

Richard Swinburne. For the Possibility of Miracles

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In this article I wish to investigate whether there could be strong historical evidence for the occurrence of miracles, and contrary to much writing which has derived from Hume's celebrated chapter "Of Miracles," I shall argue that there could be. I understand by a miracle a violation of a law of Nature by a god, that is, a very powerful rational being who is not a material object (viz., is invisible and intangible). My definition of a miracle is thus approximately the same as Hume's: "a transgression of a law of nature by a particular volition of the Deity or by the interposition of some invisible agent."¹ It has been questioned by many biblical scholars whether this is what the biblical writers understood by the terms translated into English 'miracle'. I do not propose to enter into this controversy. Suffice it to say that many subsequent Christian theologians have understood by 'miracle' roughly what I understand by the term and that much medieval and modern apologetic which appeals to purported miracles as evidence of the truth of the Christian revelation has had a similar understanding of miracle to mine.

I shall take the question in two parts. I shall enquire first whether there could be evidence that a law of nature has been violated, and secondly, if there can be such evidence, whether there could be evidence that the violation was due to a god.

First, then, can there be evidence that a law of nature has been violated? It seems natural to understand, as Ninian Smart does, by a violation of a law of nature, an occurrence of a non-repeatable counter-instance to a law of nature.² Clearly, as Hume admitted, events contrary to predictions of formulae which we had good reason to believe to be laws of nature often occur. But if we have good reason to believe that they have occurred and good reason to believe that similar events would occur in similar circumstances, then we have good reason to believe that the formulae which we previously believed to be the laws of nature were not in fact such laws. Repeatable counter-instances do not violate laws of nature, they just show propositions purporting to state laws of nature to be false.

But if we have good reason to believe that an event E has occurred contrary to predictions of a formula L which we have good reason to believe to be a law of nature, and we have good reason to believe that events similar to E would not occur in circumstances as similar as we like in any respect to those of the original occurrence, then we do not have reason to believe that L is not a law of nature.

For any modified formula which allowed us to predict E would allow us to predict similar events in similar circumstances and hence, we have good reason to believe, would give false predictions.

Whereas if we leave the formula L unmodified, it will, we have good reason to believe, give correct predictions in all other conceivable circumstances. Hence if we are to say that any law of nature is

¹ David Hume, *An Enquiry Concerning Human Understanding*, ed. L. A. Selby-Bigge (Oxford 1902) 115, footnote.

² Ninian Smart, *Philosophers and Religious Truth* (London 1964) Chapter 2.

operative in the field in question we must say that it is L . This seems a natural thing to say rather than to say that no law of nature operates in the field. Yet E is contrary to the predictions of L . Hence, for want of a better expression, we say that E has violated the law of nature L . If the use of the word 'violated' suggests too close an analogy between laws of nature and civil or moral laws, that is unfortunate. Once we have explained, as above, what is meant by a violation of a law of nature, no subsequent confusion need arise.

The crucial question, not adequately discussed by Smart, however, is what would be good reason for believing that an event E , if it occurred, was a non-repeatable as opposed to a repeatable counter instance to a formula L which we have on all other evidence good reason to believe to be a law of nature. The evidence that E is a repeatable counter-instance would be that a new formula L' fairly well confirmed by the data as a law of nature can be set up. A formula is confirmed by data, if the data obtained so far are predicted by the formula, if new predictions are successful and if the formula is a simple and coherent one relative to the collection of data.

Compatible with any finite set of data, there will always be an infinite number of possible formulae from which the data can be predicted. We can rule out many by further tests, but however many tests we make we shall still have only a finite number of data and hence an infinite number of formulae compatible with them.

But some of these formulae will be highly complex relative to the data, so that no scientist would consider that the data were evidence that those formulae were true laws of nature. Others are very simple formulae such that the data can be said to provide evidence that they are true laws of nature.

Thus suppose the scientist's task is to find a formula accounting for marks on a graph, observed at (1, 1), (2, 2), (3, 3), and (4, 4), the first number of each pair being the x co-ordinate and the second the y co-ordinate.

One formula which would predict these marks is $x = y$. Another one is $(x - 1)(x - 2)(x - 3)(x - 4) + x = y$. But clearly we would not regard the data as supporting the second formula. It is too clumsy a formula to explain four observations. Among simple formulae supported by the data, the simplest is the best supported and regarded, provisionally, as correct. If the formula survives further tests, that increases the evidence in its favor as a true law.

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 $L1$ 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 .

Here is an example. Suppose E to be the levitation (viz., rising into the air and remaining floating on it) of a certain holy person. E is a counter-instance to otherwise well substantiated laws of mechanics L . We could show E to be a repeatable counter- instance if we could construct a formula L' which predicted E and also successfully predicted other divergences from L , as well as all other tested predictions of L ; or if we could construct L' which was comparatively simple relative to the data and predicted E and all the other tested predictions of L , but predicted divergences from L which had not yet been tested. L' might differ from L in that, according to it, under certain circumstances bodies exercise a gravitational repulsion on each other, and the circumstance in which E occurred was one of those circumstances. If L' satisfied either of the above two conditions, we would adopt it, and we would then say that under certain circumstances people do levitate and so E was not a counter-instance to a law of nature. However, it might be that any modification which we made to the laws of mechanics to allow them to predict E might not yield any more successful predictions than L and they be so clumsy that there was no reason to believe that their predictions not yet tested would be successful. Under these circumstances we would have good reasons to believe that the levitation of the holy person violated the laws of nature.

If the laws of nature are statistical and not deterministic, it is not in all cases so clear what counts as a counter-instance to them. How improbable does an event have to be to constitute a counter instance to a statistical law? But this problem is a general one in the philosophy of science and does not raise any issues peculiar to the topic of miracles.

It is clear that all claims about what does or does not violate the laws of nature are corrigible. New scientific knowledge may force us to revise any such claims. But all claims to knowledge about matters of fact are corrigible, and we must reach provisional conclusions about them on the evidence available to us. We have to some extent good evidence about what are the laws of nature, and some of them are so well established and account for so many data that any modifications to them which we could suggest to account for the odd counter-instance would be so clumsy and ad hoc as to upset the whole structure of science. In such cases the evidence is strong that if the purported counter-instance occurred it was a violation of the laws of nature. There is good reason to believe that the following events, if they occurred, would be violations of the laws of nature: levitation; resurrection from the dead in full health of a man whose heart has not been beating for twenty-four hours and who was, by other criteria also, dead; water turning into wine without the assistance of chemical apparatus or catalysts; a man getting better from polio in a minute.

So then we could have the evidence that an event E if it occurred was a non-repeatable counter-instance to a true law of nature L . But Hume's argument here runs as follows. The evidence, which ex hypothesis is good evidence, that L is a true law of nature is evidence that E did not occur. We have certain other evidence that E did occur. In such circumstances, writes Hume, the wise man "weighs the opposite experiments. He considers which side is supported by the greater number of experiments."³ Since he supposes that the evidence that E occurred would be that of testimony, Hume concludes "that no testimony is sufficient to establish a miracle, unless the testimony be of such a kind, that its falsehood would be more miraculous, than the fact which it endeavors to establish."⁴ He considers that this condition is not in fact satisfied by any purported miracle, though he seems at times to allow that it is logically possible that it might be.

One wonders here at Hume's scale of evidence. Suppose two hundred witnesses claiming to have observed some event E , an event which, if it occurred, would be a non-repeatable counter-instance to a law of nature. Suppose these to be witnesses able and anxious to show that E did not occur if there were grounds for doing so. Would not their combined evidence give us good reason to believe that E occurred? Hume's answer which we can see from his discussion of two apparently equally well authenticated miracles is-No. But then, one is inclined to say, is not Hume just being bigoted, refusing to face facts? It would be virtually impossible to draw up a table showing how many witnesses and of what kind we need to establish the occurrence of an event which, if it occurred, would be a non repeatable counter-instance to a law of nature. Each purported instance has to be considered on its merits. But certainly one feels that Hume's standards of evidence are too high. What, one wonders, would Hume himself say if he saw such an event?

But behind Hume's excessively stringent demands on evidence there may be a philosophical point which he has not fully brought out. This is a point made by Flew in justification of Hume's standards of evidence: "The justification for giving the 'scientific' this ultimate precedence here over the 'historical' lies in the nature of the propositions concerned and in the evidence which can be displayed to sustain them...the candidate historical proposition will be particular, often singular, and in the past tense.... But just by reason of this very pastness and particularity it is no longer possible for anyone to examine the subject directly for himself. . . the law of nature will, unlike the candidate historical proposition, be a general nomological. It can thus in theory, though obviously not always in practice, be tested at any time by any person."⁵

Flew's contrast is, however, mistaken. Particular experiments on particular occasions only give a certain and far from conclusive support to claims that a purported scientific law is true. Any person can test for the truth of a purported scientific law, but a positive result to one test will only give limited support to the claim. Exactly the same holds for purported historical truths. Anyone can examine the evidence, but a particular piece of evidence only gives limited support to the claim that the historical proposition is true. But in the historical as in the scientific case, there is no limit to the amount of evidence. We can go

³ Hume 111.

⁴ Hume 116.

⁵ Antony Flew, *Hume's Philosophy of Belief* (London 1961) 207 ff.

on and on testing for the truth of historical as well as scientific propositions. We can look for more and more data which can only be explained as effects of some specified past event, and data incompatible with its occurrence, just as we can look for more and more data for or against the truth of some physical law. Hence the truth of the historical proposition can also "be tested at any time by any person."

What Hume seems to suppose is that the only evidence about whether an event E happened is the written or verbal testimony of those who would have been in a position to witness it, had it occurred. And as there will be only a finite number of such pieces of testimony, the evidence about whether or not E happened would be finite. But this is not the only testimony which is relevant—we need testimony about the character, mind, and competence of the original witnesses. Nor is testimony the only type of evidence. All L effects of what happened at the time of the alleged occurrence of E are also relevant. Far more than in Hume's day we are today often in a position to assess what occurred by studying the physical traces of the event. Hume had never met Sherlock Holmes with his ability to assess what happened in the room from the way in which the furniture lay, or where the witness was yesterday from the mud on his boot. As the effects of what happened at the time of the occurrence of E are always with us in some form, we can always go on examining them yet more carefully. Further, we need to investigate whether E , if it did occur, would in fact have brought about the present effects, and whether any other cause could have brought about just these effects. To investigate these issues involves investigating which scientific laws operate (other than the law L of which it is claimed that E was a violation), and this involves doing experiments ad lib. Hence there is no end to the amount of new evidence which can be had. The evidence that the event E occurred can go on mounting up in the way that evidence that L is a law of nature can do. The wise man in these circumstances will surely say that he has good reason to believe that E occurred, but also that L is a true law of nature and so that E was a violation of it.

So we could have good reason to believe that a law of nature has been violated. But for a violation of a law of nature to be a miracle, it has to be caused by a god, that is, a very powerful rational being who is not a material object. What could be evidence that it was?

To explain an event as brought about by a rational agent with intentions and purposes is to give an entirely different kind of explanation of its occurrence from an explanation by scientific laws acting on precedent causes. Our normal grounds for attributing an event to the agency of an embodied rational agent A is that we or others perceived A bringing it about or that it is the sort of event that A typically brings about and that A , and no one else of whom we have knowledge, was in a position to bring it about. The second kind of ground is only applicable when we have prior knowledge of the existence of A . In considering evidence for a violation E of a law of nature being due to the agency of a god, I will distinguish two cases, one where we have good reason on grounds other than the occurrence of violations of laws of nature to believe that there exists at least one god, and one where we do not.

Let us take the second case first. Suppose we have no other good reason for believing that a god exists, but an event E then occurs which, our evidence indicates, is a non-repeatable counter-instance to a true law of nature. Now we cannot attribute E to the agency of a god by seeing the god's body bring E about, for gods do not have bodies. But suppose that E occurs in ways and circumstances C strongly analogous

to those in which occur events brought about by human agents, and that other violations occur in such circumstances. We would then be justified in claiming that *E* and other such violations are, like effects of human actions, brought about by agents, but ones unlike men in not being material objects. This inference would be justified because, if an analogy between effects is strong enough, we are always justified in postulating slight difference in causes to account for slight difference in effects.

Thus if because of its other observable behavior we say that light is a disturbance in a medium, then the fact that the medium, if it exists, does not, like other media, slow down material bodies passing through it, is not by itself (viz., if there are no other disanalogies) a reason for saying that the light is not a disturbance in a medium, but only for saying that the medium in which light is a disturbance has the peculiar property of not resisting the passage of material bodies. So if, because of very strong similarity between the ways and circumstances of the occurrence of *E* and other violations of laws of nature to the ways and circumstances in which effects are produced by human agents, we postulate a similar cause—a rational agent, the fact that there are certain disanalogies (viz., we cannot point to the agent, say where his body is) does not mean that our explanation is wrong. It only means that the agent is unlike humans in not having a body. But this move is only justified if the similarities are otherwise strong. Nineteenth-century scientists eventually concluded that for light the similarities were not strong enough to outweigh the dissimilarities and justify postulating the medium with the peculiar property.

Now what similarities in the ways and circumstances *C* of their occurrence could there be between *E* (and other violations of laws of nature) and the effects of human actions to justify the postulation of similar causes? Suppose that *E* occurred in answer to a request. Thus *E* might be an explosion in my room, totally inexplicable by the laws of nature, when at the time of its occurrence there were in a room on the other side of the corridor men in turbans chanting "O God of the Sikhs, may there be an explosion in Swinburne's room." Suppose, too, that when *E* occurs a voice, but not the voice of an embodied agent, is heard giving reasonable reasons for granting the request. When the explosion occurs in my room, a voice emanating from no man or animal or man-made machine is heard saying "Your request is granted. He deserves a lesson." Would not all this be good reason for postulating a rational agent other than a material object who brought about *E* and the other violations, an agent powerful enough to change instantaneously by intervention the properties of things, viz., a god? Clearly if the analogy were strong enough between the ways and circumstances in which violations of laws of nature and effects of human action occur, it would be. If furthermore the prayers which were answered by miracles were prayers for certain kinds of events (e.g., relief of suffering, punishment of ill-doers) and those which were not answered by miracles were for events of different kinds, then this would show something about the character of the god. Normally, of course, the evidence adduced by theists for the occurrence of miracles is not as strong as I have indicated that very strong evidence would be. Violations are often reported as occurring subsequent to prayer for them to occur, and seldom otherwise; but voices giving reason for answering such a request are rare indeed. Whether in cases where voices are not heard but the occurrence of a violation *E* and of prayer for its occurrence were both well confirmed, we would be justified in concluding that the existence of a god who brought *E* about is a matter of whether the analogy is strong enough as it stands. The question of exactly when an analogy is strong

enough to justify an inference based on it is a difficult one. But my only point here is that if the analogy were strong enough, the inference would be justified.

Suppose now that we have other evidence for the existence of a god. Then if *E* occurs in the circumstances *C*, previously described, that *E* is due to the activity of a god is more adequately substantiated, and the occurrence of *E* gives further support to the evidence for the existence of a god. But if we already have reason to believe in the existence of a god, the occurrence of *E* not under circumstances as similar as *C* to those under which human agents often bring about results, could nevertheless sometimes be justifiably attributed to his activity. Thus, if the occurrence of *E* is the sort of thing that the only god of whose existence we have evidence would wish to bring about if he has the character suggested by the other evidence for his existence, we can reasonably hold him responsible for the occurrence of *E* which would otherwise be unexplained. The healing of a faithful blind Christian contrary to the laws of nature could reasonably be attributed to the God of the Christians, if there were other evidence for his existence, whether or not the blind man or other Christians had ever prayed for that result.

For these reasons I conclude that we can have good reason to believe that a violation of a law of nature was caused by a god, and so was a miracle. I would like to make two final points, one to tidy up the argument and the other to meet a further argument put forward by Hume which I have not previously discussed.

Entia non sunt multiplicanda praeter necessitatem. -- Unless we have good reason to do so we ought not to postulate the existence of more than one god, but to suppose that the same being answers all prayers. But there could be good reason to postulate the existence of more than one god, and evidence to this effect could be provided by miracles. One way in which this could happen is that prayers for a certain kind of result, for example, shipwreck, which began "O. Neptune" were often answered, and also prayers for a different kind of result, for example, success in love, which began "O. Venus" were also often answered, but prayers for a result of the first kind beginning "O. Venus," and for a result of the second kind beginning "O. Neptune" were never answered. Evidence for the existence of one god would in general support, not oppose, evidence for the existence of a second one since, by suggesting that there is one rational being other than those whom we can see, it makes more reasonable the postulation of another one.

The second point is that there is no reason at all to suppose that Hume is in general right to claim that "every miracle . . . pretended to have been wrought in any . . . (religion) . . . as its direct scope is to establish the particular system to which it is attributed; so has it the same force, though more indirectly, to overthrow every other system. In destroying a rival system it likewise destroys the credit of those miracles on which that system was established."⁶ If Hume were right to claim that evidence for the miracles of one religion was evidence against the miracles of any other, then indeed evidence for miracles in each would be poor. But in fact evidence for a miracle "wrought in one religion" is only evidence against the occurrence of a miracle "wrought in another religion" if the two miracles, if they

⁶ Hume 121-122.

occurred, would be evidence for propositions of the two religious systems incompatible with each other. It is hard to think of pairs of alleged miracles of this type. If there were evidence for a Roman Catholic miracle which was evidence for the doctrine of transubstantiation and evidence for a Protestant miracle which was evidence against it, here we would have a case of the conflict of evidence which, Hume claims, occurs generally with alleged miracles. But it is enough to give this example to see that most alleged miracles do not give rise to conflicts of this kind. Most alleged miracles, if they occurred, would only show the power of god or gods and their concern for the needs of men, and little else.

My main conclusion, to repeat it, is that there are no logical difficulties in supposing that there could be strong historical evidence for the occurrence of miracles. Whether there is such evidence is, of course, another matter.