

Without Miracles

Appendix: The Trouble With Miracles

Throughout this book miraculous accounts of the origin of adaptive complexity were discounted and natural, scientific ones advocated in their stead. But what exactly is the problem with miracles? Why should miracles and miraculous explanations be rejected in science in favor of nonmiraculous ones?

First, we have to define what we mean by *miracle*. In everyday usage, there seem to be two meanings. The first refers to an event that is considered to have a very low probability of occurrence, but that happens nonetheless. A man and his wife both winning the grand prize of a state lottery on successive weeks might be considered such an event. But, of course, there is really nothing miraculous about such happenings, since they are possible and their rarity is consistent with their low probability. We have also seen how the process of cumulative variation and selection can dramatically increase the probability of adaptive evolutionary change that would be highly unlikely to emerge in a single step.

The second meaning of *miracle* has to do with events that violate the laws of nature. As defined by the *Oxford English Dictionary* a miracle is

a marvelous event occurring within human experience, which cannot have been brought about by human power or by the operation of any natural agency, and must therefore be ascribed to the special intervention of the Deity or of some supernatural being; chiefly, an act (e.g. of healing) exhibiting control over the laws of nature, and serving as evidence that the agent is either divine or is specially favoured by God.

Abraham Lincoln coming back to life and walking the streets of Springfield, Illinois, would be such an event. So would the creation of all the earth's plants and animals in a single day. Such events are thought to be the work of God or some other powerful supernatural entity that has the power to circumvent the usual laws of nature.

The ever-skeptical Scottish philosopher David Hume, whose critique of induction was presented in chapter 6, also offered a critique of miracles, or rather, belief in miracles, in his *Enquiries Concerning Human Understanding* published in 1748. His reasoning on this subject involved two arguments. The first was that it was rational to believe that a miracle had occurred only if the evidence that it had occurred was stronger than the evidence that it had not. As Hume put it:

The plain consequence is "That no testimony is sufficient to establish a miracle, unless the testimony be of such a kind, that its falsehood would be more miraculous, than the fact, which it endeavours to establish; and even in that case there is a mutual destruction of arguments, and the superior only gives us an assurance suitable to that degree of force, which remains, after deducting the inferior."

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To give an example, imagine that an old and trustworthy friend from Springfield told you that yesterday she saw the sixteenth president of the United States walking the streets of his hometown. Now, this would appear to be an event in flagrant violation of the laws of nature as we understand them. Hume would advise you to consider which would be more miraculous--Abraham Lincoln coming back to life, or your friend being either mistaken or

deceitful--and accordingly believe the less miraculous. In this case, it would be rational to believe in Lincoln's resurrection only if it would be more of a miracle that your friend could have either been mistaken or deceitful in making her report.

The second part of Hume's argument consists of four reasons why in actual practice there could never be compelling evidence for a miracle, even though evidence for one could exist *in principle* that outweighed the evidence against it. Only one of these reasons will be mentioned here, that having to do with the unreliability of human reports of miraculous events:

. . . there is not to be found, in all history, any miracle attested by a sufficient number of men, of such unquestioned good sense, education, and learning, as to secure us against all delusion in themselves; of such undoubted integrity, as to place them beyond all suspicion of any design to deceive others; of such credit and reputation in the eyes of mankind, as to have a great deal to lose in case of their being detected in any falsehood; and at the same time, attesting facts performed in such a public manner and in so celebrated a part of the world, as to render the detection unavoidable: All which circumstances are requisite to give us full assurance in the testimony of men.

[2]

In other words, Hume insists that you simply cannot trust the testimony of your friend from Springfield, at least not when reporting a miracle, since it is always more likely that her testimony is unreliable. And such is the case not only for your friend but for any individual or group of individuals providing an account of any miraculous event.

It should be made clear that Hume does not discount the possibility that miracles may have in fact occurred, but only that it is never rational to believe that one has occurred. Neither does anything in his argument suggest that we might not be happier if we did believe in miracles, such as that the world and everything in it were made by a benevolent creator who continues to provide for our welfare. But a stubborn belief in miraculous accounts of events for which we have nonmiraculous accounts is inconsistent with the scientific enterprise that involves the continual search for the simplest and most parsimonious explanations of the goings-on of the universe.

It is of interest that Charles Darwin, certainly no philosopher, expressed very much the same conclusion as Hume in his autobiography where he recounts his gradual loss of Christian faith:

By further reflecting that the clearest evidence would be requisite to make any sane man believe in the miracles by which Christianity is supported,--that the more we know of the fixed laws of nature the more incredible do miracles become,--that the men at that time were ignorant and credulous to a degree almost incomprehensible by us,--that the Gospels cannot be proved to have been written simultaneously with the events,--that they differ in many important details, far too important as it seemed to me to be admitted as the usual inaccuracies of eyewitnesses;--by such reflections as these, which I give not the least novelty or value, but as they influenced me, I gradually came to disbelieve in Christianity as a divine revelation. The fact that many false religions have spread over large portions of the earth like wildfire had some weight with me. Beautiful as is the morality of the New Testament, it can hardly be denied that its perfection depends in part on the interpretation which we now put on metaphors and allegories.[3]

To the remote desert dweller witnessing the effects of refrigeration for the first time, seeing water turn into a solid may indeed appear to be a miracle, a remarkable violation of a very basic law of nature (that water is always

fluid), which could only have been accomplished by a supernatural power. But science has a different view, since scientific progress would cease if it proposed and retained theories that could at any time be violated by miracles, instead of proposing theories and then rejecting them (and replacing them with better ones) when their predictions are in error, or when more powerful and parsimonious theories are generated.

This is why, in our scientific endeavor to make sense of the emergence of adapted complexity, we have no choice but to be rational and seek nonmiraculous explanations of the type that universal selection theory provides.

[1]Hume (1748/1952, p. 491).

[2]Hume (1748/1952, p. 491).

[3]Darwin (1887/1959, pp. 86).