

# Has science become too dogmatic?

<https://www.quora.com/Scientific-Revolutions/Has-science-become-too-dogmatic/answer/John-Ringland>

<http://anandavala.info/article/Has-science-become-too-dogmatic.pdf>

The scientific method aims to be objective and sceptical, i.e. open to new ideas and only provisionally accepting something when compelled to do so by the weight of evidence, logical argument or mathematical proof.

However the human beings who implement the scientific method are only capable of being objective and sceptical within certain constraints. They are all human and susceptible to various cognitive biases and limitations.

Because of this there are some areas where the objectivity of science clearly breaks down and proven false beliefs are routinely maintained and promulgate under the guise of science whilst proven true facts are routinely ignored or derided. This tendency has been noted by social scientists when studying the scientific community, which led them to coin the term Scientism, which likens the way that many scientists practice science to a religion that uses science based dogma.

Part of the problem is that many of our assumptions upon which our beliefs are based are entirely unconscious so we are not even aware of our true reasons for believing many things, they are just conditioned into us since birth. It is through this cognitive lens that we develop our world-view, self-image, life-story and belief systems. Based upon these we then formulate and test hypotheses and attempt to implement the scientific method. This results in the emergence of a pervasive yet unconscious collective paradigm that is not consciously held, it is experienced as "simply the way things are". See [Do we have a collective paradigm? Else, is it fragmented?](#)

This causes problems when the unconscious beliefs come into question or even worse when they are proven to be false. This creates cognitive dissonance and cognitive repression within individual minds and throughout the scientific community. I briefly address this general phenomenon in [Despite having evidence that contradicts someone's belief, why can't they come to believe something new?](#) For those who wish to be thorough, it would be good to read the quotes at that link, which discuss the presence of cognitive repression in contemporary physics, which is very relevant to what I am about to discuss.

The most endemic and tenacious false belief is Naive Realism which has been proven to be false by quantum mechanics (and cognitive science as well as philosophical argument). Note: the primary problematic aspect of naive realism within the context of science is that it totally ignores the role of experience in the apprehension of that which is experienced, and postulates objective material existence to the objects.

"Materialism is the philosophy of the subject who forgets to take account of himself."  
(Schopenhauer)

Even though falsified, after decades it still persists within the minds and work of quantum physicists, physics in general and throughout the whole of science, philosophy and virtually all aspects of the broader culture. This is largely because there is no alternative that is understood and accepted by the scientific community, however there have been few genuine attempts to understand

existing alternatives or to develop new ones.

Naive realism underlies the empiricist methodology to science (as opposed to the rationalist methodology that quantum mechanics relies on), as well as the belief in materialism and the objective physical universe. See [Can it ever be said that Scientific realism takes off from the springboard of commonsense or naive realism?](#)

These beliefs have been shown to lead to paradoxes (e.g. quantum and relativistic phenomena that are incompatible with the concept of an objective physical universe) and significant explanatory gaps (e.g. the [Hard Problem of Consciousness](#)). This would be crushing for any hypothesis that was being rationally tested, however these beliefs still persist as the ruling dogma of science because of the endemic and unconscious influence of naive realism.

Other hypotheses that avoid naive realism, that don't succumb to paradoxes and that have far more explanatory power (e.g. comprehending subjective experience) are largely misunderstood due to entrenched and unconscious naive realist biases and are hence ignored or derided. There is one emerging hypothesis however it is still very much on the fringe of science, see [The Big Philosophical Questions: Is the Universe a Simulation?](#)

Also see [The Big Philosophical Questions: Now that naive realism has been disproven by quantum mechanics, how will this impact our collective paradigm?](#)

## Dogmatism in action

For a specific example of this dogmatism in action consider the [Princeton Engineering Anomalies Research](#) (PEAR) program, that ran for 28 years at Princeton University.

These experiments were conducted in a rigorous scientific manner and due to their controversial nature there was an extreme level of scrutiny and oversight by outside sceptics. Hence the methodology is known to be rigorous and the results are undeniable.

It's purpose was:

"to study the potential vulnerability of engineering devices and information processing systems to the anomalous influence of the consciousness of their human operators."  
([PEAR Closing Press Statement](#))

That research proved that:

- consciousness influences physical systems,
- intentional influence can be measured,
- ordinary people can exert intentional influence,
- without intention, focused consciousness creates a field of coherence that drives quantum systems away from randomness,
- the affects are not attenuated by spatial or temporal separation,
- various factors such as meditation, bonds of love, group focus, etc can amplify the effect.
- and much more...

The measured effect was proven to a level of certainty of  $10^{-12}$  (i.e. there is a one in a trillion likelihood that the results were due to chance), which is better proven than most commonly

accepted scientific facts. To verify that confidence measure see (R. G. Jahn and B. J. Dunne, "The pear proposition", Journal of Scientific Exploration, vol. 19, no. 2, pp. 195-245, 2005, [http://www.scientificexploration.org/journal/jse\\_19\\_2\\_jahn.pdf](http://www.scientificexploration.org/journal/jse_19_2_jahn.pdf))

The experiments were of interest to pseudo-sceptics whilst there was hope of showing some flaw in the methodology. However when that failed and it turned out that the results are in fact genuine and reliable, the results were essentially ignored by the wider scientific community. The results could not be comprehend within the prevailing paradigm so they were repressed.

To this day it is still common for scientists to make claims based on the prevailing materialist ([Naive Realist](#)) dogma that such things are impossible and that any claims otherwise are based on mere hearsay or pseudo-science. They assume this without any knowledge of the rigorous and irrefutable evidence that has already been obtained and then ignored. They assume that if such things were possible then people should prove it and science would listen - but people have proven it and science hasn't listened.

The lab eventually closed in Feb 2007, stating:

"We have accomplished what we originally set out to do 28 years ago, namely to determine whether these effects are real and to identify their major correlates. There are still many important questions to be addressed that will require a coordinated interdisciplinary approach to the topic, but it is time for the next generation of scholars to take over." ([PEAR Closing Press Statement](#))

That work is now continuing at the [International Consciousness Research Laboratories](#).

"ICRL promotes, encourages, and advances the study, research and dissemination of knowledge related to the broad field of "human consciousness," including recognition of the role of anomalous phenomena for understanding the human mind and acknowledgement of subjectivity as a critical ingredient in any comprehensive model of physical reality."

When something RADICALLY challenges the prevailing paradigm it doesn't matter how rigorous the experiments are or how undeniable the evidence is - cognitive dissonance and cognitive repression mean that denial is the prevailing response. This type of reaction is sometimes referred to as the [Simmelweis Reflex](#). Any deep enquiries into consciousness are bound to go beyond the realm of naive realism and the current paradigm, thereby triggering dogmatic resistance in the form of cynicism and instinctual aversion towards the ideas, without any rational basis. If you wish to test your own reactions, see [What is consciousness?](#)

The overall response of the scientific community is understandable given human weaknesses in the face of a radical paradigm shift and even understandable given the momentum of such a vast collective undertaking as science, i.e. it takes time to change even if there is a will to change. However at the heart of the scientific discourse there remains a strong will to resist change and dogmatically cling to a paradigm that is clearly inadequate.

This resistance will eventually weaken, however in light of the emerging paradigm, at present science as a whole is a bit too dogmatic and could benefit from opening up more to alternate approaches and paradigms. That isn't to say that it should become incredulous, it simply means that it should become aware of its irrational denial tactics and learn to become more rational and genuinely sceptical.