Pre-proof. Final version: DOI: 10.37977/faithphil.2020.37.2.6

DETERMINING THE NEED FOR EXPLANATION

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Several theistic arguments are formulated as arguments for the best explanation. This article discusses how one can determine that some phenomenon actually needs an explanation. One way to demonstrate that an explanation is needed is by providing one. The proposed explanation ought to either make the occurrence of the phenomenon in question more probable than it occurring by chance, or it has to sufficiently increase our understanding of it. A second way to demonstrate that an explanation is needed is to show that the phenomenon in question both violates our expectations and is particularly noticeable.

1. Introduction

Theistic arguments are often formulated as abductive arguments, stating that God is the best explanation of a certain phenomenon. One way of disputing such arguments is to claim that the phenomenon in question does not need an explanation. Take for instance the BBC radio debate on the existence of God with Frederick Copleston and Bertrand Russell. Copleston asks why there is anything at all, and holds that the fact that there is something – that there is a universe – requires an explanation. Russell, to the contrary, holds that the universe does not need an explanation, stating that "the universe is just there, and that's all."[1] Moreover, consider fine-tuning arguments for the existence of God. Some argue that a universe fine-tuned for life would require an explanation and that the best explanation is God. Others argue that a fine-tuned universe would not need an explanation because it could be the result of pure chance, like a cosmic lottery where we got lucky enough to draw the universe fine-tuned for life.[2] Lastly, consider moral arguments for the existence of God. Some argue that moral facts – or the possibility of moral knowledge – needs an explanation and that God is the best explanation.[3] Others argue that moral facts just exist, that they are brute facts not in need of any explanation.[4]

It might be unclear, and open to dispute, whether a certain phenomenon needs an explanation. In this article, I establish some criteria that can identify cases in which

[1] Copleston and Russell, "Debate on the Existence of God."
[2] Lewis and Barnes, *A Fortunate Universe*, 9.
[3] Evans, "Moral Arguments for the Existence of God."
[4] Wielenberg, *Robust Ethics*, 38.

an explanation is needed. With such criteria in place, one could demonstrate that a certain phenomenon is in need of an explanation, and possibly go on to argue that God is the best explanation.

As I try to establish criteria to determine that something needs an explanation, I do not mean that these criteria make something need an explanation. There is a distinction, at least a conceptual distinction, between what determines that something needs an explanation and what makes something need an explanation. What constitutes a need for an explanation is the fact that there is an explanation to be found, so that an explanatory story can be told that increases our understanding of the matter at hand. The criteria are only meant to positively identify cases in which there is an explanatory story to be told. The "need" for an explanation, then, is not to be understood merely in the psychological sense that we feel a need to come up with an explanation, but in the sense that there really is an explanation to be found, such that the phenomena in question is not properly understood without an explanation.

2. I Did Not Expect That

Some things might just happen to be the case, as there might be brute facts that need no explanation.[5] Some things might be the result of pure chance and need no explanation beyond an appeal to chance. For instance, there might be no need to explain why I won the lottery beyond an appeal to chance.[6] Other things might need an explanation. This might be things that are not purely but partly due to chance or not due to chance at all.[7] There are some paradigm examples of what does and what

[5] Some might think that all necessary facts fall in the category of not needing explanation. I do not think that is the case. When someone asks for an explanation a necessary and analytic fact – such as "all bachelors are unmarried" – it can be explained by the meaning of the terms used. Moreover, discussions concerning the notion of grounding seem to show that some necessary entity might be grounded in some necessary entities. For instance, it might be the case that God grounds necessary facts such as various abstracta, entailing that these have their explanation in God (see Davidson, "God and Other Necessary Beings.") Some necessary entity, such as God, might not be grounded in anything else. As nothing makes God exist, his existence cannot be explained by appeal to something else but perhaps by appeal to some essential feature of God, for instance, that God is, in the words of Paul Tillich, unconditioned. Note that explaining why we should think that God exists is different from explaining why God exists.

[6] I might, of course, explain *how* it happened that I bought the lottery ticket, and how the lottery machine is programmed to randomly select lottery tickets. But to give a further explanation of "*Why* did *I* win?" would, in my view, be misguided. However, the argument in this paper is not bound to a specific view on whether all things need explanation or not. It leaves open whether every event has an explanation or some events lack an explanation. All it assumes is that *some* events have an explanation.

[7] According to evolutionary theory, the diversity of living things is not a result of pure unconditional chance. Rather, chance is one condition among many. Note that the evolutionary theory of natural selection explains how rational life came to be, not why it came to be. William Paley makes this point in his *Natural Theology*, 12, 15. Some might, as for instance Daniel Dennett does in *Darwin's*

does not require an explanation. If a monkey is sitting in front of a typewriter and happens to type "nie348n sio 9q," this would not be in need of an explanation. If, on the other hand, a monkey types "I want a banana!," this would cry out for an explanation.[8] However, it is difficult to say anything definite about what criterion needs to be fulfilled for something to require an explanation. The lack of such a criterion makes a blurry line between what is in need of an explanation and what's not: would it require an explanation if the monkey typed "bannanna," or would that be just a cool coincidence?[9]

Some philosophers have suggested that it is the unexpected or the surprising that is in need of an explanation.[10] Note that *surprising* is not the same as *unlikely*. It is very unlikely that a monkey types "nie348n sio 9q," but not very surprising. It strikes us as more surprising that Jim won three lotteries in a row each with a thousand participants than that Jane won a lottery with a billion participants – even though the probability is the same.[11] Now, while surprise may make us look for an explanation, explanations will typically demonstrate how the surprising is not that surprising after all. New scientific theories will often set out to make the puzzling and surprising understandable, and it seems to constitute evidence in support of the theory when it manages to make a certain matter of fact less surprising.[12] Concerning theistic arguments, one may argue that a fine-tuned life-permitting universe is a surprising matter of fact, and furthermore, argue that the God hypothesis makes it less surprising. However, while surprise is often what makes us look for an explanation, surprise in itself is neither sufficient nor necessary for something to need an explanation. We often explain phenomena that are both familiar and unsurprising, such as why the ocean is blue,[13] and we are often surprised when we win the lottery, even though winning the lottery should just be treated as a happy coincidence that does not need any further explanation.[14] Therefore, surprise is not a good criterion for marking out what needs an explanation.

A more promising suggestion comes from philosopher Roger White who suggests that a matter of fact calls for an explanation when it challenges our assumptions

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Dangerous Idea, argue that there is no answer to the question of *why* rational life came to be – which takes us back to the question of how to determine whether some phenomenon needs an explanation.

[8] White, "Fine-Tuning and Multiple Universes," 270.

[9] Bohn, "Why This Universe?" 136.

[10] Grimm, "Explanatory Inquiry and the Need for Explanation," 485. Examples of supporters of such a view are Hempel, *Aspects of Scientific Explanation*, 430; Friedman, "Explanation and Scientific Understanding," 9–11.

[11] Horwich, *Probability and Evidence*, 95.

[12] Leslie, *Universes*, 141. As Leslie points out, a Bayesian consideration has to be made. If the theory is a very unlikely one, making the surprising understandable might raise the likelihood of the theory but not enough to warrant acceptance. See also Plantinga, *Where the Conflict Really Lies*, 223–224.

[13] Lipton, *Inference to the Best Explanation*, 25.

[14] White, "Explanation as a Guide to Induction," 3.

about the circumstances that brought it about.[15] If we assume that the monkey sitting at the typewriter is typing randomly, this assumption would be challenged when we see the monkey typing "I want a banana!" I take White's account to be on to something, but it needs further clarification, especially concerning what exactly it is that makes us challenge our assumptions.

Philosophers such as Paul Horwich and John Leslie might give some further clarification to what it is that makes us challenge our assumptions. Both Leslie and Horwich treat explanation in a probabilistic manner. To explain a matter of fact is regarded as showing that there is a decent chance that it would occur, and thereby showing that this matter of fact is to be expected. More specifically, to explain something is to show that there is a possible account of the circumstances, a possible but not too improbable hypothesis, that makes the occurrence of this matter of fact more probable than it merely happening by chance.[16] For instance, if you get dealt a bridge hand containing 13 spades, you know that the likelihood of you getting this hand by chance is rather low. You also know that the likelihood of you getting this hand, given the hypothesis that the dealer is cheating, is a lot higher. The hypothesis that the dealer is cheating thus explains why you got dealt 13 spades, and it did so by making it more probable. Leslie asks the following question: what was it that made you realise that the 13 spades needed an explanation? You realised it needed an explanation when you saw a possible way in which it could be explained. So, if one lets Horwich and Leslie fill out White's account of what needs an explanation, the result is a more precise criterion.[17] According to White, some matter of fact needs an explanation when it challenges our assumptions, and according to Leslie, our assumptions are challenged when we see a possible explanation.

By saying that something requires an explanation when it challenges our assumptions, and that our assumptions are challenged when we see a possible explanation, we have a criterion that can be used to positively identify cases that need an explanation. Take for instance the monkey typing "I want a banana!" This sequence requires an explanation as we can see a possible explanation of it, such as the hypothesis that the typewriter is rigged or that the monkey was trained in typing. However, this criterion will not once and for all sort out the blurry line between what is in need of an explanation and what's not, partly because it will not help to

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[15] White, 3. See also Lewis and Barnes, *A Fortunate Universe*, 241; Leslie, *Universes*, 141.

[16] Leslie, *Universes*, 121; Horwich, *Probability and Evidence*, 100–104. Note that the raising of probability might not be a necessary condition for all types of explanations. Peter Railton argues that a type of explanation can be given to things that happen by pure chance, an explanation which does not raise the probability of the matter of fact occurring. For instance, says Railton, we can explain why a radioactive element decayed by citing quantum mechanical laws, even though these laws give a very low probability to the element decaying exactly when it did (Railton, "A Deductive-Nomological Model of Probabilistic Explanation," 216.).

[17] In the paper written in 2000, White specifies his account by turning to Horwich. However, in his main article on this subject written in 2005, he does not mention Horwich.

identify things that do not need an explanation.18 We might have some matter of fact at hand which seemingly does not need an explanation because we are not, at the moment, able to see an explanation. However, that might change if we at a later time suddenly grasp a possible explanation. So, the criterion cannot be used to determine that a certain matter of fact is not in need of an explanation. Despite this limitation, I take the criterion to be useful as it at least makes us able to positively identify some things that require explanation.

One might object that the criterion of "being able to see a possible explanation" is too easy to fulfil. It would seem as if every matter of fact can be given a possible explanation, which would mean that everything requires an explanation. Take for instance the cases of winning a game of cards and unexpectedly meeting an old friend. A possible explanation of why I won a game of cards is that God wanted me to win, and a possible explanation of why I unexpectedly met an old friend of mine is that I must be dreaming. But these cases can hardly be said to require an explanation, which would mean that the criterion lets in too much. One way of solving this would simply be to raise the bar of what counts as a satisfying possible explanation. One might say that not all explanations are good enough to show that an explanation is required. This is exactly what Leslie and Horwich hold. As briefly stated above, they do not talk merely of possible explanations, but of explanations that are possible but not too improbable. That an explanation cannot be too improbable follows naturally from their probabilistic understanding of explanation: Let's say that situation S occurs, and in order to account for S we propose explanation E. If S is a bit unlikely, and E is extremely unlikely, then S happening by pure chance will be much more likely than S happening given E. This is to say that chance is preferable to a too unlikely explanation, and if chance is preferable to the proposed explanation, then the explanation should be dismissed. So, the requirement that explanations cannot be too improbable is a quite useful requirement to ensure that the need for an explanation does not come too cheaply.

Stating that an explanation cannot be too improbable is quite vague. One might wonder exactly how improbable a possible explanation can be and still warrant the need for an explanation. Consider the case of a lottery winner who has a friend who works at the lottery company headquarters, a friend that for all we know might be in a position to fix the lottery. We can see a possible explanation of why this person won the lottery. Does this possible explanation warrant the claim that an explanation is needed, or is the proposed explanation too improbable? I would say that it is unclear whether an explanation is needed in this case. As said above, while this criterion is meant to positively identify cases that need an explanation, it will not once and for all sort out the blurry line between what is in need of an explanation and what's not. Some cases might resemble that of the monkey typing "I want a

[18] For a suggestion on how to identify that some matter of fact does not need an explanation, see White, "Explanation as a Guide to Induction," 3.

banana!," where it is clear that we have a possible explanation that is good enough to show that an explanation is needed. Other cases might be more like the monkey typing "bannanna," where it is unclear if there is a possible but not too improbable explanation available, and unclear if an explanation is needed.

When Leslie and Horwich point out that not all explanations are good enough, or likely enough, to demonstrate the need for an explanation, one might wonder whether an explanation featuring God is likely enough. While some scholars think theistic hypotheses are highly plausible, others judge them as highly improbable, suggesting that theistic explanations are too controversial to demonstrate the need for an explanation. A couple of things should be said to this point. First, it is not the case that all the available evidence counts in favour of the existence of God, nor that all the available evidence counts against. As with most contested philosophical theses, it has strengths that increase its plausibility and weaknesses that decrease it.

Second, not all theistic hypothesis should be judged alike. Bayesian considerations shed light on why this is so. When considering how likely it is that some hypothesis H explain phenomena P, one should not only consider the prior probability of H – in this case the likelihood of theism – but also the probability of P occurring given H and the probability of P occurring anyway, regardless of H. Some theistic hypothesis may have such low prior probability that it should be judged too unlikely to demonstrate the need for an explanation. Take for instance ad hoc explanations. One could propose that a universe full of carbon need to be explained because we have the possible explanation that God loves carbon. However, as nothing in our general background knowledge makes it likely that God is a carbon-loving God, the prior probability of this hypothesis makes the explanation too unlikely. Other theistic explanation of some phenomena may be judged too unlikely because P might plausibly happen anyways. Proponents of intelligent design might argue that some biological phenomenon, such as the eye, needs an explanation, namely intentional design, but such cases are often contested by showing that the phenomenon would plausibly occur anyway. However, if a theistic hypothesis makes some phenomenon very likely, for instance a universe fine-tuned for life and consciousness, and this phenomenon is otherwise very unlikely to occur, then Bayesian considerations point out that the likelihood of the explanation is high even if the prior probability of the hypothesis is considered rather low.[19] So, at least some explanations featuring God should be considered "possible and not too improbable."

Until this point, I have assumed Horwich and Leslie's understanding of what an explanation is. As they hold that an explanation is a matter of raising probability, they also hold that you demonstrate that some matter of fact is in need of an

[19] And by an inference to the best explanation, one might show how the explanatory ability of a theistic hypothesis increases its likelihood.

explanation when you present a theory that increases the likelihood of this fact occurring. This way of demonstrating the need for an explanation works well in some cases. For instance, the cheat-hypothesis increases the likelihood of you getting dealt 13 spades, demonstrating the need for an explanation, and the God-hypothesis increases the likelihood of a fine-tuned universe, thereby demonstrating that an explanation is in order. Now, while some abductive arguments are formulated in a manner of raising probability – the fine-tuning argument is a good example[20] – a lot of abductive arguments use a different conception of explanation. In his book on inferences to the best explanation, philosopher Peter Lipton makes a distinction between likely explanations and lovely explanations.[21] A likely explanation is one that is likely to be true as it raises the probability of the occurrence of the thing explained. A lovely explanation is one that provides understanding, one that makes us see how this phenomenon fits together with other phenomena into a coherent whole.[22]

When providing inferences to the best explanation, Lipton almost exclusively looks for the best explanation in the sense of the loveliest explanation, the explanation that provides the most understanding. A lot of theistic arguments do the same. Cumulative cases for theism typically show how the God-hypothesis makes for a better understanding of reality as it makes us see how several features of the world come together in a coherent whole.[23] Moral arguments for the existence of God typically shows how the God-hypothesis increases our understanding of certain moral phenomena – be that moral normativity, the possibility of moral knowledge, or moral obligations.[24] In these cases, where providing an explanation is not about increasing probability but increasing understanding, how does one demonstrate that the phenomenon in question requires an explanation? One cannot, as Horwich and Leslie do, point at how the hypothesis in question raises probability. But that is no worry. Horwich and Leslie's account of how to determine that something needs an explanation is not tied to their account of what it is to explain something. One can agree with Leslie and Horwich in that we identify matters that need an explanation by being able to provide an explanation, while at the same time holding a different conception of how we identify the explanation. In the context of lovely

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[20] Collins, "The Teleological Argument."
[21] Lipton, *Inference to the Best Explanation*, 59; Lipton, "Is Explanation a Guide to Inference?," 105.
[22] Lipton, *Inference to the Best Explanation*, 139. Lipton calls this a unification conception of understanding, where the basic idea is that we increase our understanding of the world by reducing the total number of independent phenomena that we have to accept as ultimate or given. A world with fewer independent phenomena is, other things equal, more comprehensible than one with more independent phenomena. The concept of a lovely explanation is very similar, if not identical, to the concept of a coherent explanation. See also Friedman, "Explanation and Scientific Understanding," 15.
[23] See for instance Evans, *Natural Signs and Knowledge of God*.
[24] Layman, "God and the Moral Order"; Ritchie, *From Morality to Metaphysics*, chap. 2; Adams, *Finite and Infinite Goods*, chap. 10.

explanations, we identify that a matter of fact requires an explanation when we see a possible explanation that increases our understanding.[25]

3. Sufficient Condition or Necessary Condition?

Until now, I have said that a matter of fact calls for an explanation when it challenges our assumptions, and our assumptions are challenged if we can see a possible but not too improbable explanation. One might wonder if being able to see a possible explanation should be treated as also a necessary condition for something to require an explanation or if it should be treated as merely a sufficient condition. Horwich treats it as a necessary condition. While he does not explicitly say that it is a necessary condition, he says that if this condition is not fulfilled, we have no reason to expect that an explanation is needed.[26] Leslie holds that it is at least a chief reason for holding that something is in need of explanation, and possibly the only reason.[27] Einar Bohn follows in Horwich's steps and explicitly states that being able to glimpse a possible explanation is a necessary condition for something to require an explanation.[28]

White, in contrast, does not seem to treat the ability to glimpse a possible explanation as a necessary condition. While he does not speak explicitly on this issue, he writes that when "billions of pebbles are found arranged in simple geometric patterns, we might not know exactly what to conclude, but we have reason to question our initial assumptions about the circumstances that brought this about."[29] Here, White says that we can have reason to question our initial assumptions, which means that an explanation is needed, even if we are not able to see a possible explanation. I take White to be correct on this matter. While there are situations where it is the fact that you can see a possible explanation that gives you a reason to believe an explanation is needed, this might not always be the case. There might be situations where you cannot come up with an explanation, but you still have reason to think that an explanation is needed. Let me construct a typewriter example in which this is the case: Let's say I saw a monkey typing "I want a banana!," and I knew both that the typewriter had not been tampered with and that the monkey was not trained in typing anything. I would have no clue how to explain that the monkey typed this sentence, but I would still have reason to think there must be some explanation. Therefore, it is too restrictive to say that if

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[25] To avoid a criterion that is too easy to fulfil, the explanation has to be, in Lipton's words, "sufficiently good" – it has to provide enough understanding to warrant an inference to the truth of the explanation and to demonstrate the need for an explanation. What exactly amounts to *enough* understanding is, according to Lipton, a matter of judgment. Lipton, "Is Explanation a Guide to Inference?" 104; Lipton, *Inference to the Best Explanation*, 154.
[26] Horwich, *Probability and Evidence*, 102–103.
[27] Leslie, *Universes*, 10.
[28] Bohn, "Why This Universe?" 136.
[29] White, "Explanation as a Guide to Induction," 3.

something is to require an explanation, it is a necessary condition that we can actually formulate a possible explanation. As an explanation can be in order even if this condition is not fulfilled, it should rather be considered a sufficient condition.[30]

While White says that we might have reason to hold that some matter of fact requires an explanation even if we cannot see any possible explanation, he does not say what it is that gives us such reason. So, what other condition than seeing a possible explanation would be sufficient for something to require an explanation? It seems to me that if a matter of fact violates our expectations, in the sense that its occurrence is not to be expected given other beliefs that one holds,[31] while at the same time being particularly noticeable, then an explanation is in order. What I have in mind when saying "particularly noticeable" is what White calls the salience condition. White states that if X is a member of a class in which none of the members stands out any more than the others, and if some member of this class were bound to obtain, then X is not in need of explanation.[32] A good example of such a case is winning the lottery. In a lottery drawing, none of the ticket buyers stands out as any more noticeable than any other, and one of the buyers is bound to win. If I do not win, someone else will win instead. This is to say that my winning the lottery is not particularly noticeable. And because winning the lottery is not particularly noticeable, it does not need an explanation, even though it might violate my expectation. Now, if violating expectations while at the same time being particularly noticeable is sufficient to require an explanation, then it is possible to confirm that the previous typewriter case is in need of an explanation. In this previous typewriter case, we knew that the typewriter was not tampered with and that the monkey was not trained in writing, so we had no idea how to explain that the monkey typed "I want a banana!" As such, we could not determine that this case needed an explanation by providing one. However, because a monkey typing "I want a banana!" is not to be expected given other beliefs that one holds, and because this sequence is particularly noticeable – it stands out from other possible meaningless sequences such as "nie348n sio 9q" – we can determine that an explanation is needed.

I take these two criteria to be two independent ways of demonstrating that an explanation is needed. However, there might be cases where there is a connection between the two. There might be cases where you take some phenomenon to be

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[30] Lipton notes that even making us question our initial assumptions, which is White's suggestion of what makes something need an explanation, is not necessary for something to require an explanation. Just think of all the familiar things that we try to explain, such as why the ocean is blue (Lipton, *Inference to the Best Explanation*, 26).

[31] This formulation is not far from what Lipton suggests (Lipton, 25).

[32] White, "Explanation as a Guide to Induction," 3, 5. Actually, White writes that no member stands out as "any more *in need of explanation* than any other would" (my emphasis). This is an unfortunate formulation. The salient condition would be threatened by circularity if what makes F not require an explanation is that F is a member of a set where none of the members is in special need of an explanation.

particularly noticeable because you have some vague idea of a possible explanation that might increase our understanding of it. For instance, in the typewriter case above, you might not be able to give a precise explanation, but you conclude that a monkey typing "I want a banana!" is particularly noticeable because it seems to demonstrate intentionality. You do not know exactly how to spell out this explanation, but a vague idea of an explanation gives you reason to think that something particularly noticeable is going on. In this case, there is a connection between how you can fulfil the "particular noticeable" part in the second criterion and how you fulfil the first criterion, namely, glimpsing an explanation. In other cases, there might not be such connection. For instance, without knowing anything about echolocation, you do not expect bats to navigate with great accuracy in complete darkness. You also think this navigation is particularly noticeable, not because you have any idea how to explain it, but because bats in this manner stands out from other birds and animals – they stand out both in the sense that they navigate in complete darkness and in the sense that they are literally blind as a bat.

As with the first criterion, this second criterion does not draw a clear-cut line between what is in need of an explanation and what's not. While there are some clear cases of phenomena that are both unexpected and particularly noticeable, it is not always clear whether some phenomenon is particularly noticeable. As in the example with the monkey typing "bannanna," we must ask ourselves whether "bannanna" is something special, or if it belongs to the set of equally non-special meaningless sequences. Some might say it is a special sequence that needs an explanation, but reasonable people could disagree. Such disagreement is present in the literature on the fine-tuning argument. Some take a life-permitting universe to stand out from the numerous possible universes that are not fine-tuned for life. Others argue that it is not particularly noticeable. Bohn argues that a complex life-permitting universe results from the same kind of simple algorithms, based on the same simple dimensions and properties, as universes with no life.[33] So, some may think that a phenomenon stands out as particularly noticeable while others don't, making it disputable whether an explanation is needed or not.

[33] Bohn, "How Cellular Automata Dissolve the Fine-Tuning Argument," 119. I do not agree with Bohn on this point. As Bohn argues in an earlier article, "Why This Universe?", there is a difference between explaining how and explaining why. An explanation of how I came to town does not eliminate the need to explain why I came to town, an explanation of how life evolves does not eliminate the need to explain why life has evolved in the first place, and an explanation of how rational life came about does not eliminate the need to explain why. So, the question of "why this universe" still stands. What Bohn's proposal in this later article may show, is that the causal mechanisms describing how life came about are not particularly noticeable; the *how* is not particularly noticeable. But as the early Bohn points out, the *why* may still be noticeable.

4. Conclusion

In this article, I have presented two sufficient conditions for something to require an explanation. One condition is that a possible explanation can be formulated. Here, the proof is in the explanatory pudding; if you can formulate an explanation that sufficiently increases the probability, or provides sufficient understanding, you have demonstrated that an explanation is needed. Another condition is that the matter of fact both violates our expectations and is particularly noticeable. Both of these conditions leave room for cases where it is not clear whether an explanation is needed or not. However, in cases where one condition is inconclusive, the other might come to the rescue. You might not be able to formulate an explanation of the bats ability to navigate in total darkness, so that the first condition is not fulfilled, but you may be able to show that an explanation is needed by the second condition. Moreover, you might not be able to show that a life-permitting universe is particularly noticeable, so that the second condition is not fulfilled, but you might be able to give an explanation that increases our understanding of this phenomenon, so that the first condition is fulfilled. So, the two conditions might complement each other.[34]

[34] Thanks to Einar Bohn, Jan-Olav Henriksen, Mark C. Murphy, Atle Ottesen Søvik and two very helpful anonymous referees for comments.

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