

THE FINE-TUNING ARGUMENT AND THE OBJECTION FROM ARTIFICIAL INTELLIGENCE

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ABSTRACT

I argue that the advent of artificial intelligence poses a new problem for the fine-tuning argument and design arguments for God in general, since an impersonal supreme designer, conceptually based on artificial intelligence, is a relevant alternative to God as the designer of the universe (or the designer of allegedly irreducibly complex biological structures, etc.) There are of course differences between a personal designer, like a human being, and an impersonal designer, like a narrow-AI system, but, as I argue, only if humans have souls would it be more reasonable to regard God as the supreme designer rather than an impersonal designer modeled on soulless artificial intelligence. In other words, the fine-tuning argument for God can only be successful if something like substance dualism is demonstrated to be true. Dialectically speaking, this makes the fine-tuning argument considerably less effective.

Keywords: Fine-Tuning Argument, Artificial Intelligence, Design Arguments, Consciousness

HASSAS AYAR ARGÜMANI VE YAPAY ZEKA İTİRAZI

ÖZ

Bu çalışmada, yapay zekanın ortaya çıkışının hassas ayar argümanı ve genel olarak Tanrı'nın varlığına dair tasarım argümanları için yeni bir sorun oluşturduğu görüşünü savunuyorum. Hassas ayar argümanına karşı yapay zeka itirazı olarak adlandırabileceğimiz bu itiraz, kısaca şu şekilde ifade edilebilir: Bilinçsiz yapay zeka sistemlerinden modellenerek kavramsallaştırılabilecek, şahıs olmayan mükemmel bir tasarımcı, evrenin tasarımcısı olarak mükemmel bir şahıs olan Tanrı'ya bir alternatif teşkil eder ve bu yüzden de evrenin bir tasarımcısı olduğu iddiasından Tanrı'nın varlığına dair geçerli bir çıkarım yapmamıza izin vermez. Bu itirazın bertaraf edilmesi ancak töz ikiciliği doğru ise, yani insanların ruhları var ise mümkündür, ve bu da hassas ayar argümanının sonucunu ruhun varlığına koşullu kılacağından argümanın etkisini önemli ölçüde zedeler.

Anahtar Sözcükler: Hasas Ayar Argümanı, Yapay Zeka, Tasarım Argümanları, Bilinç

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Introduction

I argue that the advent of artificial intelligence poses a new problem for the fine-tuning argument and design arguments for God in general, since an impersonal supreme designer, conceptually based on artificial intelligence, is a relevant alternative to God as the designer of the universe (or the designer of allegedly irreducibly complex biological structures, etc.). In what follows, I first present the fine-tuning argument and the objection from artificial intelligence against the fine-tuning argument (which is applicable to many other design arguments). Next, I present and evaluate some possible responses to the objection from artificial intelligence and I argue that a necessary condition for a successful response is the truth of the claim that humans have souls. Which means, the fine-tuning argument can only be successful if, something like substance dualism is demonstrated to be true. Dialectically speaking, this makes the fine-tuning argument considerably less effective.

The Design Argument Schema and the Fine-Tuning Argument

First, let us examine the general logical form of the design arguments for God. The most popular versions of design arguments today are probabilistic/evidential; however, I will characterize design arguments as deductive. This presentation of the basic form of the design arguments will not exclude the probabilistic/evidentialist varieties, since the contemporary standard defenses of the premises of the following deductive argument are generally inductive, utilizing probabilistic reasoning, Bayesian inference, etc. Especially the epistemic probability of the second premise below is what the contemporary debate mostly focuses on.

1. x is F .
2. If x is F , then x is designed.
3. If x is designed, then x is designed by God.
4. Therefore, God exists.

In the above schema, x can be things like (parts of) biological organisms, (a subset of) physical objects, the universe, etc. and F can be properties like “irreducibly complex,” “fine-tuned (for life)” etc. So, using this schema we can produce, for example, a design argument from the irreducible complexity of biological systems, which is known as the intelligent design argument, or a design argument from apparent fine-tuning of the physical constants and the initial conditions for life in our universe. In this paper, I will focus on the latter.

Lastly, by “God,” I mean the personal (hence the pronoun “He”) Creator depicted in classical theism who is omnipotent, omniscient and omnibenevolent; God is a maximally great person¹.

I use the fine-tuning argument (FTA) as an example of design arguments, since, as far as I can see in the literature, it is the most popular design argument, if not the most popular argument, for God in contemporary philosophy of religion. I’ll focus on FTA but my criticism will be applicable to other design arguments as well. Based on the above schema, we can formulate FTA as follows:

1. The universe is fine-tuned.
2. If the universe is fine-tuned, then the universe is designed.
3. If the universe is designed, then the universe is designed by God.
4. Therefore, God exists.

A universe U is fine-tuned if and only if U is life-permitting and the initial conditions, physical constants, or laws of nature in U were even slightly different, then U would not be life-permitting. By “life,” the proponents of FTA typically mean intelligent life.

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The alleged fine-tuning in our universe is incredibly precise. I’ll just give two examples proposed by two prominent atheist scientists:

1. If the rate of expansion one second after the Big Bang were 1 part in 10^{17} different than what it actually is, then our universe wouldn’t be life-permitting². If you started from zero and counted one integer per second without resting and doing anything else, reaching 10^{17} would take more than 3 billion years. Imagine that skipping one number in 3 billion years of counting would collapse everything; this would be the high sensitivity that Hawking tells us about.

2. If cancellation among different contributions to the vacuum energy were different 1 part in 10^{120} , then life would not be physically possible³.

Most of the contemporary debate is on the second premise of FTA. In the most popular versions of FTA, second premise is taken to be very likely to be true, since the existence of a fine-tuned universe is evidence for the existence of a designer or existence of a designer is the best explanation of the

¹ William Wainwright, “Concepts of God”, *The Stanford Encyclopedia of Philosophy* (Spring 2017 Edition), 2017

² Stephen Hawking, *The illustrated a brief history of time*, Random House, 1996, p. 156

³ Steven Weinberg, “Life in the Universe,” *Scientific American*, Oct., 1994, p. 49

existence of a fine-tuned universe, etc⁴. For the sake of the argument, I take the first and the second premises to be true. My objection to FTA will be to the third premise of the argument⁵.

From Humans to God, from Artificial Intelligence to Sid

In this paper, I argue against FTA in the context of the kind of theism that takes God to be a person, but, of course, not an ordinary person: He is perfect. But, what do we mean by “person?” What makes an entity a person?

There are suggestions in the literature for necessary and sufficient conditions for personhood, such as self-consciousness, rationality, having a self-concept, a sense of self-worth, moral agency, autonomy, etc. I am not endorsing any particular theory about personhood, but I do stipulate that consciousness is a necessary condition for personhood.

Even if we cannot agree on one answer to the question about what it takes to be a person, we seem to understand the question. We have a pretheoretical understanding of “person”, which is roughly “the kind of being that we fundamentally are.” This is why, I think, some people just equate being a person with being human. Our pretheoretical notion of personhood originates from the fact that we, as the ones who ask the question about personhood, are persons. So, the notion of God as a personal designer is at least partly modeled on us, since we have no understanding of personhood completely independent from the kind of being that we are. God is a perfect, immaterial, transcendent, omniscient, omnipotent, omnibenevolent and unique version of the kind of being that we are, rather than a version of an inanimate object like a chair or an impersonal animal like a goldfish. God may or may not have created us in his own image, but we do conceptualize him in our own image.

This point becomes more apparent once we consider consciousness as an essential attribute of persons. In order to understand personhood, we need to understand consciousness. There are many theories about the ontology of human consciousness, but when we ask the ontological question “what is consciousness?” we already know what we are talking about: we have a pretheoretical conception of consciousness, which is conceptually dependent on our subjective experience of our own conscious states. Our first personal

⁴ See, for example, Appendix B of Richard Swinburne, *The Existence of God*. Oxford: Clarendon Press, 1991; Robert Collins, “The teleological argument: an exploration of the fine-tuning of the cosmos.” *The Blackwell Companion to Natural Theology*. Oxford: Blackwell, 2009, pp. 202–281; Neil A. Manson, “The fine-tuning argument,” *Philosophy Compass* 4 (1), 2009, pp. 271-286.

⁵ For an objection to the first premise of the fine-tuning argument, see Kıymaz (2020b)

perspective is essential for us to conceptualize consciousness, which, in turn, we employ in our conceptualization of personhood. So, at least in this sense, our concept of a personal God has roots in our experience-based conceptualization of human consciousness⁶.

We can see this relation between humans and God in the context of design arguments. Paley, famously, draws an analogy between artifacts (like watches) and biological organisms. Like a watch, he argues, a biological organism, or an organ, is complex and apparently serves a function:

In crossing a heath, suppose I pitched my foot against a stone, and were asked how the stone came to be there; I might possibly answer, that, for anything I knew to the contrary, it had lain there forever: nor would it perhaps be very easy to show the absurdity of this answer. But suppose I had found a watch upon the ground, and it should be inquired how the watch happened to be in that place; I should hardly think of the answer I had before given, that for anything I knew, the watch might have always been there. ... There must have existed, at some time, and at some place or other, an artificer or artificers, who formed [the watch] for the purpose which we find it actually to answer; who comprehended its construction, and designed its use⁷.

To use Behe's⁸ terminology, the watch is irreducibly complex, that is, it cannot function if one of the pieces of its mechanism were missing, and this complexity is very unlikely to occur as a result of random natural events. This gives us good reason to think that the watch is designed. But, of course, we don't only assume that the watch is designed, but we also assume that it is designed by a human being. This is a natural inductive step, because, for all artifacts that we have encountered so far, as far as we know, humans are the designers. This point is very important. As Paley's analogy goes, since biological organisms resemble artifacts, then what created them must also resemble the creators of the artifacts, that is, humans. Humans are the producers of complex artifacts that we see around us and, also, humans are the only full-fledged persons that we have observed. Because of the fact that we are personal designers, we tend to infer that the alleged designer of the universe, or complex biological organisms, must also be a personal designer. This might have been a natural inference for

⁶ In Kıymaz (2019) and (2020a), I discuss the irreducibility (a posteriori and a priori, respectively) of the subjective first person perspective to the objective third person perspective.

⁷ William Paley, *Natural Theology: or, Evidences of the Existence and Attributes of the Deity*, J. Faulder by Wilks and Taylor, London, 1809, pp. 1-3

⁸ Michael J. Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution*, Free Press, New York, 1996.

Paley, since, in his time, the only designers around were personal designers, and it probably seemed obvious that being a person (which requires consciousness) is a necessary condition for being a designer.

But, today, this is not the case anymore. We have artificial intelligence systems that can design complex products. Today, artificial intelligence can design many things, even art⁹. Extant artificial intelligence is narrow AI as opposed to artificial general intelligence (AGI), that is, today an AI system can only design a narrow range of things in which it is specialized. Also, more importantly, extant AI is weak AI as opposed to Strong AI, that is, currently, artificial intelligence is not conscious, and therefore not personal.

We are persons and designers. In the context of design arguments, we conceptualize a perfect version of a personal designer, whom we call "God." Likewise, based on impersonal designer artificial intelligence systems, we can conceptualize a perfect version of an impersonal designer. Let's call this the "Supreme Impersonal Designer," or "Sid," for short. Sid is the perfect version of the kind of thing that artificial intelligent systems are. Sid is transcendent, omnipotent and unique like God, but, unlike God, Sid is not conscious and not a person.

Since Sid is the perfect impersonal designer, Sid is capable of designing the universe. This poses a problem for the fine-tuning argument, and all other design arguments for God. If the universe is designed, it might have been designed by Sid, rather than God. So, the third premise of the fine-tuning argument should be replaced by 3' below, which turns the fine-tuning argument for God into an argument for a supreme designer that can be personal or impersonal.

1. The universe is fine-tuned.
2. If the universe is fine-tuned, then the universe is designed.
- 3'. If the universe is designed, then the universe is designed either by God or by Sid.
- 4'. Therefore, either God or Sid exists.

4' is not a theistic conclusion, and this is what I call the objection from artificial intelligence.

⁹ See, for example, Ali Montag, "A portrait created by A.I. is being auctioned for the first time at Christie's - here's how much it's worth", 2018; and Donya Quick, "Kulitta", 2018.

Note that the objection from artificial intelligence is not just an application of Bostrom's simulation hypothesis¹⁰ to the design arguments for God. Existence of Sid does not imply that we are living in a simulation. My point is that, no matter what you take the ontology of the universe to be, if the existence of God is a good explanation of the apparent fine-tuning of the universe, then so is the existence of Sid.

But, of course, there seem to be many differences between God and Sid, which might make God a better candidate for the designer than Sid. In the next section, I will consider some possible responses from the adherents of the fine-tuning argument (or other design arguments) to the objection from artificial intelligence based on some alleged differences between God and Sid.

Possible Responses

a) The Incompetence Response

One might claim that even though human intelligence can serve as a model for a supreme designer, AI is not competent enough to be considered as a model for a supreme designer. I'll consider two defenses of the fine-tuning argument of this variety. First, I'll briefly address each response separately, then I'll give a reply that addresses all possible incompetence responses.

(i) First of all, today's AI systems are not capable of creating anything from scratch. The examples of AI design are through machine learning, and they consist in blending different things rather than creating something genuinely novel. AI design is too much dependent on existing examples and does not count as genuine design.

I don't think this response is plausible. If genuine design is supposed to be completely novel and independent of anything else, then human design also doesn't count as genuine design, since our designing process also inevitably utilize empirically acquired concepts. We cannot design things that are completely different from everything else. In fact, this would be an unrealistically high standard for genuine design. Human design and AI design are not significantly different from each other in this respect. So, if we can conceptualize a perfect personal designer based on limited human designers, we can also conceptualize a perfect impersonal designer based on limited artificial designers.

(ii) As a second response to my argument, one might claim that AI is not capable of the kind of design that a supreme designer is supposed to be capable

¹⁰ Nick Bostrom, "Are We Living in a Computer Simulation?" *Philosophical Quarterly*, 2003, pp. 243-255

of. We don't have artificial general intelligence, but just narrow artificial intelligence, that is, the artificial intelligence systems that we have today are specialized and can design only a specific kind of thing. For example, we have artificial intelligence that can design paintings, or music, or can play chess, or can simulate speaking, etc, but there is no artificial intelligence that can design different kinds of things like we do. Humans have general intelligence, but artificial intelligence is very narrow and specialized, therefore, a supreme designer modeled after AI would be inferior to God as the creator of the universe, which involves all sorts of things, everything that exists, in fact.

This response, however, doesn't work. Given that everything in the universe is physical, then the supreme designer is supposed to design only one kind of thing: physical. And, even if there is nonphysical phenomena in reality, the fine-tuning argument is only about the design of the physical universe. So, a supreme narrow designer, that is a designer that is only specialized in designing the physical, would be sufficient for a designer, in the context of the fine-tuning argument (and the intelligent design arguments about complex biological organisms and structures).

Furthermore, humans are not capable of the kind of design that God is supposed to be capable of either. As personal human intelligence serves as a model for a perfect personal designer of the universe, AI can serve as a model for a perfect impersonal designer of the universe. The distance between imperfect humans and perfect God is virtually infinite. Human persons are very limited and God is the unique perfect person, perfect in every way, including knowledge and power. The distance between today's AI and Sid is similarly infinite. Sid is the perfect impersonal designer. The imperfections and limitations of human persons do not preclude us from conceptualizing a perfect and all powerful person starting from our understanding of humans, and, similarly, the imperfections and limitations of today's AI doesn't preclude us from conceptualizing a perfect impersonal designer starting from our understanding of AI.

b) The Artifact Response

One might claim that AI cannot be a good model to conceptualize a supreme designer, because AI is programmed, designed by us. The supreme designer is supposed to be undesigned, since if it is designed, then it is not perfect because its existence is dependent on a designer (also, a designed designer would not be a very satisfying explanation since we can very reasonably ask who or what its designer is).

I don't think this is a plausible defense of the design arguments, since, if there is a God, AI is not that different from humans, since humans are also designed (by God) but we can still use humans as a starting point for conceptualizing an undesigned supreme personal designer.

To elaborate: humans are either designed or not designed. If humans are designed, then the artifact response doesn't work since being designed doesn't preclude being a model for an undesigned designer (we just abstract all imperfections away from humans, including being dependent on a designer). And, if humans are not designed, then the artifact response might work, but in that case, there is no God. So, the artifact response only works if there is no God, which makes this response dialectically useless to a theist.

c) The Free Will Response

One might recall Lady Lovelace's remarks about Babbage's Analytical Engine and use her basic idea to defend design arguments against the artificial intelligence objection. According to Lovelace¹¹ "the Analytical Engine has no pretensions to originate anything. It can do whatever we know how to order it to perform". According to Turing¹² Lovelace's objection amounts to the claim that a machine can "never do anything really new" or never "take us by surprise." I think it is best to interpret this claim as that the machines, unlike humans, lack genuine free will since they are programmed. So, as a response to my objection to the fine-tuning argument, one might claim that impersonal AI, and hence Sid, lacks free will; therefore, it wouldn't choose to create anything in the first place, which means, unlike the existence of God, the existence of Sid wouldn't explain the existence of a fine-tuned universe.

There are several problems with this response. First of all, one can easily deny that AI and human intelligence are significantly different from each other in this respect by endorsing hard determinism or a compatibilist account of free will and thereby denying that we have libertarian free will.

Furthermore, the free will response reduces the fine-tuning argument to the cosmological argument: Why (and how) would Sid decide to create a fine-tuned universe in the first place? The idea is that only the existence of God, who is free to create, can explain the existence of a fine-tuned universe. But, here the fact that the universe is fine-tuned is only secondary. Why (and how) would Sid decide to create anything? We can speculate and say that maybe Sid wanted (so to speak) to create impersonal intelligence, like itself, and to this

¹¹ Quoted in Douglas R. Hartree, *Calculating instruments and machines*, University of Illinois Press, Urbana, IL, 1949, p. 70

¹² Alan M. Turing, "Computing machinery and intelligence." *Mind*, 1950, pp. 433-460,

end it created a life-permitting universe so that natural designers can evolve and design artificial intelligence. If the question is “but why would Sid want that?” then I think we can just say that Sid works in mysterious ways. Sid is perfect impersonal intelligence, we can never hope to understand what is going on in its non-conscious mind. The important point is that Sid is not significantly more mysterious than God. Just like we cannot hope to understand why God does everything he does, we also cannot hope to understand why Sid does everything it does.

d) The Limited Knowledge Response

The main point of the fine tuning argument is that the universe seems to be designed to be habitable for living beings like us: biological organisms with consciousness. If this is true, then the God hypothesis can be preferable to Sid hypothesis since God would understand what consciousness is, given that God himself is a conscious being, but Sid would not, given that Sid is a non-conscious AI. So, only God can have the necessary knowledge to create a universe with consciousness, and, therefore, existence of God is a better explanation of the fine-tuned universe than existence of Sid¹³.

The background assumption of this response is that, since the universe seems to be designed to accommodate conscious biological organisms, the designer must know what consciousness is. However, I don't think this is true. First of all, the creation of conscious beings might not be the categorical purpose for the designer, and conscious beings like us might be regarded as instruments for the creation of AI (as I also mentioned in the last section). So, only a functional conception of consciousness would suffice for the supreme designer, since the phenomenal aspect of consciousness would not be essential for the instrumentality of humans in creation of AI systems. Furthermore, one can, admittedly controversially, postulate a special kind of objective knowledge of subjective experience that doesn't involve first person experience, as Nagel (1974) speculates at the end of his seminal paper.

The important point here is that, the first personal knowledge of conscious experiences is not necessary for the objective knowledge of how to design a universe in which conscious beings would evolve. We can, similarly, in principle, learn how to surgically alter one's eyes and brain in order to let that person see ultraviolet colors like bees do, even though we have no idea what an ultraviolet color would look like from that person's subjective perspective.

¹³ I'd like to thank an anonymous reviewer for proposing this objection.

e) The Physicality Response

AI cannot exist without a physical base. A program cannot run without a hardware. AI is essentially dependent on something physical. So, AI is not a good model for a perfect/transcendent designer which exists independently of anything physical. This I call the physicality response.

Now, one of the following is true:

- (1) Physicalism about human minds is true.
- (2) Physicalism about human minds is false.

If (1) is the case, then human minds are as dependent on the physical as the artificial intelligence is dependent on hardware. If this is the case, then the physicality response has no merit since we can conceptualize the immaterial Sid based on physical artificial intelligence in a similar way we conceptualize an immaterial God based on physical human personhood.

The physicality response can work only if (2) is the case. If human minds can exist without a physical base, which I take it to mean that we have souls, then it can be argued that human mind is a better model for an immaterial supreme designer than artificial intelligence (note that not every dualist view supports this response, but specifically substance dualism must be the case). The creator, then, is like a perfect version of a soul. But, given that only persons have souls, it is reasonable to regard the supreme designer as a supreme person.

At best, then, the conclusion of FTA should be stated as the conditional "Given that we have souls, God exists," which turns FTA into a different and a weaker argument, since, in order to conclude that God exists, the defender of the argument must first establish that substance dualism is true.

Even though belief in substance dualism and disbelief in God are compatible, as a matter of fact, many atheists and agnostics, especially the ones who subscribe to methodological naturalism, do not believe that we have souls. Looking at the history of philosophy, objectively proving the existence of souls seems to be as difficult as objectively proving the existence of God. So, the dependence of the physicality response to the existence of souls makes it dialectically very weak.

f) The Complexity Response

A similar response can be that AI is essentially complex, considering its hardware or the fact that it operates essentially by manipulation of symbols or 1's and 0's, so, Sid must also be complex, whereas God is ontologically simple,

and this makes God a much better explanation of the apparent design in nature, since a complex designer would both be imperfect (because it is dependent on its parts) and beg for further explanation.

First of all, divine simplicity, the claim that God is identical to his properties which was historically advocated by Augustine, Anselm and Aquinas, is a controversial claim among theists¹⁴. More importantly, this response has the exact same problem with the physicality response. If we are physical beings, then we are complex too, and if we can coherently abstract the idea of a perfect and simple person from our example, then we can make a similar conceptual jump from complex AI to simple Sid. Only if we have souls and our souls are simple (even though our minds are complex in terms of mental faculties and mental content), then this response might have some merit.

Unless one can show that physicalism is false and we have (simple) souls, the artificial intelligence objection undermines FTA and similar design arguments for God.

Conclusion

According to the fine-tuning argument, our universe must be designed. I have argued that even if our universe is designed, it might have been designed by an impersonal designer. For a very long time in human history, the only designers around were human persons. But, now, we have impersonal artificial intelligence systems that can also design. As the concept of a personal God is based on the concept of human persons, we can conceptualize a supreme impersonal designer based on the concept of artificial intelligence. This supreme impersonal designer is a relevant alternative to God as the designer of the universe, which blocks the fine-tuning argument (and other design arguments for God *mutatis mutandis*.) I have considered some possible responses from the adherents of the fine-tuning argument to the objection from artificial intelligence. I argued that some of these responses are categorically unsuccessful, but some of them are conditionally successful. The success of the latter depends on the truth of substance dualism, and in particular, the truth of the even more controversial claim that we have ontologically simple souls. So, given the objection from artificial intelligence, the only plausible versions of the fine-tuning argument would have a conditional conclusion, such as “if we have (simple) souls, then God exists” or “if we have (simple) souls, then the fine-tuned universe is evidence for God.”

¹⁴ See, for example, Alvin Plantinga, *Does God Have a Nature?* Marquette University Press, Milwaukee, 1980

REFERENCES

- Behe, Michael J. *Darwin's Black Box: The Biochemical Challenge to Evolution*. New York: Free Press, 1996.
- Bostrom, Nick. "Are We Living in a Computer Simulation?" *Philosophical Quarterly*. Vol. 53, No. 211, pp. 243-255, 2003
- Bourget, David & Chalmers, David J. "What do philosophers Believe?" *Philosophical Studies*, 170 (3), 465-500, 2014
- Collins, R. "The teleological argument: an exploration of the fine-tuning of the cosmos." In W. L. Craig and J.P. Moreland (eds.) *The Blackwell Companion to Natural Theology*. Oxford: Blackwell, pp. 202-281, 2009
- Hartree, Douglas R. *Calculating instruments and machines*. Urbana, IL: University of Illinois Press, 1949
- Hawking, S. W. *The illustrated a brief history of time*. Random House, 1996
- Kıymaz, Tufan. "Phenomenal Concepts and Physical Facts: A Dialogue with Mary". *Filozofia: Journal for Philosophy*, 74 (10): 797-807, 2019
- Kıymaz, Tufan. "A Priori Physicalism and the Knowledge Argument." *Teorema*, 39 (2): 87-103, 2020a
- 13 Kıymaz, Tufan. "Hassas Ayar Argümanı: Bilim Tanrı'yı Mı İşaret Ediyor?" *Beytülhikme*, 10/4: 1367-1381, 2020b
- Manson, Neil A. "The fine-tuning argument." *Philosophy Compass* 4 (1), 271-286, 2009
- Paley, W. *Natural Theology: or, Evidences of the Existence and Attributes of the Deity*. 12th edition, London: Printed for J. Faulder by Wilks and Taylor, 1809
- Plantinga, A. *Does God Have a Nature?* Milwaukee: Marquette University Press, 1980
- Quick, Donya. "Kulitta." <<http://www.donyaquick.com/kulitta>>, 2018
- Swinburne, Richard. *The Existence of God*. Oxford: Clarendon Press, 1991
- Turing, Alan M. "Computing machinery and intelligence." *Mind*, 59, 433-460, 1950
- Weinberg, S. "Life in the Universe." *Scientific American*, Oct., 1994

Internet References

- Montag, Ali. "A portrait created by A.I. is being auctioned for the first time at Christie's — here's how much it's worth", 2018 <<https://www.cnn.com/2018/08/24/obvious-ai-created-portrait-being-auctioned-at-christies.html>>

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Wainwright, William. "Concepts of God", *The Stanford Encyclopedia of Philosophy* (Spring 2017 Edition), Edward N. Zalta (ed.), 2017
<https://plato.stanford.edu/archives/spr2017/entries/concepts-god/>