

**Believe in the Scientific Method?  
Why or Why Not?**

The scientific worldview is one which insists that anything worthwhile must be subjected to a test of empirical evidence as well as logical coherency.

It might be asked, "Why? Why would evidence that is not empirically verifiable and illogical be bad?"

This is a good question. The short answer is, "Because very few things can exist within the bounds of scientific rigor. Literally everything can exist outside those bounds."

A common argument made outside the bounds of scientific rigor is the citing of personal, inviolable experience. This form of argument is known as a naked assertion, which is when an argument is made by asserting the conclusion without empirical evidence. It should not be surprising to note that literally anything can be nakedly asserted. True things as well as false things. One can assert that God revealed himself, or that the totality of nirvana revealed itself as specifically not-God.

Anything can exist outside of empirical evidence and logic.

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## Why is this important?

It is only important if one believes there is a reality. If there is a reality, it might be useful to distinguish between real and unreal. People sometimes accuse science of being as faith-based as religion. This is known as [universal skepticism](#). This argument takes the form of asserting that the acceptance of reason is an act of faith. This is a poor argument because,

Reason is the faculty that identifies and integrates the material provided by the senses. Faith is the acceptance of ideas or allegations without sensory evidence or rational demonstration. "Faith in reason" is a contradiction in terms.

It is a contradiction in terms much as is "two and two make five." In fact, it is an iconic example of [doublethink](#). It is an explicit denial of an objective reality external to oneself, which while unreasonable is nevertheless a powerful [rhetorical tool](#).

Anyone familiar with [solipsism](#) and why it must be rejected will understand this, but in brief:

Scientific reason (not faith) is based upon 'what just happened.' Lacking these observations it is not possible to make an argument for or against anything. These observations are:

- There is an external world that exists independently of our minds.
- It is possible to describe how things happen.
- The various "hows" we discover won't change when we are not looking; the universe isn't totally chaotic.

When one steps into an elevator, one does not have faith that one will not plummet to a grisly death. Instead, one has a reasonable understanding of not only how elevators do work, but how they have worked in the past. It requires no faith to ride an elevator free of the fear of imminent death. In the same way, it requires no faith to recognize reality as empirically demonstrated.

One of the great differences between reason and religious faith is the necessity of doubt and humility. Science must doubt everything, including its own theories and observations, and proceed with the utmost humility.

We reason that there is an external world that exists independently of our minds and that we can understand it. Reason is a means to gain knowledge of reality by observing reality. Faith is not a means to gain knowledge, it is an assertion that belief can be accepted without observing reality, or even in spite of reality. It is a rejection of an objective reality. Faith cannot support reason, because faith is the end of reason. It is the thought which stops thought.

Science questions what we know all in the hope that it will result in a better understanding. If this better understanding is substantially different than what we previously believed, [so much the better](#).

## Why is it better?

If one accepts that an objective reality exists, then it follows that it is possible to demonstrate an argument as "more true" or "less true." How can one do this? By making observations, which is what empirical evidence is, and by trying to understand what the 'coherency' of reality is, which is what logical thinking is. So, by appealing to logic and empirical evidence one can discern between good and bad arguments. This is known as critical thinking.

But why use critical thinking for everything? Couldn't some things be beyond empirical evidence and logic?

As noted above, everything is beyond empirical evidence and logic. Or rather, anything at all can be demonstrated to exist if one ignores critical thinking. Citing something as beyond empirical evidence or logic is identical to declaring that sometimes two and two make five, or that reality is contingent on something else (God, typically).

If one believes that arguments can be demonstrated to be "more true" by appealing to illogical arguments lacking empirical evidence, then one cannot discern between good and bad arguments except by arbitrary rejection of one side's personal experience. This thinking can be dangerous.

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### How is it dangerous?

If one accepts that good arguments can be made without logic or empirical evidence, then it follows that one may accept such an argument. Thus it can be concluded that one may believe literally anything.

Or as Thomas Jefferson puts it:

Man once surrendering his reason, has no remaining guard against absurdities the most monstrous, and like a ship without rudder, is the sport of every wind.

Let me explain. If the empirical evidence and logic do not support the argument, all the professor of the argument must do is say, "this is one of those arguments that exists outside the bounds of scientific rigor." If one accepts that such arguments do exist, then one can only reject the professor's argument through naked assertion, which is itself illogical and indistinguishable from the professor's own naked assertion.

To claim one has a good argument that violates critical thinking is the same as claiming all absurdities are equally good arguments.

An individual who believes good arguments can be illogical could believe that suicide bombing will result in 72 virgins in heaven.

An individual who insists on having arguments that are logically coherent and empirically verifiable could never believe such a thing.

The suicide bombing argument is bad and illogical. But not all illogical arguments are bad. Many illogical arguments may in fact [be true](#).

Likewise, logical arguments [can be bad](#). Usually this is because one of the observations is incomplete or wrong. Of course, 'wrong' only has meaning if we accept there is an objective reality external to ourselves, otherwise we could claim the 'wrongness' is just a divine exception. A miracle to be taken on faith. Suffice it to say, as long as one recognizes the constraints of empirical evidence and logic, it will be possible to distinguish a better argument from a worse one.

If one rejects the necessity of empirically verifiable evidence and logic, it will never be possible to distinguish a good argument from a bad one without appealing to an arbitrary decision no less valid than one's opponent's. In fact, no discussion will be meaningful, since it has been accepted that reality is not objective, but rather contingent on some higher power's will.

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### Some reference links:

"Believe in the Scientific Method?" is the companion to another piece of mine, "[Believe in God?](#)"

Perhaps you are unconvinced that accepting one thing on faith necessarily results in a rejection of objective reality. Or maybe you just want to see that thought expanded upon. Check out my essay on [Rhetoric: The Power of Persuasion](#) for a demonstration. **Be warned:** what you learn from reading this article will make you and your arguments more powerful. Use that power for good, please!

My definition of the faith of the scientific method was inspired by this very long (and well-written) essay: [Why Atheism](#)