whether we have truly experienced the observation of God or not.

Hume's 'problem of induction' further postulates that no matter how much empirical evidence that we collect, the conclusion of an inductive argument is never guaranteed.⁶ Observation in this instance falls short as a limitation in its incapacity to truly provide us with a first-person objective experience. Concurrently, the utilisation of scientific observation in the assertion of proving God is incoherent just as it is incoherently placed as the primary methodology to know *everything* about us. The philosophy of science itself adheres to this very postulation as it is fundamentally uncertain that our present understanding will also be our future understanding. Subsequently, the prompt is mistaken in the assumption of the compatibility of the two fields since humans are physically incapable of the observing God as we observe natural phenomena.

III. *Epistemological approaches.*

Epistemologically, scientists and theologians apply similar methodology when approaching phenomena such as inductive reasoning. When most scientists read Lemaitre's paper in denoting the expansion of the universe, they had "accepted that the universe was expanding" but "resisted the implication that the universe had a beginning."⁷ Scientific discourse asserts the view that the universe came to be through the expansion of smaller states, yet it can still be assumed that God put the Big Bang into motion as Lemaitre assumes, 'Omnipresent divine activity is everywhere essentially hidden.'⁸ Adapting an Ockham Razor type approach, it is the simple most rational explanation for the universe. When exploring Christian theology, one can also assume divine intervention in the creation of the universe coinciding with the Big Bang theory; the scientific method itself is justified through amalgamating inductive evidence to deduce conclusive thesis' just as some justify religious belief in God rationally and through a priori reasoning to arrive at a deduced conclusion of an infinite creator. Aquinas' fifth way: '*from governance*' exemplifies this in stating that 'Now, whatever lacks knowledge cannot move towards an end, unless it be directed by some being endowed with knowledge and intelligence as the arrow is directed by the archer'⁹. Aquinas utilises the example of an archer shooting an arrow –which can be empirically observed- to rationally determine that things cannot move towards an end without being endowed with ability beforehand. In applying this to the Big Bang theory, the culmination of amalgamating belief in the expansion of the universe *and* a justification for religious belief is evidently possible.

Similarly, this can be applied to the Islamic discourse. Although the Quranic descriptions are independent of any scientific theory and the Quran should not be subject to ever-changing scientific theories, it does not conflate with the contemporary scientific understanding of the Universe, expounded in [21:30], ‘Do those who disbelieve not see that the heavens and the earth were once closed (in one piece)? We opened and parted them.’¹⁰ [Quran 21:30]. Concurrently, the discovery of such a profound scientific theory by a theist holds no significance and is not ‘surprising’ in nature as the prompt suggests. Even the adoption of a ‘Kraussian’ universe corresponds to the nature of the universe as ‘created’ through the assertion of Quantum explanations¹¹. Krauss contends that a ‘quantum haze’¹² existed prior to the universe's existence, in which random occurrences appeared consistently, creating the universe inhabited by humans today. Adopting this stance still leaves capacity for a theological approach in the assertion that God created this ‘quantum haze’ that Krauss contends.

The compatibility of science and religion epistemologically can also be further be expounded upon not just cosmologically, but also teleologically in the rationale many theologians utilise in the assertion of God’s existence such as Paley in his Watchmaker analysis. ‘Every manifestation of design which existed in the watch exists in the works of nature with the difference on the side of nature, of being greater or more, and thar in a degree which exceeds all competition.’¹³ Similar to Paley, F.R. Tennant’s teleological principles denote the impossibility of the creation of the universe as a consequence of chance with his assertion being summarised as, ‘there must be a creator because the universe perfectly adheres to the development of life.’¹⁴ Paley and Tennant’s marvelling at the perfectly conciliable universe with human life forms as ‘finely tuned’ to deduce the existence of God can be interpreted as an a posteriori observational deduction reflective of the scientific method; an explicit demonstration ‘to discover, by means of observation and reasoning based upon it... particular facts of the world and the laws connecting facts with one another,’ mirroring how Russell defines science. When addressing epistemological approaches, science and religion share compatibility, exacerbating the notion that it is not ‘surprising’ for theologians and scientists to arrive at the same conclusions.

IV. Free will and Determinism.

However, across different fields such as determinism and morality, science and religion are incompatible; not at the fault of religion, rather at the fault of scientific implications. Determinism is a rationally deduced concept that assumes the nature of the universe as having an infinite number of predetermined causes relating to the time of the conception of the universe¹⁵. This concept assumes that human existence is merely a consequence of laws dictating our *every* action. It entails the futility of the incessant human desire to propagate new discoveries and in the pioneering of them subjects, even in the scientific field itself. Determinism suggests that what you do are doing is always what you were *meant* to do, and what is to come is always what was *meant* to come. Through a deterministic lens, humans are merely by-products of cause and effect; powerless in our capability to alternate the

course of history and perpetually besieged by the shackles of predetermined laws. This further implies the speciality of humans to redundancy and futility, entailing that we cannot be judged for actions since they are predetermined. Thus, the deterministic notion places a profound inquiry into our understanding of free will and the implications it has for religion. The general religious understanding of humans is that we are endowed with the cognitive ability to rationalise our decisions (free will) and fulfil them in accordance with the will of God; if we adequately do so, then we are granted eternal bliss in heaven, if not, then we are subject to eternal torment in hell. Religious belief entails the importance of accountability for our actions whereas a scientifically deterministic approach does account for this. Subsequently, the scientific understanding of human nature as futile and redundant is irreconcilable with the notion that free will is of profound importance in relation to judgement for religious believers.

V. *Science as morally neutral.*

Science, as the description of natural and physical phenomena, cannot constitute to a substantiated moral framework. As explored above, the implications it has for human nature is that it is entirely predetermined. One can go as far as to interpret this as the futility of our morals since everything we participate in is already presupposed. As Tzortzis contends, ‘Science tells us what *is* and not what *ought* to be.’¹⁶ Consequently, we cannot simply ground morality upon a scientific understanding for our daily endeavours in legality and what is to be considered morally proper. Rather, religion acts as a prompt for outlining what is to be considered morally proper through religious texts and teachings in light of objective morality. Without God and religion providing objective moral anchorage, we cannot adequately define why it is wrong to murder an innocent person, engage in sexual misconduct or unjustified theft independent of opinionated principles whereas religion explains this. Concepts such as justice do not make sense on their own as they must be explained rationally, otherwise we cannot answer why they are objectively moral concepts. In this instance, religion places these concepts into context by asserting that these morals are objective, rationally explaining these concepts and establishing the duty we have as humans to obey them according to divine command juxtaposing science rendering futility for our actions.

VI. Conclusion.

To conclude, religion and science are two fundamentally different disciplines that aim to describe a separate set of phenomena; it is tantamount to the comparison of political sciences with mathematical discoveries, they aim to address different questions. Although in some circumstances - such as the description of the cosmos- it shares similar approaches in reasoning and demonstrate compatibility, the neutrality of science in its implications fails to adequately grasp and define the parameters of free will and morality – leaving space for religion to fill these gaps. Thus, I contend that due to some shared epistemological approaches, it is not ‘surprising’ for the discovery of the Big

Bang theory to be by a theist although the incompatibility of some scientific implications with a religious understanding is irreconcilable.

Bibliography:

- 1 Gauch, H.G, Jr (2012). *Scientific Method in Brief*. Cambridge: Cambridge University Press, p.98.
2. Russell,B. (1935). *Religion and Science*. Oxford: Oxford University Press, p.8.
3. Tzortzis, H.A. (2019). “Chapter 12, 'Has Science Disproved God',” in *The Divine Reality: God, Islam & The Mirage of Atheism*. (Revised Edition). S.I.: LION ROCK PUBLISHING, p. 193.
4. Quran 6:103.
5. Russell, B (1912). *The Problems of Philosophy*. The Project Gutenberg (published 2009).
6. Bain, Zara; Ferner, Adam; Mehdi, Nadia (2019) “Scientific Knowledge,” in *Philosophy: A crash course*. THE IVY Press.
7. Glorfeld, J. (2022) From the Vault: *Georges Lemaitre comes in with a Bang*, Cosmos. Available at: <https://cosmosmagazine.com/science/georges-lemaitre-comes-in-with-a-bang/> (Last Accessed: April 28, 2023).
8. Moritz, A.B.M., Moritz, B.M. and Harold (2018) *Georges Lemaitre – the big bang cosmology and its metaphysical implications (II), Science meets Faith*. Available at: [https://sciencemeetsfaith.wordpress.com/2018/07/05/georges-lemaitre-the-big-bang-cosmology-and-its-metaphysical-implications-ii/#:~:text=%E2%80%9EHe%20\(the%20Christian%20researcher\),activity%20is%20everywhere%20essentially%20hidden](https://sciencemeetsfaith.wordpress.com/2018/07/05/georges-lemaitre-the-big-bang-cosmology-and-its-metaphysical-implications-ii/#:~:text=%E2%80%9EHe%20(the%20Christian%20researcher),activity%20is%20everywhere%20essentially%20hidden.). (Last Accessed: April 28, 2023).
9. Aquinas, Thomas. (1265-1274) *Summa Theologica*.
10. Quran 21:30
11. The idea of random occurrences at a sub-atomic level.
12. Krauss, L. (2012) *A Universe From Nothing*. Simon & Schuster UK.
13. Paley, William (1802), *Natural Theology*.
14. Tenant, F.R (1930) *Philosophical Theology*.
15. Determinism - definition and examples Conceptually. Available at: <https://conceptually.org/concepts/determinism> (Last Accessed: April 28, 2023).
16. Tzortzis, H.A. (2019). “Chapter 12, 'Has Science Disproved God',” in *The Divine Reality: God, Islam & The Mirage of Atheism*. (Revised Edition). S.I.: LION ROCK PUBLISHING, p. 199.

Word count excluding bibliography: 2,000.