

I believe in one God, the Father almighty, maker of heaven and earth, of all things visible and invisible.

I believe in one Lord Jesus Christ, the Only Begotten Son of God, born of the Father before all ages. God from God, Light from Light, true God from true God, begotten, not made, consubstantial with the Father; through him all things were made. For us men and for our salvation he came down from heaven, and by the Holy Spirit was incarnate of the Virgin Mary, and became man. For our sake he was crucified under Pontius Pilate, he suffered death and was buried, and rose again on the third day in accordance with the Scriptores. He ascended into heaven and is seated at the right hand of the Father. He will come again in glory to judge the living and the dead and his kingdom will have no end.

I believe in the Holy Spirit, the Lord, the giver of life, who proceeds from the Father and the Son, who with the Father and the Son is adored and glorified, who has spoken through the prophets.

I believe in one, holy, catholic and apostolic Church.
I confess one Baptism for the forgiveness of sins
and I look forward to the resurrection of the
dead and the life of the world to come.

Last time we were discussing the Incarnation, and in particular the question of how one might acquire sufficient evidence for it to be rational to believe that a human being, Jesus of Nazareth, is God.

One answer to that question relies on the 'mad, bad, or God' argument that we find in C. S. Lewis. But another, more straightforward answer to this question is that we know that Jesus was God on the basis of the miracles Jesus performed while on earth.

Well, how are we supposed to know that Jesus performed miracles on earth? Pretty clearly, the answer is: on the basis of testimony.

In the reading for today, Hume argues that this is not possible; Hume's central claim is that we cannot be justified in believing in God on the basis of testimony about miracles.

But before evaluating Hume's argument, we should try to get a handle on why someone might think that miracles do provide evidence for divinity of Jesus. How might one argue for the existence of God on the basis of miracles? The following rather straightforward argument suggests itself:

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- 1. Jesus performed miracles.
- 2. If Jesus performed miracles, then Jesus was God.
- C. Jesus was God.

Obviously, the argument is valid, so the only question is whether the premises are true. Hume's argument focuses on the question of whether we have any good reason to believe premise (1). But let's focus first on premise (2). What, exactly, is a miracle?

According to Hume, a "miracle is a violation of the laws of nature."

This might seem puzzling. After all, aren't laws of nature supposed to be universal **exceptionless** claims? (If we find an exception to a supposed law of nature, it seems that the right response is to say that what we thought was a law of nature in fact is not.) And if this is what laws of nature are, isn't the idea of a miracle just a contradiction? This seems to be a very quick and easy argument against the possibility of miracles.

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But it is not a very impressive argument. Believers in miracles take there to be moments in history at which God suspends the usual natural order. But because this suspension of the natural order has a supernatural cause, it is natural to think that it is not simply a counterexample to the relevant laws of nature, but rather an exception which, because of the kind of exception it is, does not falsify the law in question for cases in which there is no supernatural intervention.

Aquinas gives a definition of a miracle which is, for our purposes, more useful. According to Aquinas,

"those things are properly called miracles which are done by divine agency beyond the order commonly observed in nature."

This is a good a definition of "miracle" as any, and we will take this to define the term for our purposes.

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If this is the definition of "miracle", then premise (2) of our argument is trivially true. The remaining questions are: is premise (1) true? and, Do we have any good reason to believe that it is true?

How could we know that premise (1) is true?

Perhaps one could know that (1) is true by witnessing a miraculous event. But let's assume for now that none of us have ever actually witnessed a miracle. Then it seems that our only evidence for (1) is the testimony of people that do claim to have actually witnessed a miracle. So, it seems that to see whether we have good reason for believing (1), we have to figure out when we are justified in believing something on the basis of testimony.

This is one of the central topics addressed by Hume. Here's what he has to say about it:

"we may observe, that there is no species of reasoning more common, more useful, and even necessary to human life, than that which is derived from the testimony of men, and the reports of eye-witnesses and spectators. . . . I shall not dispute about a word. It will be sufficient to observe, that our assurance in any argument of this kind is derived from no other principle than our observation of the veracity of human testimony, and of the usual conformity of facts to the reports of witnesses." (74)

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Hume's basic idea seems to be this: we believe things on the basis of testimony because, in the past, we have found that testimony is normally correct: normally the facts conform to the testimony we receive.

Is Hume right about the fact that we have found testimony to be, usually, correct?

Does this mean that we should **always** believe whatever we are told?

No. Testimony is just one piece of evidence among others. And, Hume tells us, in cases in which testimony contradicts some of our evidence, we have to determine which piece of evidence is stronger: No. Testimony is just one piece of evidence among others. And, Hume tells us, in cases in which testimony contradicts some of our evidence, we have to determine which piece of evidence is stronger:

"A wise man, therefore, proportions his belief to the evidence. ... He weighs the opposite experiments: He considers which side is supported by the greater number of experiments: To that side he inclines, with doubt and hesitation; and when at last he fixes his judgement, the evidence exceeds not what we properly call *probability*." (73-4)

This suggests the following rule about when we should, and should not, believe testimony about some event occurring:

### Hume's principle about testimony

We should not believe that M happened on the basis of the testimony unless the probability of the testimony being false < the probability of M occurring.

Hume applies this principle explicitly to the case of miraculous events:

"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 ..." (77)

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What it would mean for the falsehood of the testimony to be "more miraculous" than the occurrence of the relevant event? It would mean that the probability of the testimony being false is even lower than the probability of the event in question happening. And this is exactly what Hume's principle about testimony should lead us to expect.

We now want to know why Hume thinks that a principle of this sort shows that we are never justified in believing testimony about miracles.

To do this, we need to figure out how to determine the relevant probabilities: the probability of the testimony being false, and the probability of the relevant event not occurring. Recall the quote about evidence discussed earlier:

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Hume's idea seems to be this. When we are trying to figure out the probability of some event happening in certain circumstances, we ask: in the past, how frequently as that event been observed to occur in those circumstances? Our answer to this question will give us the probability of the relevant event.

So, for example, to determine whether a fair coin flip will come up heads, we ask: in the past, what percentage of fair coin flips have come up heads? We find that  $\frac{1}{2}$  of them have; so we take the event of the next fair coin flip coming up head to have a probability of 50%, or 0.5.

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This, he thinks, just follows from the definition of a miracle:

"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 can possibly be imagined ... There must be a uniform experience against every miraculous event, otherwise the event would not merit that appellation." (76-7)

Hume's point is that miracles are always departures from the ordinary laws of nature. But the ordinary laws of nature are regularities which have been observed to hold 100% of the time. Of course, we have not observed testimony to be correct 100% of the time. Hence, the probability of testimony regarding a miracle being false will always be greater than the probability of the miraculous event; and then it follows from Hume's principle about testimony that we should never accept the testimony.

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And this is just what Hume concludes:

"... therefore we may establish it as a maxim, that no human testimony can have such force as to prove a miracle, and make it a just foundation for any system of religion."

On this reading, Hume's argument depends upon the following assumption:

# The zero probability principle

If some event has never been observed to occur before, then the probability of it occurring is 0%.

This is what enables Hume to conclude that we can never be justified in believing testimony about a miracle, since, as he plausibly assumes, the probability of the testimony being false will always be > 0.

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Interestingly, this principle also seems to be enough to establish a stronger claim: one is never justified in believing in the existence of miracles, even if one is (or takes oneself to be) an eyewitness. Can you see why?

Perceptual experiences of the world, like testimony, don't conform to the facts 100% of the time. So, the probability of a miraculous event M occurring will always, given the above principle about probabilities, be less than the probability of one's perceptual experience being illusory, since the latter will always be > 0. Hence, it seems, one would never be justified in believing in the existence of a miracle, even on the basis of direct perceptual experience.

This might at first seem like a good thing for Hume's argument: it shows not just that one can never believe in miracles on the basis of testimony, but also that one can never believe in them for any reason at all!

But in fact this brings out a problem for the zero probability principle.

Consider the following sort of example:

You are a citizen of Pompeii in AD 79, and there is no written record of the tops of mountains erupting and spewing forth lava. Accordingly, following the zero probability principle, you regard the chances of such a thing happening as 0%. On the other hand, you know that your visual experiences have been mistaken in the past, so you regard the chances of an arbitrary visual experience being illusory as about (say) 1%. Then you have a very surprising visual experience: black clouds and ash shooting out of nearby Mt. Vesuvius. What is it rational for you to believe?

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This sort of case seems to show that the zero probability principle is false. Other such examples involve falsification of well-confirmed scientific theories.

So, if Hume's argument depends on the zero probability principle, it is a failure. But this doesn't quite mean that Hume's argument is a failure. Sometimes, though, an argument relies on a false premise, but can be fixed by finding another premise which both avoids the problems with the original one, and still delivers the intended conclusion.

So we should ask: can we come up with another principle, which would avoid these sort of counterexamples while still delivering the result that Hume wants?

It seems that we can. All Hume's argument needs, it would seem, is the following trio of assumptions:

- (a) If some event has never been observed to occur before, then the probability of it occurring is at most X%.
- (b) The probability of a piece of testimony being false is always at least Y%.
- (c) Y>X

So, you might think, X does not have to be zero, as the zero probability principle assumes; it is enough for Hume's argument that it be some number which is always lower than the probability of testimony being false.

Suppose, for example, that the probability of an event of some type which has never before been observed is at most 1%, and that there is always at least a 10% chance of some testimony being false. If we assume Hume's principle about testimony, would this be enough to deliver the conclusion that we are never justified in believing in miracles on the basis of testimony?

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No, because one can get testimony from multiple witnesses. Suppose that we have three witnesses, each of whom are 90% reliable, and each independently reports that M has occurred. Then the probability of each witness being wrong is 10%, but the probability of all three being wrong is only 0.1%. This, by the above measure, would be enough to make it rational to believe that M happened on the basis of testimony.

So it seems that the possibility of multiple witnesses shows that (a)-(c) are not enough to make Hume's argument against justified belief in miracles on the basis of testimony work no matter what nonzero values we give to "X" and "Y". (Of course, it is important to distinguish between having testimony from multiple witnesses and having testimony from a single witness who claims there to have been multiple witnesses.)

But what if we have just one witness. In those cases, won't Hume's principle about testimony provide a good argument against the rationality of believing in miracles?

Even this can be called into question, because there is good reason to doubt whether Hume's principle about testimony is itself true.



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This principle can sound sort of obvious; but it isn't, as some examples show. First, what do you think that the probability of the truth of testimony from the writers of the South Bend Tribune would be?

Let's suppose that you think that it is quite a reliable paper, and that its testimony is true 99.9% of the time, so that the probability of its testimony being false is 0.1%.

Now suppose that you read the following in the South Bend Tribune:

"The winning numbers for Powerball this weekend were 1-14-26-33-41-37-4."

What are the odds of those being the winning numbers for Powerball? Well, the same as the odds of any given combination being correct, which is 1 in 195,249,054. So the probability of the reported event occurring is 0.0000005121663739%.

So, if Hume's principle about testimony is correct, one is never justified in believing the lottery results reported in the paper, or on the local news, etc. But this seems wrong: one can gain justified beliefs about the lottery from your local paper, even if it is the South Bend Tribune.

You may want to think about how, if at all, Hume's principle could be modified to avoid these counterexamples. If it cannot be fixed, then Hume fails to show that it is never rational to believe in miracles on the basis of testimony.

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This, of course, does not show that we are currently rational to believe in miracles on the basis of the sorts of testimony we might use as evidence. To decide this question, at least three further issues would need investigation.

- 1. What are the rules which govern rational acceptance of testimony? If Hume's principle about testimony is not right, then what is?
- 2. How good is the evidence for events which seem to be exceptions to the usual natural order? This would involve historical investigation into questions like the following: How many witnesses were there? How reliable were those witnesses? Did they have anything to gain by lying? Etc.
- 3. When is good evidence that some event is an exception to the usual natural order also good evidence of supernatural intervention?

These are all very difficult questions to answer. What I think the discussion of Hume shows is that to decide the relevance of miracles to religious belief, questions like these are the important ones. There is no argument - at least no obvious argument - of the sort Hume sought against belief in miracles.