

Aliens of the Gaps?

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The ubiquity of science fiction has kindled an unparalleled enthusiasm in the general public with regards to the topic of aliens. Add to that various UFO sightings, mysterious abduction testimonies or strange occurrences in general and we find ourselves with some interesting philosophical questions that need answering. In this paper, I test the alien hypothesis for theoretical virtues. Simply put, I highlight the merits and demerits of appealing to aliens, i.e. technologically advanced intelligent extraterrestrials, to explain certain phenomena or observations. I shall compare the alien hypothesis to rival hypotheses and also argue that the jinn hypothesis is more preferable.

Keywords: Aliens; Extraterrestrial; Paranormal; Miracles; Jinn

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*“Two possibilities exist: either we are alone in the universe, or we are not.
Both are equally terrifying.”
attributed to Arthur C. Clarke*

1. Introduction

Is our civilization the only civilization in the universe that is capable of scientific inquiry? If not, then what would another scientifically informed civilization other than ours be like? Would they be interested in interacting with us? Have they already interacted with us? To me, however, a more interesting question is the following; how could we possibly identify *extraterrestrial intelligence* as the efficient cause of any given observation? It seems rather clear that the way we engage in demonstrative metaphysics, i.e., by deductive reasoning, would not be the best way to try to demonstrate the existence of aliens, irrespective of how potent one thinks said method to be. While it is possible to conjure up a deductively valid syllogism with the conclusion “therefore aliens exist”, the probabilistic reasoning would (inescapably) be hidden amongst the premises, or in the justification offered for at least one of them. Thus, the way forward for the genuine researcher, a random inquisitive pedestrian, or even (dare I say) conspiracy theorists, would have to be to appeal to an ampliative argument. In this paper, I shall be relying

on *abductive reasoning*. Needless to say, abductive reasoning is not as straightforward as we would like it to be; rather, it can be quite tricky, and this fact shall become apparent as the paper progresses.

1.1 Abductive Reasoning

I recognize the fact that this paper may have a relatively broad and diverse readership. In light of this fact, an important preliminary is as follows; abductive reasoning is not to be confused with *inductive* reasoning. Inductive reasoning, as I understand it, is to infer from observable members of a set to a conclusion about all the members of the set (Douven, 2021). Abduction, on the other hand, is different. Based on what I encounter within my field, there are at least three kinds of abductive arguments; Bayesian reasoning, inference to the best explanation (IBE), and mere theory comparison. Bayesian reasoning involves attempting to calculate the conditional probability of a hypothesis given a certain observation/s, I shall not be adopting Bayesian reasoning in this paper. IBE involves attempting to argue that a hypothesis is the best explanation of certain observation/s. As for theory comparison, it is similar to IBE; however, it only compares theories (head-to-head), while sidelining other potential explanations for the time being. It is these two later types that concern us. What is common among all three types of abductive arguments is the fact that they rely on observations. Those who believe in the existence of aliens often cite a number of observations that they believe are best explained by alien intervention. These may include (but are not limited to) UFO sightings (Eghigian, 2024), testimonies of people supposedly being abducted by aliens (Mack, 1994), miracle reports found within the pages of history, or some other paranormal occurrence. Such phenomena seem to have a profound impact on those that experience them, to a point where their belief in the extraterrestrial has been likened to belief in a religion (Pasulka, 2019). For the philosophically untrained, a flying saucer might be enough to justify such a belief, but is it really right to assert ‘saucers therefore aliens’? In this paper, I shall highlight the merits and demerits of the alien hypothesis as an explanation of certain phenomena or observations.

1.2 Explanations

It would not be controversial to assert that *abstract explanations*, such as the ones found within Mathematics, are not the kind of explanations we are looking for in this context. Therefore, we are left with two remaining candidates; *scientific explanations* and *agential (or personal) explanations*. For the purposes of this paper, when an event is explained by a combination of certain initial conditions coupled with a set of natural laws, we shall understand this to be a scientific explanation (Swinburne, 2004). Whereas personal explanations may be understood as explanations that involve the action of a free rational agent or person (Swinburne, 2004). I will be assuming that we do not have good scientific explanations of such phenomena. Part of the motivation behind this assumption is brevity, for otherwise I would have to discuss the question of whether or not we should appeal to agential explanations when doing science. That question deserves its own separate philosophical treatment. However, more importantly, people who do side with the alien hypothesis or might be considering it (i.e., people most likely to be reading this) would normally grant this assumption. Additionally, it is fair to say that if there were a viable scientific explanation of the phenomena relevant to us, then the issue is pretty much resorted, for there would not be any need to appeal to an agential explanation. Suppose one is overly skeptical of this assumption. To them, I suggest looking at this paper from a different perspective: Uncontroversially, when it comes to our search for aliens, we are looking for precisely those phenomena that require agential explanations. Thus, one may look

at this paper from the perspective of our potential future selves. Having encountered an event that seems to require an agential explanation, the question remains: where do we go from there? I shall attempt to shed some light on this question.

Recall once again that I shall be adopting abductive rather than inductive reasoning; that is, not to say that an inductive argument in favor of the conclusion that aliens exist is not possible. On the contrary, there are arguments that may be interpreted as such (like *intelligent design* arguments). I choose to omit discussing them due to various reasons, but mainly because I am interested in providing solely an abductive assessment in this paper.

1.3 Definitions

For the purposes of this paper, I shall use the term *Alien* to refer to a member of an intelligent species that did not evolve (or originate) on the planet Earth and is much more technologically advanced than humans. Note, this definition precludes a human born on another planet from being considered an alien; however, it does include a non-human born on our planet so long as the species evolved (or originated) on some other planet. It is also important to note that I am specifically referring to a bio-chemical living organism. Since the word ‘life’ is notoriously hard to define (Mariscal, 2021), I shall simply be assuming the concept of a bio-chemical living organism to be a primitive notion. Also note that the simulation hypothesis could potentially be considered a variant of the alien hypothesis as long as the simulation has been created by an alien civilization (and if we could have a more inclusive definition of ‘life’). Later in this paper, to illustrate some of the demerits, I shall compare the alien hypothesis to the *Jinn* Hypothesis. The *Jinn* are non-human, free, supernatural entities. Their existence is postulated by Islamic theology (Playford, 2024; Hussein, 2024). Moreover, I also compare the hypothesis to God as an explanation of certain phenomena. I use the term God to refer to the omni-God postulated by perfect being monotheism or Abrahamic Theism.

I would also like to mention that by no means do I wish to belittle any emotionally significant experience someone might have had. This paper is not a paper trying to falsify such testimonies. It is meant purely as a philosophical analysis of the alien hypothesis as an explanation.

2. Testing the Alien Hypothesis

In this section, I shall highlight the merits and demerits of appealing to the alien hypothesis to explain certain phenomena.

2.1 Merits

2.1.1 Explanatory Power

While a theory’s ability to make verifiable predictions is often regarded as one of the key components of an explanation with high explanatory power, the lack thereof should not be problematic when discussing an agential or personal explanation. The alien hypothesis as an explanation counts as a personal explanation, given my definition of the term alien. Thus, having set aside the ability to make true predictions, explanatory power is the first merit of the alien hypothesis. It is effective in explaining the observations, or it has great efficacy with regards to explaining said observations. If we were to observe a UFO, it may or may not be an alien; however, if we were to discover an alien civilization interested in humans, it would indeed greatly increase the likelihood of said observation. The alien hypothesis similarly does in fact explain supposed alien abduction testimonies; the hypothesis does in fact make the observation quite likely.

2.1.2 Explanatory Scope

Onto the second merit, explanatory scope. By explanatory scope, I understand the broad range of observations that can be accounted for or explained by the theory in question. The alien hypothesis could potentially account for a wide variety of claims or observations; thus, it possesses great explanatory scope. Some other observations that the alien hypothesis could account for are; missing people, ubiquity of belief in ‘heavenly entities’ throughout history, puzzling ancient structures, sightings or reports of other cryptids (such as yetis), the development of scientific knowledge etc. It might even be able to explain certain miracle reports, thus potentially explaining the existence of religion.

2.1.3 Physical and Epistemic Possibility

The third merit is to do with certain types of possibilities. To say that something is *epistemically possible* simply means that, for all we know, it may exist in our world. This should not be confused with the notion of *metaphysical possibility*, which is about whether or not something could exist in some possible world. The alien hypothesis is epistemically possible, i.e. for all we know, technologically advanced intelligent extraterrestrials might really be out there. Moreover, the alien hypothesis has, built within it, *physical possibility*. To say that something is physically possible simply means that the physical laws that govern our universe allow for its existence. Even if the alien hypothesis is interpreted such that it violates *our* incomplete scientific picture of the universe (although it does not have to), the hypothesis already includes the clause that they are not in violation of the physics of the universe *as it really is*. These possibilities jointly constitute the third merit. By contrast, supernatural explanations such as God, are not physically possible, even though they may be epistemically and metaphysically possible. While one may believe in a God that is physically possible, it would not be the God defined in this paper, and hence a different hypothesis. Moreover, such a belief would impact the simplicity/complexity of Theism as a hypothesis (see the sub-section 2.2.3)

2.1.4 Homogeneity

The alien hypothesis allows us to maintain continuity or homogeneity. The view that intelligent life has evolved on various planets across the universe allows us to have a more consistent and elegant picture of life in our universe as opposed to the view that somehow Earth got lucky.

2.2 Demerits

2.2.1 Explanatory Depth

The first demerit is explanatory depth. Explanatory depth may be understood as the thoroughness of an explanation. Thus, when I say the alien hypothesis possesses poor explanatory depth, it means that it raises a number of more unanswered questions. Considering abductions, for example, it is unclear why an alien civilization would be interested in humans in the first place. If they are technologically advanced, they should not need to abduct humans to understand their physiology. Why does not an alien civilization make unequivocal contact with our civilization? Moreover, what sort of life could exist on other planets? Does the likelihood of the evolution of intelligent life allow us to claim that it could? While all these questions may have answers, they are still speculative; thus, the alien hypothesis does not provide a thorough explanation of the observations that it is supposed to explain, for it raises a plethora of new, perplexing questions. This results in low explanatory depth.

2.2.2 *Ad-Hocness*

The second demerit is its degree of ad-hocness. An *ad-hoc* hypothesis or explanation is one that was created specifically to address the problem in question (Barnes, 2022). The alien hypothesis is an extremely ad-hoc explanation, however, the ad-hocness comes to light only when the details of how the hypothesis explains said observations are demanded. Simply asserting there could be extraterrestrial intelligence is not as ad-hoc, for one could say their motivation to do so is the vastness of space. However, when asked to justify how an extraterrestrial intelligence may explain sightings of UFOs that then seem to disappear, the proponent of the alien hypothesis must resort to saying something like they travel via some advanced technology that allow them to avoid being detected, either because they are extremely fast and/or they have discovered some cloaking technology that we are yet to discover. Such an explanation is clearly specifically meant to explain UFO sightings, thus, rendering it extremely ad-hoc. While one may respond that all explanations are ad-hoc to some degree, I still consider this to be a demerit for the alien hypothesis. The reason being, if we compare it to other hypotheses, it still possesses a higher degree of ad-hocness. Take the *jinn* hypothesis as an example, the *jinn*'s ability to shapeshift (Hussein, 2024) does not seem to be specifically invented to explain UFO sightings, it is merely part of various supernatural abilities the *jinn* possess, given Islamic Theology. Thus, what makes the alien hypothesis more ad-hoc is not possessing a radical ability that explains the observation, rather, it is the fact that the ability is postulated to explain said observation.

2.2.3 *Simplicity or Parsimony*

The third demerit is Simplicity or Parsimony. While one may argue that what counts as a simple or parsimonious explanation is debatable, we may safely regard an explanation that postulates fewer entities and has fewer assumptions to be a simpler explanation (Baker, 2022). The alien hypothesis generally postulates numerous entities and has a lot of assumptions considering the fact that proponents of it place a lot of arbitrary limits on their abilities. If we were to explain all observations by one extremely powerful alien, it would further increase the arbitrary limitations on said alien's abilities, thus further increasing the assumptions and further reducing its simplicity. By contrast, Theism is extremely simple, for it postulates just one entity, namely God, who lacks all arbitrary limits (Swinburne, 2004).

2.2.4 *Comparative Explanatory Scope*

Although the alien hypothesis has great explanatory scope as I pointed out in the section discussing its merits, other hypotheses possess even better explanatory scope. Consider, for example, the *jinn* hypothesis. The *jinn* hypothesis is able to explain all the observations that the alien hypothesis is supposed to explain (Hussein, 2024) and is also able to explain all observations that aliens could explain, and may also be able to explain most if not all potential observations that we may appeal to aliens to explain. However, there are observations that the *jinn* hypothesis explains but the alien hypothesis does not. For example, certain reports of paranormal activity, supposed demonic possession (and everything to do with possession), multiple personality disorder, someone possessing knowledge that was possessed only by a dead person (some consider it to be evidence for reincarnation), supposed witchcraft or black magic, etc. This consideration demonstrates that the *jinn* hypothesis has greater explanatory scope than the alien hypothesis, thus, while the alien hypothesis has great explanatory scope, it is still less compared to other hypotheses. Needless to say, Theism has a significantly greater explanatory scope as well.

2.2.5 Comparative Epistemic Probability

By epistemic probability, I understand the measure of epistemic possibility, which I defined earlier. While aliens have a non-zero epistemic probability of existing on most, if not all worldviews, the epistemic probability of the existence of aliens on most, if not all worldviews, is not 100%. Which means that most, if not all worldviews, do not guarantee the existence of aliens. By contrast, many worldviews guarantee the existence of God and even more worldviews guarantee the existence of the Jinn or something similar (like demons). This leads me to consider comparative epistemic probability to be a demerit of the alien hypothesis.

3. In the quest for the best explanation

In this section, I shall be arguing that the jinn hypothesis should be preferred as an explanation of the paranormal over the alien hypothesis. First, I shall merely go the theory comparison route to show that the jinn hypothesis is more theoretically virtuous. I then consider other rival agential explanations that may be offered.

3.1 A brief comparison with the Jinn Hypothesis

Based on what I argued above, we may compare the jinn hypothesis with the alien hypothesis to see how they fair against each other. The comparison shall be a bit rushed since I have discussed the points in detail above already.

Before the comparison though, the first question that needs answering is as follows; how does the jinn hypothesis explain the observations in question? The jinn are creatures that possess free will. Additionally, they are moral agents, thus, they may act morally, immorally or in between. The immoral kind are known to be quite mischievous and are particularly known for trying to deceive people into adopting false beliefs. Moreover, jinns also possess the ability to shapeshift. When these qualities are considered, it is clear that the jinn hypothesis is able to explain a wide variety of such phenomena. At this point, it is important for the reader to recall, had I postulated all of this merely to explain the observations in question, then this hypothesis would have been extremely ad-hoc. However, since this is what jinns are supposed to be like within Islamic theology, as in, this is part of what it means to postulate the existence of jinns, the ad-hocness charge is misplaced. It is also important to note that I am not treating Islamic theology as the explanation of said observations, nor am I assuming it. Rather, I am simply making use of this particular entity it postulates. To doubt the potency of the jinn hypothesis simply because it has Islamic origins would be to commit the genetic fallacy. Moving on to the theory comparison:

When it comes to *explanatory power*, both hypotheses seem to do equally well. Both hypotheses render the expectation of an observation like a UFO sightings or sightings of weirdly shaped beings quite likely. Both hypotheses are highly efficacious in explaining such strange phenomena. As for *explanatory scope*, as I argued above, the jinn hypothesis fairs better. *Physical possibility* would be a virtue in favor of the alien hypothesis as the jinn do not conform to the laws of nature. As for *epistemic possibility*, both hypotheses are epistemically possible. *Homogeneity*, as discussed above, would be a consideration favoring the alien hypothesis. As discussed above, *explanatory depth* is a consideration in favor of the jinn hypothesis. The alien hypothesis has a greater degree of *ad-hocness* as I have argued, thus, it is a consideration in favor of the jinn hypothesis. *Simplicity* is the trickiest one here. For the sake of argument, I am willing to give it to the alien hypothesis as the hypothesis does not postulate supernatural entities, thus, it does not postulate a new kind of entity. However, the simplicity of the alien hypothesis can be challenged, for the arbitrary limitations on aliens seem to be higher than

those on the jinn. Moreover, if it turns out that substance dualism is correct (for which there are good arguments), then the postulation of aliens would not be the postulation of just one kind of substance anymore, considering they are persons. Yet, one may respond that at least we are not postulating scientifically undetectable bodies. Though, it is unclear whether or not that affects simplicity. Additionally, even though I defined jinns as supernatural entities, I did so merely because the stereotypical contemporary naturalist would most likely deny their existence. However, the supernaturalist/naturalist ontological distinction is one that could potentially be challenged as well, which would drastically impact this assessment. Nevertheless, I shall allow simplicity to favor the alien hypothesis. Lastly, as I argued earlier, *epistemic probability* favors the jinn hypothesis. The (rather surprising) results are as follows:

The jinn hypothesis boasts: higher explanatory scope, higher explanatory depth, lower degree of ad-hocness and higher epistemic probability.

The alien hypothesis boasts: physical possibility, homogeneity and simplicity.

Thus, if my assessment is correct, then all else being equal, we should prefer the jinn hypothesis over the alien hypothesis as an explanation of strange phenomena. However, to conclude that the jinn hypothesis is the best explanation, I shall further compare it to other rival hypotheses.

3.2. Rival hypotheses

3.2.1 Angels

The first alternative agential explanation I shall consider is angels. The potency of angels as an explanation is going to depend mostly on how angels are defined. For example, if angels are defined such that they are not free creatures, then their actions would need to be further explained by whatever else is determining them to act a certain way. However, if angels are defined such that they are also free creatures, then the question becomes in what sense are they relevantly different from jinns? Suppose one defines angels such that they are free creatures as well, and postulates that the crucial difference between jinns and angels is that angels cannot act immorally, whereas jinns may or may not act immorally. This reduces the explanatory power, depth and scope of the angel hypothesis. Postulating angles does not seem to make it likely that there would be abduction testimonies, hence reducing its explanatory power. Attempting to explain abduction testimonies using the angel hypothesis also raises significantly more questions than it answers, such as why would a good being act this way, thereby compromising explanatory depth. Moreover, as jinns can act both morally and immorally, its explanatory scope is clearly higher than the angel hypothesis. One may modify the angel hypothesis such that it explains observations in a better way, but that would raise its degree of ad-hocness. Recall, what raises the degree of ad-hocness is not some random ability, it is the fact that the ability is postulated *solely* to explain some observation. All in all, the jinn hypothesis triumphs over the angel hypothesis as well.

3.2.2 Theism

Next, I wish to consider Theism. One may appeal to theism for two reasons: either one genuinely believes theism is the better explanation, or one is attempting to make a parody argument by suggesting that theism could explain most, if not all, observations, and yet we do not normally prefer it as an explanation. The later suggestion is mistaken, for if granted, all that would mean is that theism has the greatest explanatory scope. That alone does not guarantee that it would possess most if not all other theoretical virtues, which is why we do not normally prefer it as an explanation. Whether one wishes to make a parody argument by

suggesting theism, or genuinely considering it, the response shall remain the same; the jinn hypothesis is more virtuous when it comes to explaining the phenomena we are interested in explaining. Theism's greatest advantage is its simplicity. However, when it comes to explaining something like UFO sightings, or abduction testimonies, or say yeti sightings, it fails to boast other theoretical virtues. For starters, it is unclear how Theism is supposed to explain UFO sightings or abduction cases. Even if it could, it would face various challenges, for example, simply postulating God does not make UFO sightings likely, or at least not as likely as the alien or jinn hypothesis, thereby compromising explanatory power. Additionally, like the angel hypothesis, theism also raises more questions about the observations; is God actually causing an abduction scenario to play out or merely creating an illusion? Why is he doing so? This lack of thoroughness reduces explanatory depth. However, the biggest worry that results from trying to explain said observations by appealing to Theism is an epistemic worry. Suppose one does admit that God is causing abduction scenarios to play out without any clarification whatsoever, it risks rendering God a deceiver. Rendering God a deceiver makes it harder to rule out radical skepticism. For we have no way of ruling out the hypothesis that God is deceiving us about other things we take for granted, such as the knowledge of the reality of the external world.

3.2.3 Crypto Terrestrials

By a crypto terrestrial or ultra-terrestrial, I understand an unidentified or undiscovered bio-chemical life form that is in some sense hidden from us yet present on earth and could potentially serve as an explanation of said phenomena (Lomas et al., 2024). Crypto terrestrials, like extraterrestrials, are also meant to be technologically advanced. Thus, they are similar to the alien hypothesis with one exception, namely, they do not possess the theoretical virtue of homogeneity. Other than that, my assessment of them would be identical to my assessment of the alien hypothesis. An objection one might raise here is that, unlike the alien hypothesis, we have some independent evidence for the existence of crypto terrestrials. However, it seems to me that most, if not all, such evidence could be explained by the alien hypothesis (or even the jinn hypothesis) as well, without any significant loss of theoretical virtue. Additionally, the explanatory scope of crypto terrestrials is smaller than that of the alien or jinn hypothesis, since the later can explain phenomena that may be observed on other planets. One may postulate a supernatural crypto-terrestrial instead of a biochemical life form, which, however, seems to me to be pretty much identical to the jinn hypothesis.

3.2.4 Humans

Lastly, I must consider one more agential explanation, one that is often brought up in such discussions and is relatively lackluster, namely, human beings. This explanation has a considerably low explanatory scope, disregards the nature and details of the testimonies in question, possesses low explanatory depth, low explanatory power, is going to have a painfully high degree of ad-hocness and the assumptions shall render it extremely complex. The sole advantage of appealing to humans is that we do not need to postulate a new entity, however, this alone is not enough to dispel the problems it raises. Perplexingly, a lot of people prefer this explanation, perhaps the 'fear of the unknown' is at play here.

Conclusion

In this paper, I tested the alien hypothesis for theoretical virtues. I did so after assuming we do not have any existing scientific explanation of the observations that proponents of the alien hypothesis claim are best explained by appealing to alien intervention. I also did not consider

any observation (or lack of a certain observation) that would challenge the alien hypothesis. I instead presented an assessment of the alien hypothesis granting many of the assumptions that proponents of it accept. I also compared the alien hypothesis to other hypotheses to illustrate some of my points. Overall, my assessment results in the conclusion that while the alien hypothesis boasts certain merits, it has more demerits. Consequently, rival hypotheses, particularly the jinn hypothesis, should be preferred over the alien hypothesis. I argued this by first comparing the jinn hypothesis to the alien hypothesis. I then argued that the jinn hypothesis is the best explanation by comparing it to other rival hypotheses as well.

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