"How to Confirm a Miracle"

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The evidentialist approach to theism relies on evidence to confirm (or disconfirm) the central tenets of theism.[1] Although the methodology involved in measuring confirmation is commonly associated with scientific theories, the machinations of confirmation theory can be applied to propositions of almost any sort, including religious claims.[2] In this paper, I intend to explain one way to apply confirmation theory to a special class of religious propositions—propositions about the veracity of miraculous events.

I.

Much ink has been spilt in the attempt to define a "miracle." Although I do not intend to improve on the vast literature on this subject, it is important that I state briefly what kind of event I am denoting by the term "miracle."[3] For my purposes, a miraculous event must necessarily be (i) performed by a god, (ii) a violation, suspension, breaking, or intervention of some law of

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[1] The evidentialist approach is exemplified classically by William Paley, *Natural Theology* (Oxford: Oxford University Press, 2006; originally 1802), and in contemporary works such as Richard Swinburne, *The Existence of God*, 2d ed. (Oxford: Oxford University Press, 2004) and George Schlesinger, *Religion and the Scientific Method* (Dordrecht, Holland: D. Riedel, 1977).

[2] Richard Swinburne, *An Introduction to Confirmation Theory* (London: Methuen & Co., 1973), 5: "Probability on evidence, or epistemic probability, may be ascribed to propositions of all kinds—moral, aesthetic, and theological propositions, as well as historical and scientific ones."

[3] My definition of "miracle" loosely follows that given by Richard Swinburne, *The Concept of Miracle* (New York: St Martin's Press, 1970), 1-11, Richard L. Purtill, "Defining Miracles," in *In Defense of Miracles*, ed. R. Douglas Geivett and Gary Habermas (Downers Grove, IL: InterVarsity, 1997), 61-72, George Schlesinger, "Miracles," *A Companion to Philosophy of Religion*, ed. Philip Quinn and Charles Taliaferro (Malden, MA: Blackwell, 1999), 360-66, William Lane Craig and J. P. Moreland, *Philosophical Foundations for a Christian Worldview* (Downers Grove, IL: InterVarsity, 2003), 565-72, and George I. Mavrodes, "Miracles," in *The Oxford Handbook of Philosophy of Religion* (Oxford: Oxford University Press, 2005), 304-22.

nature, and (iii) performed for some divine purpose. I shall briefly elaborate on what I mean by these necessary conditions for an event to qualify as a miracle.

My first condition for some event to count as a miracle is that a god must bring about the event. Consequently, extraordinary and improbable events that are not brought about by a personal, supernatural agent fall short of my definition of a miracle. If a god exists, presumably he could perform many actions, and it would not be the case that all of the god's actions would count as miraculous. For example, in the Christian tradition, a distinction is made between divine acts of *providence* and miracles. Miracles are conceptually distinguishable from acts of divine providence insofar as events classified as "divine providence" involve no divine action that violates, suspends, breaks, or intervenes on a law of nature.[4] Thus, my second condition makes a distinction between all divine actions and a narrower class of divine actions that could qualify as miraculous.

Finally, miraculous events are performed for a divine purpose. A miracle, as I use the term, includes only events that a god performs for some significant reason. One plausible suggestion, offered by Richard Purtill, is that a miraculous event intends "to show that God is acting."[5] The important aspect of this final qualification is that purposeless divine actions that violate, suspend, break, or intervene in the laws of nature do not fall under the class of miraculous events. In other words, a capricious divine act (if such a concept is coherent) would not count as a miracle on my view. The concept of miraculous events includes that there is a purpose in the god's action.

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[4] The precise way one wishes to formulate this point (i.e., "violates, breaks, suspends, or intervenes on a law of nature") depends crucially on the way one understands the "laws of nature." On this point see Swinburne, *Concept of Miracle*, 2-3 and Craig and Moreland, *Philosophical Foundations*, 566-68.

[5] Purtill, "Defining Miracles," 64.

II.

My approach draws on the Bayesian analysis of the justificatory effects of testimony to illustrate the confirmation of independent eyewitness testimony.[6] In its general form, Bayes's Theorem models the confirmation of some testimony (T) for a miracle (M) thus:[7]

$$P(M \mid T) = \frac{P(M) \times P(T \mid M)}{P(T)} = \frac{P(M) \times P(T \mid M)}{P(M) \times P(T \mid M) + P(\sim M) \times P(T \mid \sim M)}$$

In the case that there are *n* independent, equally reliable testimonies to a single miracle, the following equalities hold:[8]

$$P(T^1 \& \ldots \& T^n) = P(T^1) \times P(T^2) \times \ldots \times P(T^n) = P(T)^n$$

$$P(T^1 \& \ldots \& T^n \mid M) = P(T^1 \mid M) \times P(T^2 \mid M) \times \ldots \times P(T^n \mid M) = P(T \mid M)^n$$

$$P(T^1 \& \ldots \& T^n \mid \sim M) = P(T^1 \mid \sim M) \times P(T^2 \mid \sim M) \times \ldots \times P(T^n \mid \sim M) = P(T \mid \sim M)^n$$

Given these equalities, Bayes's theorem can be expanded in the following way:

$$P(M \mid T^n) = \frac{P(M) \times P(T^1 \& \ldots \& T^n \mid M)}{P(M) \times P(T^1 \& \ldots \& T^n \mid M) + P(\sim M) \times P(T^1 \& \ldots \& T^n \mid \sim M)}$$

$$= \frac{P(M) \times P(T \mid M)^n}{P(M) \times P(T \mid M)^n + P(\sim M) \times P(T \mid \sim M)^n}$$

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[6] *Cf.* George N. Schlesinger, "Miracles and Probabilities," *Noûs* 21 (1987): 219-32; idem, *New Perspectives on Old-Time Religion* (Oxford: Oxford University Press, 1988), 100-119; idem, "The Credibility of Extraordinary Events," *Analysis* 51, no. 3 (1991): 120-26; Rodney D. Holder, "Hume on Miracles: Bayesian Interpretation, Multiple Testimony, and the Existence of God," *British Journal for the Philosophy of Science* 49 (1998): 49-65; Earman, *Hume's Abject Failure*; Timothy J. McGrew, "Has Plantinga Refuted the Historical Argument," *Philosophia Christi* 6, no. 1 (2004): 21-22; Timothy and Lydia McGrew, "On the Historical Argument: A Rejoinder to Plantinga," *Philosophia Christi* 8, no. 1 (2006): 34-37.

[7] For ease of reading and presentation, I have removed the ubiquitous background knowledge from all probability notations.

[8] These equalities are taken from Holder, "Hume on Miracles," 54-56.

Rodney Holder and John Earman take note that this ratio is now in the form $\frac{A}{A+B}$, and they find it useful to divide all terms by the "*A*" term, resulting in the following version of Bayes's theorem that is simpler for the purposes of measuring the confirmation conferred by testimony:

$$P(M|\ T^n) = \frac{1}{1+\frac{P(\sim M)\times P(T\,|\sim M)^n}{P(M)\times P(T\,|\,M)^n}} = \frac{1}{1+\left(\frac{P(\sim M)}{P(M)}\right)\times\left[\frac{P(T\,|\sim M)}{P(T\,|\,M)}\right]^n}$$

George Schlesinger and Timothy McGrew prefer dividing $P(M \mid T^n)$ by $P(\sim M \mid T^n)$. The results can be seen below by dividing (1) by (2), resulting in a ratio-measure conducive to calculating the effects of testimony:

(1) $P(M\,|T^n) = P(M)\times P(T \mid M)^n \div P(T)$

(2) $P(\sim M\,|T^n) = P(\sim M)\times P(T \mid \sim M)^n \div P(T)$

Dividing (1) by (2), yields the following:

$$\frac{P(M\,|\,T^n)}{P(\sim M\,|\,T^n)} = \frac{P(M)}{P(\sim M)}\times\frac{P(T\,|\,M)^n}{P(T\,|\sim M)^n}\div\frac{P(T)}{P(T)} = \left(\frac{P(M)}{P(\sim M)}\right)\times\left[\frac{P(T\,|\,M)}{P(T\,|\sim M)}\right]^n$$

The difference between the Holder-Earman and Schlesinger-McGrew approach to the precise Bayesian modeling of testimonial confirmation on miracles is only stylistic. (I will continue to use the Schlesinger-McGrew approach through the rest of this paper since I find that format more intuitive.) No matter which Bayesian model one adopts, when using the same values for the same variables, the results will be identical. In the final form of both versions, I have added rounded parentheses – '( )' – to highlight the *prior probability ratio* and square parenthesis – '[ ]' – to mark the *likelihood probability ratio*. Presumably the prior probability ratio will be strongly weighted against the occurrence of a miracle because $P(M) \ll P(\sim M)$. On the other hand, the likelihood probability ratio should favor the occurrence of testimony given that a miracle happened because P(T | M) > P(T | ~M). Although the prior probability ratio will most likely outweigh the likelihood probability ratio by a large magnitude (always rendering P(M) < P(~M)), the testimonial evidence will increase exponentially with the number of independent testimonies. Testimony, especially when used in conjunction with other empirical evidence, can plausibly provide grounds for concluding that a miracle has occurred.

To illustrate the significance that independent testimony can play in confirming a miracle, consider the following scenario. Suppose that some miraculous event (M) in light of some (extra-testimonial) empirical evidence (E) is likely to occur on the following ratio: P(M | E) : P(~M | E) = 100,000,000 : 1. Furthermore, suppose that there are ten independent eyewitnesses (W) where each one's testimony is more likely to occur at a ten to one ratio in favor of the miraculous event: P(W | M & E) : P(W | ~M & E) = 10 : 1. When applied to the Schlesinger-McGrew emendation of Bayes's theorem, the evidence provides the following results:

$$\frac{P(M \mid W^n \,\&\, E)}{P(\sim M \mid W^n \,\&\, E)} = \left(\frac{P(M \mid E)}{P(\sim M \mid E)}\right) \times \left[\frac{P(W \mid M \,\&\, E)}{P(W \mid \sim M \,\&\, E)}\right]^n = \left(\frac{1}{100{,}000{,}000}\right) \times \left[\frac{10}{1}\right]^{10} = \frac{100}{1}$$

The Bayesian framing of the evidence for miracles provides a clear and precise method for measuring the epistemic worth of this evidence. Of course, establishing the probability assignments for a Bayesian approach to confirm a miracle will vary from miracle to miracle and will depend largely on how one assesses the empirical data. For these reasons, the Bayesian approach as such is neutral with respect to the outcome of a debate on miracles since it allows the evidence to determine the outcome.

III.

There are a number of objections that could be brought against my account of how to confirm a miracle, and I intend to address the most important ones in this section. In particular, I wish to address criticisms that would make confirming a miracle using Bayesian methods impossible.

First, one might contend that the intrinsic probability that a miracle will occur is equal to zero, which would render any evidence for a miracle absolutely ineffectual. For example, no matter how much evidence is amassed for anyone to believe the indexical claim, "I do not exist," no person should be moved to doubt that he exists since (as Descartes famously argued) someone would have to exist in order to think "I do not exist." Because the very belief in question has an intrinsic probability of zero, no amount of evidence can change its evidentially bankrupt status. In this way, some might believe that miracles are no better off.

But why would anyone think that the intrinsic probability that a miracle will occur is zero? Perhaps, he might think that the concept of a miracle is hopelessly incoherent or that the intrinsic probability that God exists is zero. These are strong claims, and I presume that anyone who holds to these objections has powerful arguments to justify them. To my knowledge no such proofs exist, and it is widely accepted in the literature that these demonstrations have not been produced (and are not likely to be produced).[9]

Jordan Howard Sobel has raised a more serious challenge to the Bayesian approach to confirming a miracle in his impressive book, *Logic and Theism*. Sobel argues (on behalf of Hume) that the prior probability that a miracle will occur should be some infinitesimal number.

> For Hume, M asserts what would in a person's view would be a miracle, only if M is logically possible and there is what Hume would term a 'proof' for this person against M that has moved him to view it as *naturally impossible*. For a quantitative gloss on Hume's idea of a miracle, I say that there *is* a 'proof' for a person against M *if*, for this person ***P(M)< i***, for some positive ***infinitesimal*** *i*, and that such an equality holds for a person *if and only if* there is, for this person, such a 'proof' against M, *and no such*

[9] For example, J. L. Mackie, *The Miracle of Theism* (Oxford: Oxford University Press, 1982), 23: "There is, then, a coherent concept of miracles. Their possibility is not ruled out *a priori*, by definition."

> *'proof' for M*. A 'firm and unalterable contrary experience' provides a person with such a proof against M if and only if *it has in fact given rise (causal, not justificational, notion) in this person to a credence M that is represented by such an* EXTRAORDINARILY *small number.*[10]

Central to understanding Sobel's proposal is his use of infinitesimal numbers. An infinitesimal number is an infinitely small number such that the absolute value of it will be smaller than any positive real number. A number x is infinitesimal if and only if for every integer n, $| nx | < 1$. Furthermore, $| 1/x |$ is larger than any real number. Infinitesimal numbers are not members of the set of real numbers; they are hyperreal numbers. Sobel claims that "Positive infinitesimals are 'just the numbers' for contemplated transgressions of 'laws of nature' that, without being absolutely improbable, are 'less than probable' as these laws are themselves 'more than probable': Transgressions of laws can be *less than n-probable for every standard real n greater than 0, though not 0-probable*; the laws themselves can be *more than n-probable for every standard positive real less than 1, without being 1-probable*."[11]

Sobel maintains that when one's evidence for a miracle (M) is some positively probable evidence (E), and (E) is not taken to be a natural impossibility, then $P(M \mid E) \approx P(M)$. Since the prior probability that a miracle will occur is some infinitesimally small number, the degree of confirmation that E will confer on M is so minute that the $P(M \mid E)$ will be about the same as the $P(M)$. For this reason, the only kind of evidence that can confirm a miracle would be evidence that is as miraculous as the miracle in question. Thus, if a miracle's occurring is infinitesimally improbable (that is, infinitesimally close to zero), then the evidence that would be necessary to confirm the miracle would need to be infinitesimally probable (that is, infinitesimally close to one). In cases of testimony and multiple independent testimonies, Sobel explains that the

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[10] Jordan Howard Sobel, *Logic and Theism* (Cambridge: Cambridge University Press, 2004), 338. (All strange typesetting reflects the original print.)

[11] Ibid.

infinitesimal improbability that a miracle will occur is "overcome by testimony, *only if* the falsehood of the testimony is 'infinitesimally improbable,' and similarly for *bodies of independent testimony*…."[12]

In light of applying infinitesimal probabilities to miracles, Sobel has shown a way to defend Hume's maxim, "That no testimony is sufficient to establish a miracle, unless the testimony be of such a kind, that its falsehood would be more miraculous, than the fact, which it endeavours to establish."[13] Sobel's analysis would also vindicate Hume's standard of testimonial evidence for a miracle: "If the falsehood of his testimony would be more miraculous than the event which he relates, then, and not till then, can he pretend to command my belief or opinion."[14]

It is important to realize the significance of Sobel's proposal. If accurate, then the prospect of confirming a miracle through typical (finite) evidence (such as testimony) is a hopeless undertaking. After all, the finite accumulation of infinitesimally small numbers is not ever going to sum to a non-infinitesimal number. By arguing that the probability of a miracle can be valued as a positive non-zero infinitesimal, Sobel attempts to render testimony, even multiple independent testimonies, insufficient to confirm a miracle in principle.

Sobel's framework for assessing the probabilities of miracles and their evidence, if successful, would undermine the prospects of using Bayesian methods to confirm a miracle. But how successful is Sobel's proposal? I believe that Sobel's provocative approach fails to capture accurately the probabilities involved.

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[12] Ibid., 339.

[13] David Hume, *An Enquiry Concerning Human Understanding*, ed. Tom L. Beauchamp (Oxford: Oxford University Press, 2000; orig.,1748), 87.

[14] Ibid., 87-88.

First, there is the problem of providing an intelligible semantic interpretation to Sobel's syntax "infinitesimally small/large probabilities." In other words, it is not clear *what it means* to ascribe an infinitesimal probability to some event. Sobel assigns the intrinsic probability that a miracle will occur an infinitesimally small value and claims that convincing evidence for a miraculous event would need to be infinitesimally large. What do these probability assignments mean? For comparison, consider the "atom lottery" where an atom will be drawn at random from the entire universe. While this yields an extraordinarily large improbability for any specific atom winning the lottery (approximately $1/10^{80}$), the result is still a *finite probability* that can be surmounted by probabilistically finite evidence. To appreciate Sobel's probability assignments, notice that the intrinsic probability that a miracle will occur will be lower than the improbability of any particular atom's being drawn in the atom lottery. Indeed, the infinitesimal probability that Sobel ascribes to a miracle is not even on the same magnitude of the probability involved in the atom lottery.

If infinitesimal probabilities cannot be compared with probabilities in the atom lottery, it becomes worrisome that there is no way to cash out Sobel's syntactic ascription. Perhaps Sobel might suggest that infinitesimal probabilities would be similar to the probability involved in a lottery with infinite possible members. But if this is what he means, then he is up against the problem of normalization.[15] Normalizability is a feature of probabilities such that summing the complete set of disjoint alternatives will equal 1. Normalizability is what makes it possible to "carve up" the probability "space" for any event among its possible constituents rationally. When attempting to sum an infinite number of disjoint alternatives, the sum—if there is a sum—

[15] The normalizability problem is discussed in Timothy McGrew, Lydia McGrew, and Eric Vestrup, "Probabilities and the Fine-Tuning Argument: A Sceptical View," *Mind* 110 (2001): 1030-32.

will be infinite. The untoward result is that one cannot assign meaningful probabilities to non-normalizable events, like a lottery with an infinite number of possible outcomes. (Is it more probable one will win in the infinite lottery with one ticket or ten thousand tickets? Without being able to normalize, the probabilities are the same.)

So, if Sobel's probability syntax cannot be understood as a very small yet finite probability (such as the atom lottery), and it cannot be rendered meaningful under the description of an infinitely membered set of outcomes (such as an infinite lottery), then I confess that it seems there is no way to give a meaningful interpretation to an infinitesimal probability.[16] Perhaps there is some halfway house between the probabilities involved in the atom lottery and the infinite lottery, but the onus rests on Sobel to show a clearer mathematical and probability-theoretic explanation of how infinitesimal probabilities are to be understood.

Aside from the problem of giving a meaningful interpretation to Sobel's syntax, there is a second problem: it is not clear that one could ever justify ascribing infinitesimal probabilities to any event.[17] On what grounds could one justify an infinitesimal probability assignment? Sobel seems to think the following does the trick:

> According to Hume, a person views a logical possibility as a miracle only if he views it as a violation of a law of nature, and so views it as a *natural impossibility*. We have such views. Hume considers them to be philosophically suspect and incapable of fully face-saving analyses in terms of ideas derived from experience, but he thinks that they are natural and indeed irrepressible 'views' for *everyone*, including skeptics such as himself when they are not 'engaged in their scepticism' (in which they are usually not engaged). There is, he might say, a sense in which 'we cannot do without them': He might say that though we do not for any theoretical or practical purposes *need* them, we cannot, psychologically, *avoid* them in out ordinary thinking. The proposal I am making for reading "Of Miracles" is that such 'views' (scare-quotes in deference to Hume's

[16] Several problems with infinitesimal probabilities are discussed in Timothy McGrew and Lydia McGrew, "On the Rational Reconstruction of the Fine-Tuning Argument," *Philosophia Christi* 7, no. 2 (2005): 441-42.

[17] I am grateful for Timothy and Lydia McGrew introducing several ways to make this criticism.

> philosophical suspicions) be accorded distinctive treatment in a probabilistic representation of a credence-state, with all and only ‘views’ of natural impossibilities having *infinitesimal* probabilities in the representation. Similarly, all and only things ‘viewed’ as *natural necessities* will have probabilities that are, though less than, ‘infinitely close’ to 1.[18]

At the beginning of this passage, Sobel relies heavily on the notion of natural impossibility.[19] Perhaps, he means to suggest that everyone is compelled to recognize the causal closure of the physical universe. But this is not going to be sufficient to justify assigning an infinitesimal to the probability that a miracle occurs. First, if causal closure holds for the physical universe, then the probability that a miracle will occur is zero. Of course, to know that the universe is causally closed, one would have to know that God does not exist or that even God cannot causally interact with the physical world. To rest one’s case on these claims is tantamount to the first objection I already rebutted.

Maybe Sobel means that one has a probabilistically strong case for the causal closure of the physical world. I will call this inductive skepticism against miracles. Yet, even if such a strong case could be established, the result would surely not be so strong as to assign the probability that a miracle will occur an infinitesimal value. At best, such a proof would designate the probability that a miracle will occur to be some finite, although very low, probability. Furthermore, since the theist maintains that the miracle occurs by supernatural means (rather than by natural means), the fact that miracles are *naturally impossible* doesn’t seem relevant at all. (Just as saying that rolling a three on a six-sided die is *evenly impossible*—impossible given that an even number is rolled—would have no significant bearing on rolling a three, unless one already thought all dice-rolls were restricted to the even numbers.) Only if one assumes that miracles must occur by natural means or that all events are natural events can one

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[18] Sobel, *Logic and Theism*, 338.
[19] *Cf.* ibid., 310-11.

assign an infinitesimal probability to an event on the grounds that it is a 'natural impossibility.' To do this would beg crucial claims against one defending miracles.

The aforementioned point can be reinforced by considering how Sobel's view handles Hume's "Indian Prince." In Hume's example, the

> Indian Prince who refused to believe the first relations concerning the effects of frost, reasoned justly; and it naturally required very strong testimony to engage his assent to facts, that arose from a state of nature, with which he was unacquainted, and which bore so little analogy to those events, of which he had had constant and uniform experience. Though they were not contrary to his experience, they were not conformable to it.[20]

The Indian Prince presumes that water cannot turn to frost due to his uniform experience of the natural behavior of water. For the Indian Prince to believe that water can turn into frost (an event that he should count as a natural impossibility for him), Sobel would require the Indian Prince to acquire evidence that is infinitesimally close to a probability of 1. Yet, this seems overly stringent. Most people think that after one or two trustworthy testimonies the Prince would have reasonable grounds for believing that water can undergo this kind of transformation. Sobel's attempt to use inductive skepticism to justify assigning an infinitesimally low probability to a miraculous event has no principled way of demarcating the Indian Prince's apparent natural impossibility for water to change into frost from the belief that a miracle is naturally impossible. John Earman emphasizes how the Indian Prince example is embarrassing for this kind of inductive skeptical argument against miracles:

> If Hume's suggestion is that the prince's inductive leap is fallacious because it moves from experiences in one temperature range to a conclusion about an unexperienced temperature range, then it must be explained why the suggestion doesn't undermine all inductive reasoning. For *all* induction involves a leap from an observed range to an unobserved range, whether the range involves space, time, or a parameter such as temperature. … That embarrassment will always resurface in more complicated examples as long as the rule of induction yields a probability-one conclusion for a universal generalization from finite data. On the other hand, if Hume's straight rule of induction is

[20] Hume, *Enquiry Concerning Human Understanding*, 86.

> modified so as to escape this embarrassment by assigning a probability less than 1, then Hume no longer has a "proof" against miracles, nor a principled distinction between miracles and marvels, and the way is opened for testimonies to establish the credibility of resurrections and the like.[21]

Another way to read Sobel's justification for assigning an infinitesimal probability to a miraculous event is grounded in psychological compulsion. He notes an agreement with Hume that such 'views' are "natural and indeed irrepressible"; "we cannot, psychologically, *avoid* them in our ordinary thinking."[22] Sobel also claims "a person's *first confidence* that events have natural causes—this presumption in its first appearance in a person's experience—is *natural*: It is not a conviction that ***comes from*** experience, but a conviction we are designed to ***bring to*** experience."[23]

There is much that can be said against Sobel's attempt to provide a psychological justification. First, it is well-known that psychological intuitions about probabilities are not always well-founded. Gamblers often think that it is "their turn to win next time" even though such hopes are merely psychological, not rational. It may be that *some* people feel psychologically compelled to assign miracles an infinitesimally small probability, and they could simply be mistaken. People have hunches, gut-feelings, unfounded intuitions, and other strong feelings that erroneously lead them to have false beliefs concerning probability assignments. Second, there is no inconsistency in someone's having a "first confidence" that events have natural causes and also believing the probability that a miracle occurs is a very small (yet finite) number. Similarly, the Indian Prince may have a first confidence against water's changing to frost, but this only renders the probability that water can change to frost a small (yet finite)

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[21] Earman, *Hume's Abject Failure*, 36-37.
[22] Sobel, *Logic and Theism*, 338.
[23] Ibid., 311. His emphases.

number. Indeed, it is hard to imagine that psychological causes by themselves ever justify assigning infinitesimal probabilities to any event.

Since Sobel's approach fails to have a meaningful semantic interpretation, and it cannot justify ascribing an infinitesimally low probability to a miraculous event, his position cannot be maintained as a serious threat to the Bayesian approach to confirming a miracle. If miracles cannot be ruled out by having a zero probability or cannot be made evidentially confirmable by an infinitesimally low probability, then it remains possible in principle to accumulate enough finite evidence to confirm a miracle.

IV.

In this paper, I have given a general framework for confirming a miracle using Bayesian methods. I have defended an approach by which evidence could possibly confirm a miracle. By situating the probabilistic evidence in a Bayesian scheme, I believe that I have provided a framework in which to situate debates over the confirmation of specific miracles. Finally, I have responded to some criticisms that could be raised against this approach to confirming a miracle.

This paper has not argued that any miracle has ever occurred, or whether there is sufficient evidence to confirm that a miracle has ever occurred. The aim of this paper, rather, concerns a second-order discussion of the methods of procedure in assessing the epistemic merits of a miracle's evidence. If this approach to confirming a miracle is accurate, then it is a matter of case-by-case study and application of Bayesian methods to evaluate the veracity of any alleged miracle. The viability of confirming a miracle cannot be ruled out prior to investigation.

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