

Hume on Laws and Miracles

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ABSTRACT

Hume famously argues that the laws of nature provide us with decisive reason to believe that any testimony of a miracle is false. In this paper, I argue that the laws of nature, as such, give us *no reason at all* to believe that the testimony of a miracle is false. I first argue that Hume's proof is unsuccessful if we assume the Humean view of laws, and then I argue that Hume's proof is unsuccessful even if we assume the governing view of laws. I conclude that regardless of which kind of view we adopt, the fact that a miracle is a violation of the laws of nature does not give us *any* reason to believe it did not happen.

INTRODUCTION

Hume famously argues that the laws of nature provide us with decisive reason to believe that any testimony of a miracle is false. Hume's argument is by far the most important treatment of miracles ever written and has been hugely influential in persuading people that believing in miracles is irrational. Yet the argument is not without its critics. The standard reply to Hume is to point out that there are possible cases in which the evidence from testimony that a miracle occurred *outweighs* the evidence from experience that the event conformed to the laws of nature. This reply, I take it, is correct so far as it goes. But notice that Hume assumes, and even his critics seem to concede, that the laws of nature provide substantial evidence against the occurrence of any miracle. In this paper, I make the rather more radical claim that the laws of nature, as such, give us *no reason at all* to believe that the testimony of a miracle is false. There may be reasons for thinking the testimony of a miracle is false, but that a miracle would violate the laws of nature is not among them.

Hume argues that experience teaches us that events always obey the laws of nature and that this gives us reason to doubt any testimony to the contrary. But Hume is in a particularly

weak position to use the laws to justify the rejection of a testimony of a miracle. This is not because, as it is often remarked, he raises the problem of induction. Although Hume forcefully argues that there is no non-circular justification for induction (*Enquiry* sect. 4), he never suggests that we should *reject* inductive reasoning; indeed, he gives rules for making appropriate inductive inferences (*Treatise*, pp. 173-176). So, the problem of induction is not the source of my complaint. Rather, Hume is in a poor position to argue that the laws of nature give us decisive reason to reject the testimony of a miracle because of his theory of laws. I take it (not uncontroversially) that Hume endorses a Humean View of Laws: the laws do not “govern” the outcome of particular events, but are instead a mere summary of what actually happens. Since, on this view, there is nothing about a law of nature that makes events occur the way they do, the fact that a miracle would violate a law of nature does not provide us with any reason to believe it did not happen.

My guess, though, is that part of the enduring appeal of Hume’s argument is that most of his readers do not hold the Humean view of laws. Intuitively, the laws of nature “govern” the outcome of particular events; that is, the laws somehow *make it the case* that particular events occur. On this Governing View of Laws, the laws do give us some reason for thinking that there would not be violations of the laws in counterfactual or unobserved cases. However, below I argue that Hume’s argument against believing miracles is unsuccessful even on the Governing View of Laws. My argument, in short, is that God, if he exists, *can* violate the laws at any time he wishes, so the mere fact that such-and-such is a law does not give us any reason to believe that God did not in fact violate that law on a given occasion. What I think we should say, then, is that, on the Governing View, the laws provide us with decisive evidence about what happened in a given case *unless* there is a good reason to believe God intervened. On such a view, the

assessment of any testimony of a miracle would always concern the *unless* clause: the mere fact that the reported miracle violated a law of nature would never, on its own, provide us with a reason for thinking it did not happen; it must always be determined whether there is a good reason to believe God would or did intervene in a given case.

I first argue, in Part 1, that Hume's proof is unsuccessful if we assume the Humean View of Laws, and then, in Part 2, I argue that Hume's proof is unsuccessful even if we assume the Governing View of Laws. I conclude that regardless of whether we adopt a Humean or a Governing View of laws, the fact that a miracle is a violation of the laws of nature does not give us *any* reason to believe it did not happen.

PART 1: HUMEAN LAWS AND MIRACLES

§1.1 Hume on "Proofs" and "Probability"

Hume largely accepts Locke's account of justification, including his view concerning testimony, so it will be worth quickly reviewing Locke's view and then seeing how Hume's view differs. The main idea is that they both believe that belief should be based on evidence, but they differ in the confidence that they assign to one kind of evidence from experience. Hume claims, whereas Locke denies, that the laws of nature provide decisive evidence against the occurrence of a miracle.

Locke sharply distinguishes between two types of arguments. A "demonstration" proceeds by showing that there is an *a priori* necessary connection between being an F and being a G. In geometry, for example, we could start with the idea of a triangle and parallel lines and then, in a series of steps, show that the interior angles of a triangle must be 180° (cf. *Essay* 4.1.2 and 4.2.2). The justification from a demonstration, then, is such that it entails the truth of the

proposition. By contrast, a “probability argument” (my term) shows, in a series of steps, that there is *likely* to be a connection between being an F and being a G; in such a case, the connection “is not perceived [as it is in a demonstration], but *presumed* to be so” (*Essay* 4.14.4). For example, we have seen only black ravens, and have done so on many different occasions and in a wide variety of circumstances, and thus it is most likely true, given this evidence, that “all ravens are black”. In this way, we can, on the basis of our past experience, presume that being a raven is connected to being black, even though we do not perceive any *a priori* connection between these properties. The evidence from experience, of course, does not rule out the possibility that a heretofore unobserved raven is not black. For this reason, the evidence from past experience can, at best, make it *likely* to be true that all Fs are Gs. The justification from a probability argument, then, is such that it makes the truth of the proposition likely to be true (*Essay* 4.15.3).

There are, on Locke’s account, two sources of probabilistic evidence: one is our own knowledge and observations, and the other is “the testimony of others” (*Essay* 4.15.4). A proposition about a particular object or event is judged to be more or less probable depending on how well it fits with these sources of evidence. Both these sources of evidence, for example, provide justification for believing the proposition “all ravens are black” and provide evidence against the proposition “most ravens weigh 100 pounds”. Most of what Locke says, though, is directed at evaluating a testimony concerning a particular case. In the best case, the testimony that “*this* F was G” conforms with my experience and the reported experience of others that *all* other observed Fs are Gs. This merits the highest degree of probable evidence (*Essay* 4.16.6). Next, a testimony that “*this* F was G” conforms with my experience and the reported experience of others that *most* observed Fs are Gs and thus merits a high (but not the highest) degree of

probable evidence (*Essay* 4.16.7). In both these cases, the evidence from my own and others' reported experience conform with the testimony of the particular case. The more interesting case, however, is when the testimony that "*this* F was G" conflicts with my experience and the reported experience of others that all or most Fs are *not* Gs. In that case, "the probability of the thing...rises and falls, according as those two foundations of credibility, *viz.* common observation in like cases, and particular testimonies in that particular instance, favour or contradict it" (*Essay* 4.16.9). Notice that the testimony of a miracle would fall into this last category. Interestingly, Locke does not think that we can determine in advance whether we ought to believe the testimony about a particular miracle or reject it solely on the basis of our own and others' reported experience of what usually happens; we must instead evaluate each case individually. Moreover, he explicitly states that we ought to make an exception in the case of miracles (cf. *Essay* 4.16.13). On Locke's account, then, it may be rational in some cases to believe a testimony that a violation of the laws of nature occurred.

Hume follows Locke in accepting much of the above account, but there are important differences. One point of agreement is that both our own past experience and the testimony of others count as sources of evidence. As a further point of agreement, Hume takes the fact that a testimony of a particular case conflicts with our past experience as evidence against the truth of the testimony. One significant point of disagreement, though, is that Hume claims that (in at least the case of miracles) the evidence from experience *always* outweighs the evidence from testimony. There is no principled reason why this should be so (Earman 2000). But set this worry aside.

In my view, the most important point of disagreement between Locke and Hume is the epistemic status they assign the different kinds of arguments. As we saw above, Locke divides

arguments into two kinds: demonstrations and probability arguments. Hume objects to this division as follows:

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 tomorrow. 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. (*Enquiry*, p. 56n)

Hume's "demonstrations" and "probabilities" line up with Locke's categories, but then Hume adds "proofs" as a third kind of argument. It is not entirely clear what a proof is supposed to be, though apparently it has an epistemic status between that of a demonstration and a probability argument. Consider his examples. We do not perceive an *a priori* necessary connection between being a man and dying, and hence Locke and Hume agree that we cannot demonstrate that "all men must die". The same goes for the proposition "the sun will rise tomorrow". According to Locke, past experience makes it *likely* that these propositions are true, but this is mere probability. Hume, surprisingly, is more optimistic about the degree of confidence we ought to have regarding the truth of these propositions. He *denies*, in some sense that is still to be determined, that it is *merely likely* that these propositions are true. The significance of this point is that he claims to have a "proof" that the testimony of a miracle should never be believed. The epistemic status of his proof, therefore, is supposed to exceed that of mere probability.

A proof and a probability argument are both based on past experience, but an important difference between them is that a proof is based on *uniform* past experience whereas *varied* past experience provides only probable evidence (cf. Johnson 1999, pp. 12-13; Earman 2000, p. 23). In the chapter "Of Probability", for example, Hume contrasts inferences made from uniform experience and those made from varied experience:

There are some causes, which are entirely uniform and constant in producing a particular effect; and no instance has ever yet been found of any failure or irregularity

in their operation. ...where the past has been entirely regular and uniform, we expect the event with the greatest assurance... (*Enquiry*, pp. 57-58)

But there are other causes, which have been found more irregular and uncertain... Though we give the preference to that which has been found most usual, and believe that this effect will exist, we must not overlook the other effects, but must assign to each of them a particular weight and authority, in proportion as we have found it to be more or less frequent. (*Enquiry*, pp. 57-58)

Hume, like Locke, takes the inference from uniform experience to a particular case to have a higher epistemic status than the inference from varied experience to particular experience.

(Locke, though, sees the difference in status as a difference in degree rather than a difference in kind.) Later, in the chapter “Of Miracles”, Hume describes inferences from uniform experience “as a *full proof*” and says inferences from varied experiences are what “we properly call *probability*” (*Enquiry*, pp. 110, 111 my emphasis).

We have seen that Hume takes a proof to be a distinctive kind of argument from uniform experience, but it is not clear why this argument is more than mere probability. Even if all Fs we have observed are Gs, Hume elsewhere admits the possibility that an unobserved F is not G (cf. *Enquiry* sect. 4). What, then, justifies such a high degree of confidence when inferring from uniform experience that an unobserved F is G? Part of the answer seems to be the percentage of observed Fs that are Gs. Speaking of varied experience, Hume says:

when we transfer the past to the future, in order to determine the effect, which will result from any cause, we transfer all the different events, *in the same proportion as they have appeared in the past.* (*Enquiry*, p. 58, my emphasis)

As John Earman (2000, pp. 22-23) notices, Hume here seems to be endorsing what Reichenbach calls the Straight Rule of Induction:

Hume’s Straight Rule of Induction

If in S’s experience *n%* of *observed* Fs are Gs, then S should believe that there is an *n%* probability that any given *unobserved* F is G.

According to this rule, the evidence from varied experience provides a merely probable justification (of less than 100%) about a particular case. But notice also that, by extension, if in our experience *all* observed Fs are Gs then we should believe that there is a 100% probability that a given unobserved F is G. Perhaps, then, applying the Straight Rule in this way explains why Hume takes a proof to be more than mere probability: in a “proof” we conclude that there is a 100% probability that an unobserved F is G, whereas in a mere probable argument we conclude that there is less than a 100% probability that an unobserved F is G (Johnson 1999, p. 12; Earman 2000, p. 23).

If Hume’s position is to be at all plausible, though, a proof cannot consist entirely in an inductive inference from uniform experience. For observing an accidentally true generalization does not allow us to project to other cases, at least not with decisive evidence. Suppose, for example, I follow track closely and I am aware that the fastest person to ever run the 100 meter did so in n seconds. According to the Straight Rule, I should think that there is 0% probability that if Usain Bolt were to run the 100 meter today then he would do so in less than n seconds. That is absurd. There is obviously a non-zero probability that Usain Bolt, or someone else, will run the 100 meter in less than n seconds. It is just an accident of history that, so far, no one has actually done so. The point here is that even though I have uniform experience that all those running the 100 meter take n seconds or longer, this merely accidentally true generalization does not give me a decisive reason to believe that in the next race all the runners will take n seconds or longer. This implication has led many to object that, on Hume’s view, it would never be rational to accept a report of a novel event, such as a new achievement, new scientific discovery, and so forth, and this implication is highly implausible (Earman 2000, pp. 30-32; Hajek 2008, pp. 102-103; van Inwagen 1998).

In Hume's defense, though, he does not have merely accidentally true generalizations in mind; rather, he has in mind inferences from the *laws of nature*. He asks:

Why is it *more than probable*, that all men must die; that lead cannot, of itself, remain suspended in the air; that fire consumes wood, and is extinguished by water; unless it be, that *these events are found agreeable to the laws of nature*, and there is a required violation of these laws, or in other words, a miracle to prevent them? (*Enquiry*, pp. 114-115)

Hume suggests here it is “more than probable” that “all men must die” (and so forth) because this is “agreeable to the laws of nature”. Similarly, the examples of proofs he cites elsewhere are “all men must die” and “the sun will rise tomorrow” (*Enquiry*, p. 56n). All of these examples can plausibly be taken to be (or follow from) laws of nature. Indeed, in Hume's proof against believing in miracles, he is quite explicit that we are making an inference from our uniform experience of a law of nature to the non-occurrence of the event (*Enquiry*, pp. 114-115). So, Hume seems to think of a proof as an argument that has a law of nature as a premise and a claim about a particular instance as a conclusion.

This amendment to Hume's notion of a proof solves the above cited difficulty. There seems to be a significant difference in inferences from the laws of nature and inferences from mere regularities. Intuitively, the laws of nature are projectable in a way that mere regularities are not. To continue the example from above, suppose I hear on the radio that Usain Bolt broke the world record by running the 100 meter in $n-1$ seconds. Because running the 100 meter was merely an accidental regularity, my past (though uniform) experience does *not* give me a decisive reason to believe he did *not* break the world record. (That is, it may be rational for me to believe that Usain Bolt broke the world record.) By contrast, if I hear on the radio that Usain Bolt ran faster than the speed of light, then I *do* have decisive evidence that the news report is mistaken. Because it is a law of nature that no object travel faster than the speed of light, I can

infer, with the utmost confidence, that Usain Bolt did not run faster than the speed of light. So, Hume's distinction between a proof and a probability argument can plausibly be maintained by making a proof an inference from the laws of nature while a probability argument is an inference from an accidental regularity.

In this section I have argued that Hume thinks that a "proof" is a distinctive kind of argument that uses a well-established law of nature to make an inference about a particular case. According to Hume, such an inference is *not* "merely probable"; rather, the inference is decisive. This is an intuitive position, and I take it that this is the appeal of Hume's "proof" against believing in miracles, to which I now turn.

§1.2 Hume's "Proof" Against Believing in Miracles

Hume claims that, given that a miracle is a violation of a law of nature, we have a decisive reason for rejecting any testimony that a miracle occurred. In this section, I explain Hume's argument and defend it from some common criticisms.

Hume seems to think of laws of nature as universal generalizations of a certain kind, and given this view he could argue that, as a *universal* generalization, there could not be any miraculous violations of the law. Suppose, for example, "all Fs are Gs" is a law of nature, which is to say (on this interpretation) that it is an exceptionless and perfectly uniform regularity that Fs are Gs. In that case, the law entails that any particular F is G. On this way of thinking about the argument, it would be *impossible* for "all Fs are Gs" to be a law of nature and yet there to be an F that is not G. Thus, when someone comes along and says, "Hey, I saw an F, but it wasn't G!" this testimony must be false. This is a terrible argument because it takes as a starting assumption the fact that there are no exceptions to the laws, which just begs the question against the believer

in miracles. I take it Hume is making a rather different point. The argument is supposed to be that the evidence from the cases we *observe* gives us reason to reject a claim about a miracle we *did not observe*. In other words, Hume wants to grant the possibility of a violation of the laws of nature and yet nonetheless argue that past experience of the laws of nature provide us with decisive reason for rejecting the testimony of a miracle.

Above we saw that Hume's notion of a "proof" is an argument that takes uniform past experience as its starting point and then makes an inference to a particular case. He uses this kind of inference to reject the occurrence of miracles:

And as *uniform experience amounts to a proof*, there is here a direct and full proof, from the very nature of the fact, against the existence of any miracle... (*Enquiry*, p. 115 my emphasis)

Also noted above, however, is that a merely accidentally true generalization does not allow us to make inferences to particular cases with the kind of confidence that Hume takes to be characteristic of proofs. So, to be a proof, our uniform experience must be tracking a law of nature. He says:

A miracle is a violation of the laws of nature, and as a firm and unalterable experience has established these *laws*, the *proof* against a miracle, from the very nature of the fact, is as entire as any argument from experience could possibly be imagined. (*Enquiry*, p. 114, my emphasis)

A plausible way to reconstruct Hume's argument, then, is to take our uniform past experience as evidence that such-and-such is a law of nature, and then its status as a law of nature is supposed to provide decisive evidence that no exception occurred on a given occasion. Indeed, according to the Straight Rule, we should believe, given our uniform past experience of a law-like regularity, that the probability that a miracle occurred is *zero*.

Yet Hume concedes that evidence from uniform past experience does not always provide decisive evidence against believing the testimony to the contrary. Consider Locke's "King of

Siam” example, which Hume repackages as the “Indian Prince”. On Locke’s version (*Essay* 4.15.5), a visitor from Holland tells the King of Siam, who lives in a tropical climate and has never seen nor heard of ice, that in the winter in Holland it gets so cold that water turns into a solid and people walk on top of it. Locke thinks that, given the King’s past experience, he will rationally reject the visitor’s testimony: “Hitherto I have believed the strange things you have told me, ...but now I am sure you lye” (*Essay* 4.15.5). This is a plausible position; although the King ends up with a false belief, his belief is rational given his evidence. Yet Locke elsewhere leaves open the possibility that, when the number and quality of testimony is high enough, the evidence from testimony can outweigh the evidence from experience (*Essay* 4.15.12). For example, suppose a hundred (or more) visitors come at different times and they all, individually and independently, tell the King about how in the winter the water in lakes and rivers turns to ice. Locke would presumably concede that in this case it is rational, given the evidence from testimony, for the King to believe that cold water becomes solid. Indeed, it would be implausible to say otherwise; at *some point* the evidence from testimony *should* outweigh the evidence of the King’s uniform past experience. In Hume’s version, he says the Indian Prince “reasoned justly” when he “refused to believe the first relations concerning the effects of frost, ...and it naturally required a *very strong testimony* to engage his assent” (*Enquiry*, p. 113, my emphasis). Again, conceding that testimony can outweigh uniform past experience is the right thing to say.

But if evidence from testimony can *sometimes* outweigh uniform past experience, then the question arises as to why it can never do so in the cases of miracles. On the one hand, if we apply the Straight Rule to the case of miracles then, by parity of reasoning, we should do so in the case of the Indian Prince (Earman 2000, pp. 35-37). So, given his uniform past experience, the Indian Prince should believe that the probability that water became solid on a particular

occasion is 0%. And if the evidence from uniform experience is taken to be decisive then no amount of evidence from testimony could outweigh it. This consequence is highly implausible in the case of the Prince, so we also ought to reject the argument with respect to miracles. On the other hand, if Hume allows testimony to outweigh the evidence of experience in the case of the Indian Prince then, again by parity of reasoning, he should allow for the possibility that the testimony of a miracle could outweigh the evidence from past experience (Earman 2000, p. 37). Thus, if this were his proof, it would fail to provide decisive evidence against believing the testimony of a miracle.

In defense of Hume, a “proof” requires that the generalization appealed to as evidence must be a law of nature, which it clearly is not in the case of the Indian Prince. Hume says that water becoming solid would be, given the Prince’s evidence, “*extraordinary*” but “it is not *miraculous*” (*Enquiry*, p. 114n). There is an important ontological difference between extraordinary events that do not violate the laws of nature and miraculous events that do violate the laws of nature. It may be difficult, though, to distinguish these kinds of events from a first-person point of view. Hume says, unhelpfully, that an extraordinary event is “not conformable” to experience whereas a miracle is “contrary” to experience (*Enquiry*, p. 114n). It is not at all clear what Hume has in mind here. In both cases, it seems that we start with uniform experience that all observed Fs are Gs and then we hear a testimony that “*this F was not G*”. From a subjective point of view, then, there seems to be no difference in our experience, in which case there would be no difference in our evidence (van Inwagen 1998). The only way I see of saving the distinction is by again appealing to the distinction between accidentally true generalizations and laws: an extraordinary event would contravene (what appears to be) an accidentally true generalization, whereas a miracle violates (what appears to be) a law of nature. Hume then can

insist that, because these events are (or appear to be) different in kind, an extraordinary event “requires a pretty strong testimony, to render it credible” (*Enquiry*, p. 114n), whereas the testimony of a miracle should always be rejected.

I have said that, according to Hume, the testimony of a miracle should always be rejected, but there is some evidence against this interpretation. Hume articulates a “general maxim” which, basically, says that a testimony of a miracle should be accepted if and only if it is more likely to be true than false (*Enquiry*, pp. 115-116). The general maxim (by itself) leaves open the possibility that the evidence from testimony of a miracle could outweigh the evidence from uniform past experience of a law of nature (as Fogelin 2003 emphasizes). Hume even offers a case of an apparently miraculous event which he would concede occurred: “suppose all authors, in all languages, agree from the first of January, 1600, there was a total darkness over the whole earth for eight days”; in that case, there is so much (independent) evidence from testimony that it is more likely than not that the event occurred, and so, “instead of doubting the fact, [we] ought to receive it as certain” (*Enquiry*, pp. 127-128). Are we then to believe the event occurred *and* that it violated the laws of nature? Hume is not clear on this point. Although he introduces the case by saying “there may possibly be miracles...of such a kind to admit of proof from human testimony”, he ends the discussion by saying that we “ought to search for the causes” of the event and that the event might be reasonably be believed because there are “so many analogies” to other (natural) events (*Enquiry*, pp. 127, 128). If we might discover a natural cause of the event, and if the event sufficiently similar to other naturally caused events, then the eight days of darkness does not appear to be a genuine violation of the laws of nature. Yet suppose, for the sake of argument, that Hume is here giving an example of a testimony of a miracle that ought to be believed (cf. Fogelin 2003, pp. 25-26).

If Hume admits that the testimony of a miracle can rationally be believed, then what is the point of his “proof”? Perhaps his aim is to show only that any *actual* testimony of a miracle should not be believed. In that case, though, he ought to be analyzing the historical evidence, whereas he claims that as soon as we hear a testimony of a miracle (in a religious context) we can “reject it without farther examination” (*Enquiry*, p. 129). Hume leaves a helpful clue of his intentions, though, when he says, “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...[that] admit of proof”, and then he gives the eight-days-of-darkness example (*Enquiry*, p. 127, my emphasis). Hume’s thesis, then, appears to be that the testimony of a *religious* miracle should always be rejected, though the testimony of a *non-religious* miracle might reasonably be believed. Since my concern is specifically with religious miracles, I will take the “religious” qualification to be implicit unless stated otherwise.

As can be seen from the above discussion, Hume’s proof against believing in miracles places tremendous weight on the distinction between laws and accidentally true generalizations. The proof against miracles uses a law of nature as a premise, whereas a probability argument against an extraordinary event does not. Evidence from testimony can *never* outweigh the evidence of a well-attested law, but evidence from testimony *can* outweigh an accidental regularity. Furthermore, intuitively, there is a significant difference between making inferences from laws and from merely accidental regularities. However, Hume’s conception of laws cannot bear this weight. In the next section, I argue that on the Humean View laws have no more evidential weight than mere regularities. If this is right, then the fact that such-and-such is a law of nature gives us no reason to reject the testimony that a miracle occurred.

§1.3 Humean Laws and the Failure of Hume's Proof

I believe (not uncontroversially) that Hume accepts a Humean View of Laws.¹ On this kind of view, laws of nature are mere summaries of facts about particular events. Hume, for example, seems to think of laws as universal generalizations (or regularities) of a certain kind. In this section, I describe the Humean View widely (and, I think, correctly) attributed to Hume, and I argue that, on this kind of view, the laws of nature, as such, do not give us any reason for rejecting the testimony of a miracle. I take it this would be an interesting result even if Hume, ultimately, is not a Humean about laws. Moreover, I consider and reject a version of Hume's argument that adopts a Governing View of Laws, so even if Hume is not a Humean about laws his "proof" will still not succeed. I will proceed, though, as if Hume is a Humean about laws.

Hume famously argues that, so far as we can find, there is no necessary connection between a cause and an effect (*Enquiry* sect. 7). Suppose, for example, we find that in our experience that whenever one billiard ball collides with another the second billiard ball moves. Hume argues persuasively that there is no *a priori* necessary connection between the collision and the second ball moving. Further, we do not observe the necessity of a connection between them. So far as the evidence from experience and *a priori* reason goes, then, we have no evidence that there is a necessary connection between a cause and an effect. The implication seems to be that, according to Hume, we should believe that the causal relation is *not* metaphysically necessary.

Hume then argues that our concept of causation is derived from features of particular events. It is, at least in large part, the constant conjunction of events that leads us to conclude that one is the cause of the other. However, not all constantly conjoined events are causal: e.g., a man

¹ For a persuasive defense of Humean interpretation of Hume see Psillos 2002. For an excellent overview of the interpretive debate, and criticisms of the Humean interpretation, see Beebe 2006.

using birth control never gets pregnant, but the birth control does not cause him not to get pregnant. In short, there can be an accidental regularity of the form “all Fs are Gs” even when we do not want to say that F causes G. Thus, Hume needs to distinguish between genuine causes and accidental regularities. Fortunately, he can do so. Hume takes a constant conjunction to be a genuine causal relation only if the conjunction is also spatially contiguous and temporally successive (*Treatise*, pp. 75-76). More generally, on the Regularity View, an F is the cause of a G iff (i) there is a regularity such that Fs are Gs, and (ii) the regularity has some further feature X (cf. Psillos 2002, p. 141).

Hume seems to think of laws in the same way that he thinks of causation, namely as a regularity of a certain kind. As we saw above, Hume’s “proofs” are inferences from laws, which are uniform past experiences of a certain kind. Further, given what he says about causation, it is clear that he denies that the laws are metaphysically necessary; that is, he views laws as contingent regularities. Again, to be at all plausible Hume needs to distinguish laws from accidental regularities. An obvious suggestion here is that, just as with genuine causal relations, laws are regularities with distinguishing feature X, whereas accidental regularities are not. This would unify Hume’s conception of laws and causation in a plausible way (cf. Psillos 2002, pp. 137-138). In any case, it appears that, for Hume, what makes it a law of nature that Fs are Gs is some feature of a regularity.

Many theorists nowadays continue to be sympathetic with two of Hume’s motivations for adopting the Regularity View. First, as just explained, Hume is skeptical of any robust metaphysical connection between events. Any talk of a law “governing” the outcome of events seems to them to be hopelessly obscure, supported by neither reason nor observation. Second, philosophers love a good reduction, and Hume reduces laws of nature (with a potentially

mysterious ontological status) to unobjectionable facts about particular events (i.e., facts about correlation, contiguity, and succession). These motivations have continued to be attractive to theorists even if the details of the Regularity View have not.

While Hume takes facts about what *actually* happens to alone determine what the laws are, the Counterfactual View of Laws (cf. Mackie 1974; Lewis 1986) takes facts both about what *does* happen and what *would* happen in non-actual situations to determine what the laws are. Not only do unsupported objects fall to the ground, for example, but it is true that if I were to let go of this pen then it *would* fall to the ground. According to the Counterfactual View, universal gravity is a law because of both of these kinds of facts. The Counterfactual View counts as a “Humean” View because, like Hume’s Regularity Theory, it denies that laws govern the outcome of particular events and it reduces laws to facts about particular events (though, on this view, the facts are about both what is actual and what would happen in non-actual cases).

In my judgment, Hume’s proof against believing in miracles is plausible (though still unsuccessful) only on the Governing View of Laws. Suppose it is a law that Fs are Gs and yet someone tells us, “Hey, I saw this F that was not G!”. On the Governing View, it is *because* of the law that Fs are Gs, so the very fact that this is a law gives us a reason to doubt the veracity of the testimony. But this line of argument falls apart on the Humean View. On this kind of view, it is *not* the case that any F is G *because* of the law; the law does not *make* any particular F a G. So then why would the law give us any reason to reject the claim that “*this* F was not G”?

The fundamental problem for Hume’s proof, on a Humean View of Laws, is that, since a law is merely a summary of facts about particular cases, Hume cannot appeal to a law as evidence against a miracle without begging the question. The sentence “it is a law that Fs are Gs” merely summarizes the fact that *a* is F and G, *b* is F and G, and so forth. Now consider a

particular (for us) unobserved *c* that was F. Hume could assume the facts about *c* are such that *c* was G, and on this basis reject the testimony that *c* was F and not-G. But then his proof against miracles will begin with the assumption that the miracle did not occur, and hence the proof would just beg the question. I take it that this is not Hume's argument. His aim is to take the observed instances of the law and use that to make an inference to the (for us) unobserved case. What he needs, then, is some fact *about other cases* that would lead us to believe that *c*, which is F, is also G. On the Humean View, though, every event is independent of every other event: there is nothing about *a*'s being F and G or *b*'s being F and G, *et cetera*, that would therefore make it the case that *c*, which is F, is also G. For this reason, the observed instances of the law do not tell us whether this (for us) unobserved case conformed with the laws of nature or not, and so Hume has failed to identify decisive evidence that the miracle did not occur.

The problem can be stated as a dilemma. We can either assume that the facts about a particular case are such that there would be a violation of the laws of nature or not. If we assume at the outset that there would be no such violation, then Hume's proof is circular. But if we do not make this assumption, then we cannot use the law as a means for inferring that there would be no miracle in that case. For there is nothing about the law (other than the facts about that particular case) that make it so that the miracle would not occur. So, we cannot, without circularity, use the law as a means to inferring that there would be no miracle in a given case. Thus, Hume's proof, understood in this way, fails.

It might be argued that a law, as a kind of correlation, allows us to make inferences to unobserved cases. Correlations are *predictive* even if they are not causal. So, goes this line of argument, we can use the law to *predict* that an unobserved F is G without assuming that this unobserved F is G *because* of the law. However, if the sole basis for the inference is an observed

correlation, then this is merely a “probability argument” and not a “proof”. Hume concedes, in the Indian Prince example, that uniform past experience is by itself insufficient for a decisive proof; in addition to being a correlation, the observed regularity must be a law of nature. In the current proposal, however, the basis for the inference is exhausted by its being an observed correlation. Therefore, the status of a regularity *as a law* does not give us any reason (above and beyond its being a correlation) for making an inference to a particular unobserved case (and as a correlation it is merely a “probability argument”). The point here is *not* that, given Hume’s theory of laws, we cannot make inductive inferences. Rather, on this proposal, even if we assume that nature is uniform, a regularity’s status *as a law* does not give us any additional evidence (beyond being a correlation) that a miracle did not occur.

The intuitive appeal of Hume’s argument is that a miracle is a *violation of the laws of nature* and by the very nature of that fact we have reason to doubt that it occurred. But the argument loses its punch once we realize that, on Hume’s view, it is NOT *because* it is a violation of a law of nature that the miracle did not occur. There is nothing about being a law that would prevent a miracle from occurring. And insofar as we are merely projecting from an observed correlation in past instances, there is nothing about being a law that gives us a reason to doubt that the miracle would occur. In short, on the Humean View, the fact that such-and-such is a law of nature does not give us *any reason* to believe that a (for us unobserved) miracle did not occur.

The combination of a Humean conception of laws and Hume’s proof against believing in miracles is untenable. There are, though, two nearby (and much more plausible) alternatives. One alternative is to accept the Humean conception of laws and then concede that the fact that such-and-such is a law of nature may provide evidence, *though not decisive evidence*, that a

miracle did not occur. Perhaps when push comes to shove that is what Hume, all-things-considered, would say (cf. Fogelin 2003). Another alternative, which I think explains the enduring appeal of Hume's proof against miracles, is to accept a governing conception of laws and then insist that laws in this sense provide decisive evidence against miracles. If Hume's "proof" against miracles is to be saved, then it needs to be done with a governing conception of laws. I turn now, then, to that argument.

PART 2: GOVERNING-LAWS AND MIRACLES

§2.1 The Governing-Laws Version of Hume's Proof

On the Governing View of Laws, events occur *because* of the laws of nature. The law that Fs are Gs is what makes it the case that a particular F is G. In this case, the law does provide a reason for thinking that a particular (for us) unobserved F is G. Thus governing-laws are projectable in a way that Humean-laws are not. There is something about being a law that gives us reason to believe that a particular case was not an exception. Intuitively, then, on this line of argument the fact that a miracle would violate the laws of nature gives us some reason to reject the testimony that a miracle has occurred.

One nice feature of the Governing View is that it can easily distinguish between laws of nature and accidental regularities. Accidental regularities are those that just happen to be the case; it is a mere summary of what has in fact happened. By contrast, on this view, a law is something over and above a series of events; it is the thing that *makes* the events occur the way they do. Consider, for example, these two facts: (i) universal gravitation is a law of nature; and (ii) particular objects, when unsuspected in the air, fall to the ground. On the governing view of laws, these two facts are not identical; the law is something over and above the regularity and, in

fact, the regularity occurs *because* of the law. Thus, laws are fundamentally different from accidental regularities.

Governing laws can support counterfactual inferences in a way that the Humean View cannot (Armstrong 1983, pp. 49-50; Mumford 2004). According to the Regularity View, laws summarize only what *actually* happens, and so does *not* tell us about what *would* happen in counterfactual situations. For example, the law of gravity, on this view, tells us that actual objects that are unsupported in the air have, historically, fallen to the ground. But this summary does not include facts about what did *not* actually happen: if I am holding a pen in the air and never actually let go, the law of gravity does not tell us whether the pen *would* have fallen to the ground. The Counterfactual View does include facts about what *would* happen in non-actual cases, but these facts about particular cases are assumed at the outset and so cannot be the basis for making inferences to particular cases (that would be circular). By contrast, on the Governing View, an object falls *because* of gravity. So, because of this law, even if I never actually drop the pen, it nonetheless remains true that it *would* have fallen had I let it go. For this reason, governing laws are projectable: we can use the laws to infer what would be happen in counterfactual situations.

For similar reasons, governing-laws are also projectable to unobserved cases. Suppose we see my hand let go of the pen but that, for some reason (e.g., the lights go out), we do not see what happens next. Just as we can infer that, given gravity, the pen *would* fall, we can for the same reasons infer that the pen *did* fall even though we did not see it. The pen fell *because* this follows from the law of gravity. The point here is that, on the Governing View, the laws provide a basis for inferring what actually happened in (for us) an unobserved case.

Further, we can have the utmost confidence when making inferences from a governing-law to a particular case. Consider, for example, how likely it is that, in the case described above, the pen fell to the ground. Perhaps some doubt could creep in if we were not sure whether the pen had been tied with fishing line to the ceiling or whether a sudden gust of wind pushed the pen upward. But set these and similar outlandish possibilities to the side. Suppose we know it is a regular pen and nothing funny is going on. In that case, how confident can we be that the pen fell to the ground? *Extremely confident*. *Maximally confident* (if there is such a thing). On the Governing View of Laws, short of a miracle, the pen *must* fall. This way of thinking about laws substantiates Hume's claim that a "proof" is a distinctive kind of inference: a law of nature does not merely make it *likely* that, given certain conditions, an unobserved event occurred; the law is *decisive evidence* that, given certain conditions, the event occurred.

Now reconsider Hume's proof against believing in miracles. Suppose our past uniform experience in which observed Fs have all been Gs, along with other considerations, gives us good reason to believe that it is a law of nature that Fs are Gs. Someone then tells us, "Hey, I saw an F that is *not* a G!" In this case, we are strongly inclined to reject the person's testimony. If the thing the person was describing really were an F then, given the law that Fs are Gs, that F would have been G. So, goes the argument, the fact that a miracle is a violation of the laws of nature is, "from the very nature of the fact" (*Enquiry*, p. 114), decisive evidence that the miracle did not actually occur.

Unlike the Humean version of the argument, the governing-law version of Hume's proof is quite plausible. Nonetheless, there is, I think, a fatal flaw.

§2.2 Governing-Laws and the Failure of Hume's Proof

Insofar as Hume's argument succeeds, it is because governing laws are projectable to unobserved cases. The fact that the law that Fs are Gs makes it the case that particular Fs are Gs allows us to infer that, in some (for us) unobserved case, F was G. This much should be granted to Hume's argument: absent any reason for believing that there was divine intervention, we should not believe that the laws of nature are ever violated. But, I suggest, laws are *not* projectable in a case where there is good reason to believe God intervened. In other words, if we have good reason for thinking that there was divine intervention, the fact that the miracle would violate the laws of nature does not give us any reason to believe that it did not actually happen.

God *could* (if he exists) violate the laws of nature. The fact that a miracle is a violation of the laws of nature, in other words, would not stop God from making such an event occur. If God had some reason for violating the laws of nature, then he would do so. But notice, then, that we cannot appeal to the fact that such-and-such is a law of nature to conclude that a miracle did not occur on a given occasion.

Hume's argument against miracles fails because the laws of nature are not projectable to *putative cases of divine intervention*. Normally, the fact that it is a law that F is G gives us reason to believe that some (for us) unobserved F was G. But suppose we have independent reason for thinking that God had good reasons for performing a miracle on a specific occasion. That the event would violate the laws of nature does not give us any reason at all for thinking the event would not occur: if God wanted to make it happen, it would happen; further, we are assuming we have reason to believe that God wanted the laws to be violated on a given occasion.

Above, we saw that Hume distinguishes religious and non-religious miracles, and his claim is that the testimony of a religious miracle never ought to be believed though (perhaps) a

testimony of a non-religious miracle might rationally be believed. My position is basically the inverse of Hume's. On the Governing View, a non-religious miracle ought never to be believed since (absent reason to believe there was divine intervention) the laws of nature provide decisive evidence against the testimony that a violation of the laws of nature occurred: such an event is not even possible, without the help of God. Yet the fact that the event violates the laws of nature would not stop God from making the event occur, and so if we have independent reason for believing that God would intervene in a given case then the fact the event would violate the law does not, as such, give us any reason at all for rejecting the testimony of a miracle.

Locke (*Essay* 4.15.4) and Hume (*Enquiry*, sect. 10, part 2) both cite reasons other than conformity with past experience as possible reasons for doubting testimony, and these are all relevant to the evaluation of the testimony of miracles. Perhaps there are conflicting reports, or the person stands to gain financially or otherwise by our believing the testimony, and so forth. These considerations may well be grounds for rejecting the testimony of a miracle on a case-by-case basis. But there is no guarantee that a testimony of a miracle will *always* be subject to rejection on these grounds. Furthermore, and this is the main point, it is not because a miracle is a violation of the laws of nature that it ought to be rejected.

§2.3 Conclusion

Regardless of whether we adopt the Humean View or the Governing View of laws, the fact that a miracle is a violation of the laws of nature does *not* give us any reason to doubt the testimony that a miracle has occurred. Hume's "proof", then, fails to provide decisive evidence against believing the testimony of miracles.

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