

supposed to see the brushstrokes of the artist." (p. 76) We might say that Brown examines metaphor from the outside, whereas Lightman's book approaches it from the inside, embodying as he does the *experience* of metaphor (a *crossing over* or *transference* between art and science). But why is metaphor so mysterious? If part of it is because it has long been subordinated to logic as a method of human reasoning, I think that each of these books goes a long way to definitively correcting such a vision.

SHANNON FOSKETT

*Centre for the Study of Theory and Criticism*  
*University of Western Ontario*  
*London, Ontario*  
*Canada*  
 sfoskett@uwo.ca

**Hume's Abject Failure: The Argument against Miracles** by John Earman. Oxford University Press, 2000. xi + 217 pp. \$29.95 (paper). ISBN 0-19-512738-2.

**A Defense of Hume on Miracles** by Robert Fogelin. Princeton University Press, 2003. xii + 101 pp. \$35.00 (cloth). ISBN 0-691-11430-7.

John Earman is as suspicious of specific miracle claims as he is of philosophical attempts to rule them out of hand. As Earman reads it, Hume's celebrated essay on miracles, a version of which was written in 1737 but did not appear in print until 1748 as section X of his *Enquiries Concerning Human Understanding*, aims to show that there is never enough reason to believe reports of miracles. Earman finds two arguments in Hume's essay: one that considers the evidence against miracles alone and a second that weighs the evidence for and against miracles.

A miracle is, by definition, a violation of a law of nature, which is a generalization based on uniform experience. Because uniform experience provides us with the best proof experience can furnish, a belief in any miracle always has against it the best proof experience can possibly provide. A belief in miracles is, therefore, never warranted. This is the first argument Earman reads in Hume. Against it he argues that because even completely uniform experience cannot establish natural law with absolute certainty (the probability of 1), ruling out violations of natural law is dogmatic. A natural law is confirmed by observing a regularity in nature, but there is nothing to ensure that unobserved cases will continue to conform to the observed regularity. No matter how low the probability, the possibility of a law-violating event will always remain.

Wanting to distance himself from the dogmatism of this argument, Hume, on Earman's reading, retreats and provides a second argument in which he also weighs the evidence in favor of miracles. Uniform testimony is, in the best case, the evidence in favor of a miracle. Because miracles are violations of natural

law, uniform testimony must be balanced against the evidence in favor of the corresponding law. Testimonial evidence can diminish, but never outweigh, the evidence from uniform experience that establishes the law. When weighed against each other, the scale will always tip in favor of natural law and against miracles. One may wonder if the second argument Earman ascribes to Hume is any less dogmatic than the first. It relies on the definitions of miracle and natural law just like the first, and insofar as it looks at the evidence for each, it pre-judges their relative weight. Earman, however, does not criticize this argument for being dogmatic. He claims instead that there are conditions under which the evidentiary value of testimony in favor of a miracle, no matter how tiny the probability of the miraculous event itself, will be greater than that of the uniform experience against it. Thus miracles cannot be ruled out of hand. Earman's criticism can be put in the form of a dilemma for Hume: either claim that the confirmation of natural law flatly rules out any consideration of evidence for miracles and accept the charge of dogmatism, or else allow the possibility of evidence for miracles and risk the possibility that that evidence might amount to justification. Hume can't both be opposed to dogmatism, as he claims to be, and rule out miracles out of hand.

Earman fleshes out both his objections using the tools of Bayesian probability calculus. Because Bayesian probability theory was available to Hume (Thomas Bayes and his early follower, Richard Price, were rough contemporaries of Hume), Earman does not think there is anything unfair about applying Bayesian tools to Hume's analysis. Hume, Earman reminds us, had read Price's Bayesian critique of his work, but did not use Bayesian tools, Earman suggests, because he did not understand how to use them. More charitably though, Hume's refusal to use a tool that was available to him may indicate that he did not find it suitable for his purposes. What Bayesians mean when they assign a statement the probability of 1 is not the same as what Hume has in mind when he expresses full confidence in a statement of natural law. A statement has the probability of 1 if it is strictly impossible for it to turn out false. Hume, on the other hand, thinks it is appropriate to be confident in a statement if the association of ideas it states has been causally fixed in the mind in the appropriate way. But because on Hume's analysis, causally related ideas are not necessarily connected, the probability that the idea of the effect will follow the idea of the cause is less than 1. Overlooking that difference, Earman attributes to Hume what he calls the straight rule of induction, which he renders as follows: "if  $n$  As have been examined, all of which were found to be Bs, then if  $n$  is sufficiently large, the probability that all As are Bs is 1" (23).<sup>1</sup> Hume simply never subscribes to such a rule. He was well aware of the asymptotic nature of the confirmation of law statements. In fact, it is Hume's name that most prominently comes to mind when we think of the so-called problem of induction (i.e., the idea that reason cannot provide us with certainty [having the probability of 1]), that unobserved cases will conform to the relevantly similar observed ones. For Hume, all matter of fact statements (not those that merely relate concepts) are possible and none are certain.

Now, it is true that soon after presenting his doubts about induction, Hume ignores them and expresses full confidence in the regularity of nature and the persistence of natural law without seeming to offer anything in the way of a suggestion on how to remove those doubts. He sometimes states his confidence in very strong language. Despite reason's inability to prove the conformity of the unobserved to the observed, it is, in some sense, reasonable to rely on natural laws and not to expect miracles. That does not mean that the probability of future violation of natural law is flatly 0. Hume repeats this pattern in which he undermines our common notions (causality, self identity, existence of the external world, and so forth), and then ignores the conclusions of his own arguments and goes on to theorize using those very notions. Here is an interpretative puzzle with which Earman does not deal at all. He is surely aware of Hume's famous skeptical arguments about induction and the other notions, but he is too narrowly focused on the essay on miracles to take anything into consideration from Hume's other writings. Earman does an admirable job of setting Hume's essay within the seventeenth and eighteenth centuries' debate on miracles and even reprints some key essays of the period on the topic as the second part of his book. But for all his contextualizing of Hume's essay, Earman makes no effort to set Hume's treatment of miracles within Hume's overall philosophical project. Had he done that, he may have seen that for Hume, being fully confident about a statement is not the same as assigning that statement the probability of 1 and its negation 0. Though Hume provides definitions for natural law and miracles and never genuinely doubts the regularity of nature, he never puts forth the first argument Earman attributes to him. Indeed close to the end of his essay, Hume explicitly rejects its conclusion and admits the possibility of violations of natural law. He admits that miracles may be proven by testimony. He writes:

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. (EHU 127)

Hume goes further. He even accepts Earman's claim that the evidence from testimony can amount to more than that of uniform experience. He continues:

[t]he 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. (EHU 127)

If testimony supporting a miracle is more "extensive and uniform" than the experience confirming the supposed law it violates, Hume cannot disallow the

miracle. So unless he has radically shifted his position from the beginning of his essay, where Earman claims to find the first argument, Hume does not advance that argument.

In the passages reproduced above, Hume does rule out of hand miracles that serve as "the foundation of a system of religion" (religious miracles, for short). How does Hume draw that distinction? His detractors have accused him of doing so arbitrarily. Some have pointed to his essay on miracles as a place where his anti-religious dogmatism is plain. What could be the difference between a religious and a secular miracle? These questions are interesting in and of themselves, but I raise them in this context because answering them correctly helps us see why Earman's objection to Hume's second argument does not work. If we presume that Hume agrees that the laws of nature are blind to the purposes to which we put events, how could he claim that an event with religious significance has a different status than one without such significance? Putting the question in terms of the features of events themselves does indeed make it sound like Hume's distinction is an arbitrary reflection of his own well-known anti-religious sentiments. But would a great thinker like Hume make a distinction so arbitrarily, especially one as important and as explicitly stated as this one? There must be another way to understand his distinction.

Hume's distinction between religious and secular miracles is based on the difference in the evidentiary values of the *testimony* for the two types of events, rather than any features of the events themselves or the purposes they may serve for us. Religious enthusiasts are not reliable witnesses, whereas others can be, according to Hume. His distinction between religious and secular miracles then, rests on his position on the psychology and social psychology of religious belief. In his *History of Natural Religion*, among other places, Hume explains why he thinks humans are particularly susceptible to religious dogma. That explanation requires more attention than it is possible to give it here. Briefly though, for Hume, the social bonds formed by religious belief remedy many of our psychological inadequacies. Those bonds in turn intensify the passions, often leading to extremism. One characteristic of religious enthusiasts is that they are prone to misjudge or misreport what they witness and so their testimony has little or no evidentiary value.<sup>2</sup> Hume's psychological generalizations about religious enthusiasts may be overly influenced by his own socio-historic context and there is perhaps little in it that would strike our early twenty-first century ears as new, but it does inform Hume's arguments against religious miracles and should not be ignored in their assessment. If so, the crux of the disagreement between Earman and Hume shifts from the probability of miracles to the psychology of religious belief.

The dilemma Earman poses for Hume resurfaces in terms of the psychological theory: Either Hume can refuse to grant any evidentiary value to testimony in favor of a religious miracle by a religious enthusiast (religious testimony, for short) and invite the charge of dogmatism, or else he can allow that such testimony has some value and risk the possibility that the value of such

testimony can exceed that of uniform experience. If Hume insists that the psychological profile of religious enthusiasts reduces religious testimony down to zero, he would put a lot of burden on his psychological theory. The theory would have to show that no religious testimony has ever provided any evidence at all. Just as the confirmation of natural law could not rule out the possibility of future violations, Hume's psychological theory would not be able to deliver that much. Hume is again open to the charges of dogmatism and arbitrarily ruling out evidence for religious miracles. On the other hand, he can accept that religious testimony provides some evidence, but can rely on his psychological account to insist that it provides less or much less than secular testimony. The more the psychological theory justifies, the more Hume can discount the evidentiary value of religious testimony. But so long as religious testimony provides some evidence and the difference between it and secular testimony is a matter of degree, Earman can claim that there are conditions under which the evidence from religious testimony exceeds uniform experience. Here is where Earman's objection to Hume's second argument, contrary to his intentions, comes to Hume's aid. His discussion of that objection shows how Hume can escape between the horns of this dilemma by holding that though the evidentiary value of religious testimony is greater than zero, it can never add up to more than the evidence for the law it violates. Let's finally consider Earman's objection to Hume's second argument.

Earman's objection to Hume's second argument is that there are conditions under which the evidence in favor of testimony can outweigh that of uniform experience. I'll discuss two of the conditions he puts forth. First, he argues that what he calls Hume's diminution principle is not effective in all cases of testimony. According to Hume's principle, the higher the prior improbability of a reported event, the less the evidentiary value of the testimony to it. So the value of testimony decreases as we go down the scale of probability from the mundane to the marvelous to the miraculous. Seems intuitive enough. Earman argues that matters are more complicated. He discusses several cases of witnesses reporting events and concludes that sometimes Hume's diminution principle is effective and sometimes it is not. We cannot diminish the value of testimonial evidence for religious miracles out of hand, Earman concludes, because the cases of religious testimony do not all fall under the cases in which the diminution principle is effective. We have to look at each case of religious testimony individually. Secondly, Earman argues that testimony from multiple witnesses to a miracle can, under certain conditions, increase the evidentiary value of their testimony above that of uniform experience. If enough people testify to a religious miracle, the weight of their collective testimony can be greater than that of uniform experience supporting the law it violates. So not only is there no reason to diminish the value of religious testimony wholesale, but there may be cases in which summing up the values of each individual testimony ends up being greater than the value of uniform experience.

Earman's analysis of both these points rests on what Hume's psychological

theory denies. His diminution principle becomes ineffective and additional witnesses increase the evidence of their testimony only when the witnesses are reliable and independent. Earman himself is quite explicit about that. Close to the end of his discussion of the diminution principle, he writes that if "the psychological profiles of religious enthusiasts make them incapable of reducing the probabilities of error and deceit to low enough values," the diminution effect will hold in all cases. He even admits that "Hume clearly believed some proposition in the neighborhood of this one," but does not pursue the point after noticing that "'Of Miracles' will be searched in vain for a convincing general argument for it" (53). Similarly, after his discussion of multiple witnessing, Earman reminds us that in order for additional witnesses to increase the evidentiary value of their testimonies, each witness must be minimally reliable and independent, and admits that in actual cases of religious testimony, they may not be. He has in mind faith healers and the like. But he does not see any in-principle reason why they cannot meet these conditions. Hume's psychological theory aims to show precisely the in-principle reason Earman demands. So the issue between Earman and Hume turns not on the value of testimony versus experience, but rather on the adequacy of Hume's psychological theory. By grounding Hume's claim that no amount of religious testimony can justify a religious miracle, the psychological theory may be an appropriate object of Earman's suspicions about the philosopher's impulse to rule out of hand entire classes of things. Earman's charge of dogmatism may stick to the psychological theory, but his second objection to Hume's argument against religious miracles shows why Hume's distinction between religious and secular miracles is not arbitrary. If Hume's position on the psychology of religious belief is accepted, Earman's criticism turns into Bayesian support for Hume's distinction.

Earman starts his essay promising what the reader comes to expect by its title: a no-holds-barred polemic against Hume. Among his charges is that Hume promises more on the initial pages of his essay than he delivers in the rest. In the beginning of his essay, Hume triumphantly announces to have "discovered" an argument that will "be an everlasting check to all kinds of superstitious delusion, and consequently, will be useful as long as the world endures" (*EHU* 110). And on the first page of *his* essay, Earman denounces the argument in Hume's essay as by and large "unoriginal," and where original, revelatory of the "weakness and the poverty of Hume's own account of induction and probabilistic reasoning" (3). Earman's arguments are an attempt to show that. If the claims made here are correct, however, Earman has promised more on the initial pages of his essay than he delivers in the rest. Hume's attempt is not an abject failure; if it is a failure at all, it is for reasons different from the ones Earman proposes.

Robert Fogelin's book consists of three parts. The first, in which he offers his reading and defense of Hume, is far more interesting than the other two. In the second he responds to two recent critics of Hume—Earman being one of them—and in the third he offers some suggestions on how Hume's essay on miracles

fits within Hume's overall philosophical program. I'll restrict my comments to Fogelin's reading and defense of Hume.

Recall that Hume's essay has two parts. In the first he offers his argument against miracles and in the second, he recounts and dismisses a few alleged Christian miracles. On Fogelin's reading, Hume proposes in the first part of his essay conditions for the acceptability of testimony, leaving it open whether those conditions can be met in the case of testimony to miracles, and in the second, he argues that in fact no religious testimony has met them to date. So unlike many other commentators, Fogelin sees the second part of Hume's essay as essential to Hume's argument against religious miracles.

Hume offers two tests or methods for evaluating testimony, in Fogelin's view. The first is based on all factors *not* having to do with the content of the testimony, such as the reliability and quantity of the witnesses, whether they have a stake in the listeners accepting their testimony, and other such criteria. This is the direct method for evaluating testimony. By the reverse method we consider the probability of the event being reported prior to and independent of the testimonial evidence being offered. Fogelin's reverse method is what Earman calls Hume's diminution principle. The hard cases are those in which the two methods yield opposite results, as is the cases of uniform and extensive testimony to miracles. The direct method in those cases bids us to accept the testimony, whereas by the reverse method, we assign a high probability to it being false. Key to Fogelin's interpretation is the following passage in Hume's essay:

But in order to increase [sic] the probability against the testimony of witnesses, let us suppose, that the fact, which they affirm, instead of being only marvellous, [sic] is really miraculous; and suppose also, that the testimony, considered apart and in itself, amounts to an entire proof; in that case, there is proof against proof, of which the strongest must prevail, but still with a diminution of its force, in proportion to that of its antagonist. (EHU 114)

The passage occurs close to the end of the first part of the essay. Hume, according to Fogelin, does not pre-judge the outcome of the contest in the first part. His survey of alleged miracles in the second part is intended to show that to date no testimony to such events "amounts to an entire proof" by the direct method. And, because a proof from experience for Hume is nothing other than uniform and extensive experience, we have proof (from experience) that no testimony will do so in the future. So we have proof from experience that the direct method will never provide proof for a miracle. Because the probability of miracles is only a very tiny bit above 0, the reverse method, on the other hand, will always provide a great deal of evidence against miracles. So, we have little evidence for and a lot of evidence against miracles. Therefore, we will never have enough reason to believe reports of miracles.

Fogelin's reading is appealing. It does justice to Hume's tendency to stay on the surface philosophically and let experience arbitrate matters on which

armchair philosophers endlessly dispute. It stands on the opposite extreme of the more common reading on which Hume advances an *a priori* argument against the possibility of miracles, similar to the first argument Earman reads into Hume. That is refreshing. But I think Fogelin has gone too far. The reading that informs the critique of Earman above is a happy medium between Fogelin's and the *a priori* readings. Let us call it the middle interpretation. It shares with Fogelin the claim that for Hume we ought to consider the evidence from testimony and weigh that evidence against uniform experience in the case of testimony to miracles. But according to the middle interpretation Hume digs a bit deeper than Fogelin allows him. He offers the psychological theory as an underlying explanation for why the evidence from religious testimony will never exceed that of uniform experience supporting a law. Because that theory is rooted in empirical social-psychology rather than the relation between the concept of law and miracles, the middle reading is far from the *a priori* reading. Furthermore, it fits well with the widely accepted understanding of Hume as having a low regard for religious enthusiasts' epistemological abilities. So the theory does not commit Hume to much more than he is committed already.

Let me raise two difficulties with Fogelin's reading. Considering them should make plain the dire consequences for Hume's distinction between religious and secular miracles if we do not interpret Hume as not being committed to an underlying explanation. First, on Fogelin's interpretation, how can Hume claim to rule out religious miracles? Fogelin relies on Hume's notion of proof as uniform and extended experience, together with the claim that in the second part of his essay, Hume aims to show we have such experience that religious testimony does not provide any evidence for religious miracles. Thus, Fogelin concludes, Hume is justified in saying that he has a proof against religious miracles. Though he clearly believes we have uniform and extended experience that all religious testimony has been false, it is not clear that Hume's intentions in part two of his essay is to establish that claim. He does debunk a few religious miracles in part two, but does not undertake a systematic survey, as one would expect if his conclusion was that all religious miracles fail the direct test. The religious enthusiast can appeal to considerations like the ones Earman puts forth, such as multiple witnessing, to argue that religious testimony can provide sufficient evidence. On the middle reading, by contrast, Hume has a theory that explains why religious testimony has and will fail and why Earman type considerations do not add value to religious testimony.

Secondly, on Fogelin's interpretation, it is not clear how Hume can leave open the possibility of secular miracles. Our experience of the failure of testimony to secular miracles (levitating furniture or bending a spoon by the power of the mind alone) is at least as extended and uniform as to that of religious miracles. If extended and uniform experience constitutes proof for Hume, as Fogelin rightly says, then Hume would have at least as strong an argument against secular

miracles. But as we have seen, he leaves the possibility of secular miracles open. Because the psychological theory does not discount secular testimony wholesale, Hume has no difficulty leaving the possibility of secular miracles open. In short, Fogelin's interpretation has difficulty drawing the distinction between religious and secular testimony that Hume needs in order to limit the scope of his conclusion. The middle interpretation accounts for the distinction by appealing to a psychological theory that respects Hume's commitment to empirical investigation and is consistent with his well-known distrust of religious enthusiasts.

KAVEH KAMOONEH

*University of Minnesota/Twin Cities*

*Minneapolis, Minnesota*

*kk57@columbia.edu*

### Notes

<sup>1</sup> Sole numbers in parentheses in the text refer to page numbers in the work under review. "EHU" followed by page numbers refers to pages in David Hume's *An Enquiry Concerning Human Understanding* (3rd ed.). L. A. Selby-Bigge and P. H. Nidditch, Eds. Clarendon Press, 1975, 5–165.

<sup>2</sup> It is not obvious that testimony to UFO abductions and the like fall under the same category for Hume, as Earman claims at one point (60–61). Though they bear some resemblance to the testimony of religious enthusiasts, witnesses to such alleged events may not have an all-encompassing worldview that allays the psychological inadequacies that Hume thinks religious belief does. Moreover, UFO abductions need not violate natural laws and so may not be miracles in Hume's sense.

### FURTHER BOOKS OF NOTE

**Science Fictions: A Scientific Mystery, a Massive Coverup, and the Dark Legacy of Robert Gallo** by John Crewdson. Back Bay, 2003. xvii + 670 pp. \$16.95 (paper).

The discovery of the virus that causes AIDS was announced at a press conference by the Secretary of Health and Human Services, Margaret Heckler, in 1984. She credited the discovery to Robert Gallo of the National Cancer Institute. Immediately thereafter, Gallo sent to *Science* four articles describing the discovery, and *Science* published them with unaccustomed speed.

As a matter of fact, the virus in question had been discovered at the Institut