

INTRODUCTION

One reason some suppose science and reason are incapable of establishing beyond reasonable doubt that certain supernatural claims – for example, that fairies or angels or spirit beings exist – are false, is that they assume you can't prove a negative. Indeed, this is widely supposed to be some sort of "law of logic". For example, Georgia minister Dr. Nelson L. Price asserts on his website that "one of the laws of logic is that you can't prove a negative". If Price is correct and this is indeed a law of logic, then of course it immediately follows that we can't prove that there are no fairies, angels, or spirit beings, or, indeed, that there is no god. We will have established that the non-existence of God is indeed beyond the ability of reason and/or science to establish!

The fact is, however, that this supposed "law of logic" is no such thing. As Steven D. Hales points in his paper "You Can Prove a Negative", (*Think* 10) "You can't prove a negative" is a principle of folk logic, not actual logic. Notice, for a start, that "You cannot prove a negative" is itself a negative. So, if it were true, it would itself be unprovable. Notice that any claim can be transformed into a negative by a little rephrasing – most obviously, by negating the claim and then negating it again. "I exist" is logically equivalent to "I do not exist", which is a negative. Yet here is a negative it seems I might perhaps be able to prove (in the style of Descartes – I think, therefore I do not *not* exist!)

Of course, those who say "You can't prove a negative" will insist that I have misunderstood their point. As Hales notes, when people say, "You can't prove a negative", what they really mean is that you cannot prove that something does not exist. If this point were correct, it would apply not just to supernatural beings lying beyond the

cosmic veil but also to things that might be supposed to exist on this side of the veil, such as unicorns, Martians, rabbits with twenty heads, and so on. We would not be able to prove the nonexistence of any of these things either.

But is the point correct? Is it true that we can never prove that something does not exist? Again, it depends. If John claims there's a unicorn in the tool shed, I can quickly establish he is mistaken by going and taking a look. We could similarly establish there's no Loch Ness monster by draining the loch. But what of the claim that unicorns once existed? We can't travel back in time and directly observe all of the past as we can every corner of the tool shed or Loch Ness. Does it follow that we can't prove unicorns never existed?

It depends in part on what you mean by "prove". The word has a variety of meanings. By saying something is "proved", I might mean that it is established beyond all possible doubt. Or I might mean it has been established beyond reasonable doubt (this is the kind of proof required in a court of law). Can we establish beyond reasonable doubt that unicorns have never inhabited the earth? True, the history of our planet has been and gone, so we can no longer directly inspect it. But surely, if unicorns did roam the earth, we would expect to find some evidence of their presence, such as fossils of unicorns or at least of closely related animals from which unicorns might plausibly have evolved. There are none. We also have plenty of evidence that unicorns are a fictional creation, in which case, it's surely reasonable for us to conclude that there never were any unicorns. Indeed, I'd suggest we can prove this beyond reasonable doubt.

In response, it might be said "But you can't prove conclusively, beyond all possible doubt, that unicorns never roamed the earth." This is undeniably true. However, this point is not peculiar to negatives. It can be made about any claim about the unobserved, and thus any scientific theory at all, including scientific theories about what does exist.

We can prove beyond reasonable doubt that dinosaurs existed, but not beyond all possible doubt.

Despite the mountain of evidence that dinosaurs roamed the earth, it's still possible that, say, all those dinosaur fossils are fakes placed there by alien pranksters long ago.

Let's sum up. If "you can't prove a negative" means you can't prove beyond reasonable doubt that certain things don't exist, then the claim is just false. We prove the non-existence of things on a regular basis. If, on the other hand, "you can't prove a negative" means you cannot prove beyond all possible doubt that something does not exist, well, that may, arguably, be true. But so what? That point is irrelevant so far as defending beliefs in supernatural entities against the charge that science and/or reason have established beyond reasonable doubt that they don't exist.

Adapted from Stephen Law, Believing Bullshit, Prometheus Press 2011.

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