

Hume on Miracles: The Issue of Question—Begging

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ABSTRACT

Hume's chapter "Of Miracles" has been widely discussed, and one issue is that Hume seems to simply beg the question. Hume has a strong but implicit naturalist bias when he argues against the existence of reliable testimony for miracles. In this article, I explain that Hume begs the question, despite what he says about the possibility of miracles occurring. The main point is that he never describes a violation of the laws of nature that could not be explained by scientific theories.

INTRODUCTION

In Chapter 10 of *An Enquiry Concerning Human Understanding*,¹ Hume uses two definitions of a miracle:²

A miracle is a violation of the laws of nature. (*EHU*, 114 [10.12])

A miracle may be accurately defined, a transgression of a law of nature by

1. D. Hume, *An Enquiry Concerning Human Understanding*, edited by Tom L. Beauchamp, (Oxford: Oxford University Press, 2000, cited hereafter as *EHU*).

2. The evaluation of Hume's "Of Miracles" varies widely, and sometimes the tone of the discussion is surprising: see David Johnson, *Hume, Holism, and Miracles* (Ithaca: Cornell University Press, 1999); John Earman, *Hume's Abject Failure: The Argument against Miracles* (Oxford: Oxford University Press, 2000); Richard Swinburne, *The Existence of God* (Oxford: Oxford University Press, 2004); or Gertrude E. M. Anscombe, *Faith in a Hard Ground: Essays on Religion, Philosophy, and Ethics* (Exeter; Charlottesville, VA: Imprint Academic, 2008); versus John Leslie Mackie, *The Miracle of Theism: Arguments for and against the Existence of God* (Oxford: Clarendon Press, 1982); Jordan Howard Sobel, *Logic and Theism: Arguments for and against Beliefs in God* (Cambridge: Cambridge University Press, 2003); Robert J. Fogelin, *A Defense of Hume on Miracles* (Princeton: Princeton University Press, 2005). I do not intend to review these books in detail but I will try to present different rebuttals against Hume's arguments and my own reading of the chapter, which is a rejoinder to Hume's strategy against miracles.

a particular volition of the Deity, or by the interposition of some invisible agent. (*EHU*, 115 [10.12n22])

The first definition is without explicit religious meaning, and it does not seem relevant or complete if compared with a piece of religious testimony reporting a miracle. In any religious narrative, the religious meaning of the miracle has to be clear, but what could a miracle without an obvious religious meaning amount to—as described in Hume’s first definition?

You know what a miracle is . . . another world’s intrusion into this one. Most of the time we coexist peacefully, but when we do touch there’s cataclysm. Like the church we hate, anarchists also believe in another world. Where revolutions break out spontaneous and leaderless, and the soul’s talent for consensus allows the masses to work together without effort, automatic as the body itself. And yet Sena, if any of it should ever really happen that perfectly, I would also have to cry miracle. An anarchist miracle.³

It is important to remark that Pynchon, that some want to reduce to a postmodern writer, does not intend to propose a naturalistic explanation of anarchist miracles. In this paper, I will defend the idea that Hume, unlike Pynchon, does not really take into account the possibility of a miracle without any naturalist explanation, despite the requirements he introduces himself with his first definition of miracles, and despite what he and some of his followers claim he has done. But, without this possibility, any account of miracles seems question-begging. Nevertheless, this kind of question-begging issue is not necessarily irrational, as we shall see.

Hume claims that no actual testimony could provide evidence for the occurrence of a miracle. Even if someone can imagine a believable report of a miracle, the experience of testimony in religious matters clearly justifies us in regarding the witnesses who report miracles with suspicion. One classical and contemporary rebuttal against Hume’s account of miracles consists in the accusation that he simply begs the question. Hume’s text is ambiguous on this point. Hume describes imaginary cases of believable reports of miracles, and then seems to accept the possibility that a miracle testimony could override our general suspicions concerning the rationality of beliefs of this kind. Therefore, Hume seems to have arguments against question-begging objections. Nevertheless, a more detailed examination of the chapter leads to a far more complicated judgment. My

3. Thomas Pynchon, *The Crying of Lot 49* (New York: Harper & Row, 1990), 97.

main thesis is that Hume really does beg the question at various stages in the process of addressing his critics, but I will also seek to challenge the charge of irrationality directed towards this procedure, not only in the case of the anti-miracle approach that Hume himself favors, but also in the case of the classical theistic approach that I myself prefer.

1. HUME'S ARGUMENTS

There are two parts to Hume's chapter, and an important interpretative question is whether the two can only be read with the second following on after a complete reading of the first, or also reading the first in the light of the second. In Part I, Hume declares that a uniform experience amounts to a direct and full proof against miracles, but how can he also claim that an opposite proof against the ruling out of miracles can exist and be superior, even if this possibility is never actual, as is argued in Part II? If the first part is unsuccessful by itself, can the second add grounds to it?

Part I contains what Fogelin calls the indirect or reverse argument against miracle reports: the occurrence of the reported fact regarding laws of nature is very, very improbable and then any testimony is at first unbelievable. This argument is indirect because it is not directed against the testimony in itself, or against a particular witness, but against the existence of miracles in general, and thus against any form of testimony concerning miracles. It is in Part II that we may find a direct argument against miracle testimonies.

The steps of the argument can be broadly reconstructed using quotes from the text.

1. Experience is our only guide in reasoning concerning matters of fact.
2. It must be acknowledged that this guide is not altogether infallible. A wise man, therefore, makes his beliefs proportionate to the evidence.
3. There is no species of reasoning more common, more useful, or even more necessary to human life, than that which is derived from the testimony of men, and the reports of eye-witnesses and spectators.
4. It is a general maxim that no objects have any discoverable connection with one another, and that all the inferences which we can draw from one to another are founded merely on our experience of their constant and regular conjunction; it is evident that we ought not to make an exception to this maxim in favor of human testimony, whose connection with any event seems, in itself, as little necessary as any other.

5. As evidence derived from witnesses and human testimony is founded on past experience, so it varies with that experience, and is regarded either as a proof or a probability, in accordance with whether the conjunction between any particular kind of report (evaluating the witness) and any kind of object has been found to be constant or variable (evaluating the possibility of the reported event with regard to its nature).
6. The evidence resulting from the testimony admits of a diminution, greater or less, in proportion to the fact's being more or less unusual.
7. There must, therefore, be a uniform experience that speaks against every miraculous event, otherwise the event would not merit that appellation.
8. And as a uniform experience amounts to a proof, there is here a direct and full proof, from the nature of the fact, refuting the existence of any miracle; nor can such a proof be destroyed, or the miracle rendered credible, but by an opposite proof, which is superior.

Here Hume prepares his answer: a comparison of proofs leads to the total rejection of all reports concerning miracles.

At the beginning of Part II, Hume says that in Part I he was too sympathetic towards the proponents of miracles.

In the foregoing reasoning we have supposed, that the testimony, upon which a miracle is founded, may possibly amount to an entire proof, and that the falsehood of that testimony would be a real prodigy: but it is easy to show, that *we have been a great deal too liberal in our concession*, and that there never was a miraculous event established on so full an evidence. (EHU, 116 [10.14])⁴

Most of the critics of Hume's chapter are radically opposed to Hume's self-interpretation, as I emphasized earlier. For Earman and Johnson, Part I contains an unsympathetic treatment of miracles, without any concessions at all. We will have to clarify this point: does Hume really assume the possibility of a believable testimony concerning miracles? Following, for the moment, Hume's self-interpretation, and assuming the possibility of a miracle, Part II's goal is to state that any witness is actually not trustworthy and then, also in Part II, he argues directly for the non-existence of believable miracle reports—even though in Part I he had accepted their

4. My emphasis.

possibility. Here Hume proceeds on the basis of the experience of testimonies. He exposes general principles about human psychology and history and he analyses examples of miracle reports. All this evidences and these principles constitute a strong empirical basis for rejecting all forms of testimony concerning miracles. The conclusion is that examination of various cases of miracle reports proves that no miracle testimony is rationally believable, because of the general credulity and fancifulness of human beings in these matters.

This simple presentation of the chapter has now to be challenged.

2. DEFINITIONS OF A MIRACLE

In Part I, paragraph 12, there are the two definitions of “miracle” that have already been mentioned here. The first is in the main text and the second in a footnote. Examining these two definitions leads to the problem of the question-begging character of Hume’s approach. The first definition is without any explicit religious meaning:

A miracle is a violation of the laws of nature. (*EHU*, 114 [10.12])

Here Hume does not insist on God’s revelation, embrace faith or assert the presence of immaterial beings. It is in the second definition that we find a religious component.

A miracle may be accurately defined, a transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent. (*EHU*, 115 [10.12n22])

It should be remarked that this so-called accurate definition with a religious meaning only appears in a footnote, and not in the main text, where the argument is to be found. An analysis of this second definition can show the legitimacy of Hume’s choice in opting to make use of the first one in his argument.

An alleged miracle is an alleged event which appears to contrast with the normal course of nature, but this contrast may be invested with a greater or a lesser degree of religious significance. The witness may be a witness to an exceptional event, or divine intervention. The difference between the two definitions seems to be a difference between a naturalist approach to miracles and a theistic one. Nevertheless, instead of an opposition between two interpretations, the two definitions can be dif-

ferentiated in terms of the idea that there is a general and more useful definition, the first, and then a more specific one, which only appears in a footnote. I am not sure that this is what Hume means by the difference between accurate and inaccurate definitions, but this contrast would seem to be more in tune with the general thrust of the argument.

In opposition to this kind of understanding of ‘accurate’, Sobel⁵ rejects the first definition as an elliptical one. Of course, it may seem more accurate, given the use of the term “accurate” itself, but perhaps is not really so, given Hume’s actual way of proceeding. One can distinguish two meanings of “accurate”: 1) a definition is accurate because it encapsulates the common meaning of the term “miracle” and 2) a definition is accurate because it is useful for having a philosophical discussion about the rationality of belief in miracles. I think Earman⁶ is right when he rejects the second definition as too subjective:

When witnesses report having been present at a miracle—say, the raising of a man from the dead—they are typically testifying to the occurrence of a naturalistically characterized event and not to supernatural intervention as a cause of the event.

The evidential problem of miracles is a problem concerning events which are in opposition to the laws of nature, and in the first instance this very problem is not a problem concerning events as signs or wonders manifesting God’s power. What Earman means is not that a miracle has no religious meaning, but that, firstly, a miracle is and has to be construed as an event which can or cannot be interpreted in religious terms. Therefore there are two steps in a discussion of belief in miracles: 1) the evaluation of a report of an event in contradiction with laws of nature, and 2) the interpretation of the event as a divine sign or an effect of the volition of some invisible agent. Part I, and most of Part II, both deal with the first step, because, following our charitable interpretation, Hume accepts the possibility of a violation but contests the religious use of an alleged violation of a law of nature.

Nevertheless, an event which appears to be in violation of known laws of nature is not necessarily a miracle. Violating laws of nature can be either a characteristic of a counter-example of some laws of nature that need to be corrected by scientists or a characteristic of divine action. If this

5. Sobel, *Logic and Theism*, 302.

6. Earman, *Hume’s Abject Failure*, 8.

alternative is the only relevant one, in opposition to what I have claimed, then Hume's second definition is the only accurate definition of a miracle.

If "violation" is correctly redefined to avoid the possibility of any scientific explanation, then we have a useful characterization of the first step of philosophical examination of any reported miracle, and Swinburne has developed an illuminating analysis of "violation" to explain why the first definition is sufficient:

Now if for E and for all other relevant data we can construct a formula L' from which the data can be derived and which either makes successful predictions in other circumstances where L makes bad predictions, or is a fairly simple formula, so that from the fact that it can predict E, and L cannot, we have reason to believe that its predictions, if tested, would be better than those of L in other circumstances, then we have good reason to believe that L' is the true law in the field. The formula will indicate under what circumstances divergences from L similar to E will occur. The evidence thus indicates that they will occur under these circumstances and hence that E is a repeatable counter-instance to the original formula L.

Suppose, however, that for E and all the other data of the field we can construct no new formula L_1 which yields more successful predictions than L in other examined circumstances, nor one which is fairly simple relative to the data; but for all the other data except E the simple formula L does yield good predictions. And suppose that as the data continue to accumulate, L remains a completely successful predictor and there remains no reason to suppose that a simple formula L' from which all the other data and E can be derived can be constructed. The evidence then indicates that the divergence from L will not be repeated and hence that E is a non repeatable counter-instance to a law of nature L.⁷

Hence a violation of a law is a non-repeatable counter-instance to that law, and we must have reasons from our past experience to believe that no law can be found. But why does this counterexample have to be unique and non-repeatable? Swinburne emphasizes this point in order to avoid the possibility of a new law explaining the different counterexamples, but it cannot be a necessary condition for being a miracle. Suppose, say, several people have been observed surviving without eating for months. A

7. This quote comes from the online article of Richard Swinburne, "For the Possibility of Miracles," <http://www.orthodoxytoday.org/articles2/SwinburneMiracles.php>. See also Swinburne, *The Existence of God*, ch. 12.

neutral description of these *prima facie* miracles does not need to mention their uniqueness, but only their violation of a known law of nature. These cases do not receive scientific explanations, either because they are miracles according to the second definition or because further medical research is needed and none of the current scientists know how to pursue these additional forms of research. Therefore, it can be assumed that a miracle is, by definition, a violation of a law of nature that cannot lead to new scientific explanations.

3. AN *A PRIORI* QUESTION-BEGGING PROBLEM?

The main objection to Hume's account of miracles, which can be found in Johnson, Earman or Anscombe, is that Hume begs the question: by giving a definition of a miracle which includes a reference to laws of nature, Hume presupposes the absolute impossibility of any miracle ever occurring. If these treatments of the question-begging problem were correct, then it would be the case that Hume had in fact produced an *a priori* argument against the possibility of any reliable testimony for, and against any rational belief in, miracles. I agree with this complaint against Hume, even though, as we shall see, the proposed arguments need to be improved.

A law of nature can be a universal law expressing necessity or determinism. If Hume defends this claim in Chapter 10, it is plain to see that no miracle can occur, but it is also easy to recall that, for Hume, there is no real connection between entities, and that being a cause is not an ontological property of some substance which behaves mechanistically. Anscombe⁸ criticizes what she alleges is the mechanistic determinism developed by Hume in his account of miracles, and easily shows that Hume is inconsistent on this point. According to Anscombe, three forms of question-begging problem can be encountered in Chapter 10.⁹

A. Arbitrary rejection of a particular miracle

"It is a miracle, that a dead man should come to life; because that has never been observed in any age or country . . ." (*EHU*, 115 [10.12]) is the worst example of an arbitrary claim, and Anscombe is right to have pointed this out.

B. Apparent endorsement of ontological determinism

This passage could be misunderstood because of the relation between

8. Anscombe, *Faith in a Hard Ground*, 44–45.

9. *Ibid.*

uniform experience and full proof, but even if it was a deterministic claim, which is not certain,¹⁰ as Mackie¹¹ remarks, it is not determinism which is in question here, as if laws are deterministic, then a miracle report could simply count as evidence for the non-closedness of the system. Endorsing determinism does not give rise to an *a priori* rejection of miracles, and thence to the question-begging problem. Hume's main purpose is to oppose our general experience to some sort of exceptional experience. The real problem, which is more consistent with Hume's general philosophy, is the amount of evidence in favor of an exceptionless regularity which seems to preclude any rational report of miracle. Despite ambiguities in Hume's text, it is fair to say that Hume's account is in general epistemic: given our inductive knowledge of the uniform course of nature expressed by the laws of nature, the question is what can ground the rationality of a belief in a miracle that violates one or more laws?

- C. A hard, empirically based conception of nature's uniform course
The fundamental question-begging problem is not an *a priori* and arbitrary rejection of any possible miracle, nor an *a priori* argument against miracles based on determinism. It is an empirically based rejection of the possibility of miracles. The question, then, is as follows: Is there any textual source to ground this accusation of question-begging? Yes, there is.

And what have we to oppose to such a cloud of witnesses, but the absolute impossibility or miraculous nature of the events, which they relate? And this surely, in the eyes of all reasonable people, will alone be regarded as a sufficient refutation. (*EHU*, 125 [10.27])

I believe that "the absolute impossibility or miraculous nature" expresses the strength of Hume's question-begging problem; even if he does not believe it *a priori*, he assumes on empirical grounds that exceptionless laws cannot be violated by any miracle, and that all laws are exceptionless.

The problem of this third question-begging problem is this: Why do we have to believe that nature is an exceptionless regularity? Hume's answer is empirical grounded: our experience is an experience of nature's

10. I will examine what a direct and full proof is on page 58.

11. Mackie, *The Miracle of Theism*, 21.

exceptionless regularity. But our experience could also be an experience of a general regularity with a few violations of laws—much as those who report miracles claim it to be. Why is this empirically known regularity absolutely exceptionless, and not simply a general regularity?

Earman¹² supposes that Hume uses Reichenbach's straight rule of induction.

If n A cases and m of the n A cases are B, the probability that the next A is B is m/n .

Of course, if $n = m$ then the probability equals 1. We have a proof of all A are B based on experience. I am inclined to agree with Fogelin¹³ when he says that Hume never sought to defend the straight rule in his work on probabilities,¹⁴ but some expressions used in "Of Miracles," like the one quoted above, do seem to depend on the straight rule. To clear up this accusation of begging the question, we have to examine Hume's use of the term "proof" when summarizing his argument for the uniformity of experience. The expression seems confused, and has been taken as an expression of *a priori* rejection of the possibility of miracles. Hume says:

There must, therefore, be a uniform experience against every miraculous event, otherwise the event would not merit that appellation. And as a uniform experience amounts to a proof, there is here a direct and full proof, from the nature of the fact, against the existence of any miracle; nor can such a proof be destroyed, or the miracle rendered credible, but by an opposite proof, which is superior. (*EHU*, 115 [10.12])

Hume claims that there is a full proof against miracles and that a proof against the full proof is possible. If a proof against a claim is possible, it seems that the claim is just a presumption and not a full proof. The expression "full proof" seems to contradict the idea of a presumption contained in the possibility of an opposed proof. So what is a proof for Hume? How can entire proofs enter into conflict with each other? Logically speaking, this is impossible, but for Hume a proof is never merely a demonstration. Fogelin¹⁵ quotes an important note in Section 6 of the *Enquiry*.

12. Earman, *Hume's Abject Failure*, 22–23.

13. Fogelin, *A Defense of Hume on Miracles*, 43–52.

14. See David Hume, *A Treatise of Human Nature*, edited by David Fate Norton and Mary J. Norton (Oxford: Oxford University Press, 2011), 1.3.

15. Fogelin, *A Defense of Hume on Miracles*, 16.

Mr. Locke divides all arguments into demonstrative and probable. In this view, we must say, that it is only probable that all men must die, or that the sun will rise to-morrow. But to conform our language more to common use, we ought to divide arguments into demonstrations, proofs, and probabilities. By proofs meaning such arguments from experience as leave no room for doubt or opposition. (*EHU*, 56n1 [6.title])

In common use, “proof” is not restricted to demonstration but can be an empirical argument whose conclusion is without rational doubts even if it is logically possible that the conclusion is false.¹⁶ There is no *a priori* demonstration against miracles, but an empirical proof which yields a strong presumption against miracles based on a presumptive law of nature. But where do we find this empirical proof? In Part I? Focusing on Hume’s definition of miracle is misleading, because the second part of the chapter cannot be separated from the first.

4. HUME’S EXAMPLES OF POSSIBLE MIRACLES

For Johnson or Earman, the arguments in Part II are so weak that they opt to focus on Part I without using Part II to shed any further light upon it. Fogelin rightly challenges this interpretation. The two parts of “Of Miracles” cannot be read separately because each part concerns the evaluation of testimony and a testimony has two components: the witness who claims to have seen a miracle and the event which the witness reports. Therefore, Part 1 does not contain an argument by itself, but just the sub-conclusion that

we are entitled to apply very high (ultrahigh) standards to the testimony intended to establish the occurrence of a miracle.¹⁷

The first part organizes and prepares a confrontation between proofs: proofs of laws against proofs of miracles. The second part, taking experience as a guide, shows 1) as also in Part I, that the epistemology of testimony¹⁸ “provide[s] grounds for a high degree of initial caution and

16. Earman, *Hume’s Abject Failure*, 23 quotes a letter of Hume that seems to imply another interpretation but Fogelin proposes a good reading of „implies no doubt” that undermines Earman’s point.

17. Fogelin, *A Defense of Hume on Miracles*, 30.

18. Hume does not develop any sort of general skepticism concerning testimony. He

scepticism about every alleged miracle”¹⁹ and 2) that no reported miracle is able to fit the standard for reliable testimony. The first part states a conditional claim: if a reported miracle is more likely than the falsity of the testimony, it is rational to believe the testimony, but the condition is true only if the witness himself meets the high standards required in order to be in a position to contradict the general and strong proof that refutes miracles. Part II shows that this is never the case. Hence, Fogelin²⁰ supposes that the passage quoted on page 57 here, which seems to mingle absolute impossibility and miracle, is just an anticipation of the whole examination of miracle reports, so that it then expresses a well-grounded inductive conclusion instead of a piece of *a priori* reasoning.

This proposition is a charitable reconstruction of Chapter 10 that I wish to challenge. This *a posteriori* absolute rejection has two components: 1) an experience of nature’s uniformity which allows exceptions if the testimonies are strongly reliable and 2) an examination of some miracle reports which leads to a complete rejection. This procedure supposes that the possibility of miracles and the possibility of a reliable report have really indeed been taken into account here. Fogelin thinks that Hume really does accept the possibility of there being an instance of reliable testimony in favour of a miracle having occurred, but I do not.

In opposition to the question-begging objection, Fogelin²¹ quotes one of Hume’s imaginary cases of a possible miracle: the possibility of there being total darkness over the whole of the Earth for eight days.

I beg the limitations here made may be remarked, when I say, that a miracle can never be proved, so as to be the foundation of a system of religion. For I own, that otherwise, there may possibly be miracles, or violations of the usual course of nature, of such a kind as to admit of proof from human testimony; though, perhaps, it will be impossible to find any such in all the records of history. Thus, suppose, all authors, in all languages, agree, that, from the first of January, 1600, there was a total darkness over the whole earth for eight days: suppose that the tradition of this extraordinary event is still strong and lively among the people: that all travelers, who return from foreign countries, bring us accounts of the same tradition, without the least variation or contradiction: it is evident, that our present philosophers,

aims to strike a balance between the general reliability of testimony and the situation of miracle reports.

19. Mackie, *The Miracle of Theism*, 16.

20. Fogelin, *A Defense of Hume on Miracles*, 23–24.

21. *Ibid.*, 25.

instead of doubting the fact, ought to receive it as certain, and *ought to search for the causes whence it might be derived*. The decay, corruption, and dissolution of nature, is an event rendered probable by so many analogies, that any phenomenon, which seems to have a tendency towards that catastrophe, comes within the reach of human testimony, if that testimony be very extensive and uniform.²² (*EHU*, 127–8 [10.36])

This passage is clearly opposed to the charge of being an *a priori* argument because Hume examines a possible violation of a presumptive law. He does not use the expression “laws of nature” but “violations of the usual course of nature.” However, we can assume that the passage I emphasized refers to the search for a law of nature. If such an event were reported, a naturalistic approach, involving trying to find a new law or change the scope of an already known one to fit with the general course of nature, would be more relevant. Therefore, the possibility of such a period of total darkness is interpreted as a natural event and not as a possible divine effect. Neither is it a clear case of a possible miracle in the sense of a violation of the laws of nature, as Pynchon’s anarchist miracle is. Hume expresses here a bias in favor of naturalistic explanations of events,²³ even if he believes this bias to be empirically grounded. Therefore, Fogelin gives too much credit to this bad example, and it affects his defense of the coherence of Hume’s chapter and of the articulation of the two parts. This example, which is, for Fogelin, a clear case of a possible miracle, does not fit with the redefinition of a miracle as a violation given by Swinburne in order to render Hume’s definition coherent. We have seen that two steps have to be distinguished in the definition of a miracle: 1) a violation of a law of nature and 2) a sign of a divine intention. If we accept that there is no *a priori* argument against miracles, then there are two substeps within the first step: 1a) showing that M as it is reported is a violation of a law and 1b) before further experiences or evidences, remaining skeptical about any religious explanation, because of a strong presumption against miracles. After this first step, whose conclusion is skepticism, the second step would be to examine the witness. But Hume never unfolds such a procedure: he always replaces (1b) by a naturalistic explanation of the sort that (1a) has already challenged.

His treatment of both the Indian prince case and the difference between

22. My italics.

23. See for a similar complaint Nicholas Everitt, Review of *A Defense of Hume on Miracles*, by Robert J. Fogelin, *The Philosophical Quarterly* 55, no. 220 (2005): 516.

a marvel (i.e. something with a very small but non-zero probability)²⁴ and a miracle (with absolutely zero probability) shows this.

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*.

**Note.* No Indian, it is evident, could have experience that water did not freeze in cold climates. This is placing nature in a situation quite unknown to him; and it is impossible for him to tell a priori what will result from it. It is making a new experiment, the consequence of which is always uncertain. One may sometimes conjecture from analogy what will follow; but still this is but conjecture. And it must be confessed, that, in the present case of freezing, the event follows contrary to the rules of analogy, and is such as a rational Indian would not look for. The operations of cold upon water are not gradual, according to the degrees of cold; but whenever it comes to the freezing point, the water passes in a moment, from the utmost liquidity to perfect hardness. Such an event, therefore, may be denominated *extraordinary*, and requires a pretty strong testimony, to render it credible to people in a warm climate: But still it is not *miraculous*, nor contrary to uniform experience of the course of nature in cases where all the circumstances are the same. The inhabitants of Sumatra have always seen water fluid in their own climate, and the freezing of their rivers ought to be deemed a prodigy: But they never saw water in Muscovy during the winter; and therefore they cannot reasonably be positive what would there be the consequence. (*EHU*, 113–4 [10.10, with n21])

Hume differentiates the Indian prince case and the general attitude against miracles but without good reasons. If a presumptive law forbids any miracle, it forbids any marvel too, but Hume accepts the possibility of marvels. The conclusion of the Indian prince case is a general and *a priori* doubt about its miraculous nature when an extraordinary event is reported. Hume considers that the Indian prince should not disbelieve

24. “But in order to increase the probability against the testimony of witnesses, let us suppose, that the fact, which they affirm, instead of being only marvelous, is really miraculous” (*EHU*, 114 [10.11]). This passage constitutes the transition between the prince case and the final treatment of miracles in Part I.

strong testimony, but he should also not believe in a miracle. In the note, Hume claims that we must be agnostic about the miraculous nature of the event, because we do not understand the new circumstances of the strange event. There is always the possibility of doubting the reliability of either each individual instance of testimony or our entire knowledge of nature. But a third possibility which has to be taken into account is always rejected without explanation: that an event is opposed to any scientific explanation—that is (1a). As we have seen, it is an important part of the clarification of the violation of the laws of nature that Hume neglects. The Indian prince case describes a naturalistic attitude with a strong skeptical component, which is not surprising in the context of Hume's wider philosophy, but which undermines any serious reflection upon the possibility of there ever being reliable testimony for a miracle.

Hence Fogelin's defense is unconvincing, in that it supposes that Hume has taken into account the two possibilities—of there being a real violation of laws of nature and of there being an instance of reliable testimony for a miracle—when in fact he has not. Because of this difference between what Hume should have done and what he actually did do, readers of Chapter 10 are right to have identified a problem of question-begging there. This point explains why some interpretations tend to read the first part in such a way that it is not reliant upon the second, which in turn appears too weak to lend any real support to Part I's problematic claims. Hence we may conclude that Hume organized his reflections on this topic in a (misleading) way, that serves to avoid any acknowledgement of the possibility of reliable testimony for a miracle ever being given. A probabilistic analysis of the chapter will confirm this conclusion.

5. PROBABILISTIC FAILURES

"All those movies had happy endings."

"All?"

"That cuts down the probability."²⁵

An important part of contemporary discussions of Hume's text consists in a bayesian reading of Hume's arguments. Bayesian discussions are not anachronistic, even if Hume did not himself have any firm knowledge of

25. Pynchon, *The Crying of Lot 49*, 22.

probability calculus.²⁶ For Sobel,²⁷ probability calculus is a formalization of common sense, and he claims that it may thus be useful to present Hume's argument with the help of this formal tool. We need not make such a strong claim, however: we may just say that probability calculus is useful for interpreting Hume's chapter, and for highlight some difficulties with it.

The general problem is this: for Hume, is it possible that a piece of testimony concerning a miracle would increase the probability of the existence of some miracle, despite the low probability of miraculous occurrences as this relates to our general evidence for the absence of law violations? I will assume that M means a miracle occurred, $t(M)$ that a witness reports that she saw a miracle, E our evidence and k our background knowledge. If prior probability $P(M/k) = 0$ then, for any evidence, $P(M/E \& k) = 0$. This case offers a simple illustration of a question-begging case. But Hume, of course, is more subtle. So, we have to suppose that the prior probability of the occurrence of a miracle is not 0, which could be a conclusion of Part I.

Hume ends the first part of his chapter with a famous claim, and the two parts of the maxim can be formalized:

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 endeavors to establish; and even in that case there is a mutual destruction of arguments, and the superior only gives us an assurance suitable to that degree of force, which remains, after deducting the inferior. (*EHU*, 115–6 [10.13])

Sobel²⁸ has proposed a reconstruction of the first part of this ("no testimony is sufficient to establish a miracle, unless the testimony be of such a kind, that its falsehood would be more miraculous") as follows:

(HT) $P(M/E \& k) > P(\sim M \& t(M)/E \& k)$

(HT)²⁹ elaborates a necessary condition for belief in a miracle. But it is only a necessary reason and not a sufficient reason for believing in a miracle, because the formula does not imply $P(M \& t(M)/E \& k) > .5$. We

26. Bayes and Price had already developed their arguments in the 18th century; see Earman, *Hume's Abject Failure*.

27. Sobel, *Logic and Theism*, 299.

28. Sobel, *Logic and Theism*, 316.

29. Sobel calls it "Hume's theorem."

must add, as Earman³⁰ notes, that $t(M)$ must be included in the condition, even if Hume does not mention the testimony when he says:

unless the testimony be of such a kind, that its falsehood would be more miraculous, than the fact [and not the fact given the testimony as Hume should have said], which it endeavors to establish.

Here is a fine encapsulation of the maxim, as proposed by Earman:³¹

$$P(M / t(M) \& E \& k) > P(\sim M / t(M) \& E \& k)$$

—that is:

$$P(M / t(M) \& E \& k) > .5$$

It is a platitude highlighting the well-known need for strong evidence in favor of any miracle report. Moreover, Earman rightly concludes that the maxim we find in Hume's text is impressive because of Hume's formulation, or his rhetoric, and not because of its content.

The second part of the maxim is also difficult to assume:

even in that case there is a mutual destruction of arguments, and the superior only gives us an assurance suitable to that degree of force, which remains, after deducting the inferior.

Hume seems to say that

$$\begin{aligned} \text{Whenever } P(t(M) \& \sim M) < P(M) \\ \text{then } P(M) &= P(M) - P(t(M) \& \sim M) \end{aligned}$$

which would mean that

$$\text{Whenever } P(t(M) \& \sim M) < P(M) \text{ then } P(t(M) \& \sim M) = 0$$

Which, in turn, Hume could not have thought. I do not see any better conclusions than these two: 1) as Earman claims, "the second half of the

30. Earman, *Hume's Abject Failure*, 41.

31. *Ibid.*

Maxim appears to be nonsensical”³² and 2) following Sobel, I “despair of a ‘saving’ symbolization of Hume’s ‘second-part’ words.”³³

Probability calculus can also be used to clarify the problem of uniform experience which annihilates the weight of testimony. At the end of Part II, Hume says:

It is experience only, which gives authority to human testimony; and it is the same experience, which assures us of the laws of nature. When, therefore, these two kinds of experience are contrary, we have nothing to do but subtract the one from the other, and embrace an opinion, either on one side or the other, with that assurance which arises from the remainder. But according to the principle here explained, this subtraction, with regard to all popular religions, amounts to an entire annihilation; and therefore we may establish it as a maxim, that no human testimony can have such force as to prove a miracle, and make it a just foundation for any such system of religion. (*EHU*, 127 [10.35])

Let us use Bayes’s theorem³⁴ for a probabilistic interpretation of this way of proceeding:

$$(BT) \quad P(M/t(M) \& E \& k) = 1 / 1 + [(1 - P(M/E \& k)) / P(M/E \& k)] \{ P(t(M)/\sim M \& E \& k) / P(t(M)/M \& E \& k) \}$$

This will show, unsurprisingly, that an examination of the probability of a miracle occurrence depends on our sense of the prior probability that some miracle can occur, and on our belief in the reliability of the witness.

Hume wants to defend the following inference:³⁵

- (1) If $P(M/E \& k)$ tends to 0 then $P(M/t(M) \& E \& k)$ tends to 0.

For $P(M/t(M) \& E \& k) > .5$, [...] in (BT) has to be inferior to 1. But, $P(M/E \& k)$ is very low because there is a presumptive rejection against miracles based on uniform experience and then [...] is huge. So [...] has to be very low, that is:

32. *Ibid.*, 43.

33. Sobel, *Logic and Theism*, 319.

34. See Richard Swinburne, ed., *Bayes’s Theorem* (Oxford: Oxford University Press, 2002).

35. See Earman, *Hume’s Abject Failure*, 47–48.

$$(2) \quad P(t(M) / \sim M \& E \& k) \ll P(t(M) / M \& E \& k)$$

Part 2 can be understood as a refutation of this last claim. If testimonies are from enthusiasts then $P(t(M) / \sim M \& E \& k)$ does not seem very low in respect of $P(t(M) / M \& E \& k)$, but if testimonies are from careful people who, for religious and social reasons, are afraid of committing errors and don't believe in God just because they have seen miracles, it is rational to refuse (2). Maybe it is not already sufficient, and the defender of miracles has also to increase $P(M / E \& k)$ in order to increase [...] and to allow (2) and then $P(M / t(M) \& E \& k) > .5$. However, discussion upon this point will be pursued no further here, since a general defense of miracle testimony is beyond the scope of this article.

In order to formalize Hume's presumption against the natural possibility of miracles, Sobel contends that the probability of a miracle is infinitesimal. But what are the objective constraints on this probability? In general, objective constraints come from the frequency data that constitute the reference class, but Hume fixes reference classes in a questionable manner. Firstly, as we have seen, he repudiates all forms of testimony for psychological and historical reasons, without accepting even the possibility of there being a careful and reasonable witness. Secondly, for miracle occurrence, the reference class is misstated because, as we have seen, Hume does not really take into account violations of laws of nature without a naturalistic bias. Even if we accept the possibility of an error in the testimony and a general uniform experience, we have some reasons for believing that the probability of a miracle is more than infinitesimal.

The fundamental issue here is what attitude we should adopt when faced with a witness whose testimony seems reliable. Johnson³⁶ uses a thought experiment in order to highlight the role of precedents in increasing $P(M / t(M) \& E \& k)$. You might believe a generally trustworthy witness who says that she found a red marble in an urn, even though vast previous sampling had found only green marbles. But this does not seem to be a miracle—just a change. Our intuition about this case is not an intuition about miracles in which a violation of a law of nature rules out further scientific explanations. Fogelin³⁷ disagrees with Johnson. He argues that you would rationally disbelieve a normally reliable source who told you that George Bush had walked across a swimming pool on a tightrope or

36. Johnson, *Hume, Holism, and Miracles*, 25–26.

37. Fogelin, *A Defense of Hume on Miracles*, 10–13.

across the surface of water, and that you would rationally disbelieve someone who told too many stories of coincidental celebrity encounters. In all these cases, the *a posteriori* probability depends on precedents—subjective precedents—and on different intuitions about what seems, in general, believable or not. A person who has been taught from the beginning of her life that God exists etc., has a stronger precedent, as Sobel³⁸ admits, and an instance of miracle testimony is then more likely to increase her belief in a miraculous occurrence. Furthermore, if various reliable witnesses were to tell me that George Bush had walked across a swimming pool on a tightrope, I am not sure I would disbelieve them because of the achievement, rather than because of the individual involved. If I was told by a reliable witness that a saint had performed a miracle, I would find in that testimony a rational basis for believing that a miracle had indeed occurred.

Against this attitude, Part II offers a weak and programmatic rebuttal: weak because it states a method for further explanations of miracles that is too vague to explain important religious miracles, and programmatic because it only states that some miracles are misreported. In the beginning of the second part, Hume claims “there never was a miraculous event established on so full an evidence.” This is programmatic: religious believers can challenge this affirmation over and over again. Therefore, it is questionable whether every report of a miracle is false, or even just very probably false. It is easy to prove that most miracle reports are dubious, but the inductive leap to the idea that no miracle report is believable is just another form of question-begging. Without any religious belief or religious tendency to believe in an omnipotent being, and given the vast amount of false miracle reports, it is difficult not to believe that the prior and posterior probabilities of miracles are very, very low; but with a form of religious belief in place, is it still irrational to believe that a miracle can occur and that a witness can be reliable?

6. THEISTIC AND ATHEISTIC BACKGROUNDS

Many philosophers of religion would accept the addition of religious beliefs to our background knowledge, as something that then alters our prior probabilities without entailing any loss of rationality, but Hume radically rejects this approach:

But if the spirit of religion join itself to the love of wonder, there is an end

38. Sobel, *Logic and Theism*, 312.

of common sense; and human testimony, in these circumstances, loses all pretensions to authority. (*EHU*, 117 [10.17])

We may conclude, that the Christian Religion not only was at first attended with miracles, but even at this day cannot be believed by any reasonable person without one. Mere reason is insufficient to convince us of its veracity: and whoever is moved by faith to assent to it, is conscious of a continued miracle in his own person, which subverts all the principles of his understanding, and gives him a determination to believe what is most contrary to custom and experience. (*EHU*, 131 [10.41])

Plantinga³⁹ quotes the latter passage, following it with this complete rejection of Hume's statement:

According to the testimonial model, Hume (sarcasm aside) is partly right: belief in the main lines of the gospel is produced in Christians by a special work of the Holy Spirit, not by the belief-producing faculties and processes with which we were originally created. Further, some of what Christians believe (e.g., that a human being was dead and then arose from the dead) is as Hume says, contrary to custom and experience: it seldom happens. Of course it doesn't follow, contrary to Hume's implicit suggestion, that there is anything irrational or contrary to reason in believing it, given the internal instigation of the Holy Spirit.

Reformed epistemology, as developed by Plantinga and Wolterstorff in *Faith and Rationality*⁴⁰ and by Plantinga in *Warranted Christian Belief*, offers a powerful rebuttal of the sort of general rejection of religious beliefs that takes them to lie outside of any properly functioning rationality. If theists can provide an account of religious beliefs which presents religious beliefs as basic and warranted beliefs, then they have an account of the rationality of belief in the existence of an omnipotent being who can perform miracles. Of course, careful examination of miracle reports can destroy the strength of the *a posteriori* probability $P(M / t(M) \& E \& k)$, but the prior probability $P(M / E \& k)$ is not infinitesimal or very, very low, and a careful witness can be believed. I don't wish to go any further into this theory here: I just mention it in order to explain on what rational grounds

39. Alvin Plantinga, *Warranted Christian Belief* (Oxford: Oxford University Press, 2000), 284–85.

40. Alvin Plantinga and Nicholas Wolterstorff, eds., *Faith and Rationality: Reason and Belief in God* (Notre Dame: University of Notre Dame Press, 1983).

the suspicion of miracles can be challenged and how the possibility, and not the reality, of miracle occurrences and of there being reliable witnesses of miracles can be taken seriously.

Even if a theist rejects reformed epistemology and wants to defend an evidentialistic epistemology of religious belief, miracle testimonies can be believed and can come to serve as evidence for the existence of God.⁴¹ If evidence for God's existence is called for, then miracles can be added as additional confirmation of God's existence for someone who has already studied different arguments for God's existence. The background knowledge, even within an evidentialistic epistemology, can contain reasons for believing that God exists—reasons such as the cosmological or teleological arguments that do not presuppose any belief in miracles. These reasons are relevant, whereas Hume considers that only laws of nature provide the relevant evidential background when someone is examining a report of a miracle. Here we see yet another instance of Hume's naturalistically question-begging approach to the problem.

CONCLUSION

Hume is neither a religious thinker nor a postmodern writer. Nature cannot be a place for divine interventions nor a place for non-religious miracles such as Pynchon's anarchist miracle. Therefore, Hume begs the question: for him, every miracle report simply must be challenged, either by a naturalistic account of the event or by a psychological critique of the witness's reliability. Is this naturalistic background itself rational? I do not know whether naturalism can count as a rational form of basic belief, or as a justified belief based on evidence, but I am pretty confident that theistic forms of belief can count as either.

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41. Swinburne, *The Existence of God*, 284.

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