

Morten Tolboll

The pseudoscience of New Age and reductionism

The sciences ask limited questions about Man, or questions about specific sides of the human life. Such questions are then solved by experimenting, collecting systematical observations and from them draw up theories. The sciences collect systematical experiences and throw out theories, that can be tested through new experiences, or serve as the best explanations.

So, one crucial principle in science is, that a certain theory has to be testable. Another crucial principle is the use of abductive reasoning (inference to the best explanation).

Is it testable whether God exists or not? No! Is it testable, that the human consciousness only consists in some physical-chemical reactions in the brain, or that it only is a social construction? No!

Is the best explanation for crop circles, that they have been made by extraterrestrials? Although it is undoubtedly true, that strange patterns are sometimes found in cornfields (crop circles) - it doesn't follow that they must have been made by extraterrestrials. There is a wide range of far more plausible alternative explanations of the phenomenon, such as that they have been made by pranksters.

Pseudoscience is philosophical, political, religious/occult theories, that seek legitimacy by claiming, that they are scientific theories, while the fact is, that they either not is testable, or that they abuse the use of abductive reasoning.

Pseudoscience is for example seen in the New Age environment, where they demand that science has to be integrated with so-called "alternative sciences", such as Intelligent Design, Cryptozoology, Dianetics, Eugenics, Graphology, Homeopathy, Morphic Resonance, Perpetual Motion, Astrology, Personology, Phrenology, Theosophy, Physiognomy, Pyramidology, Quantum Mysticism, Quantum biology, Radionics, Time Cube, Ufology, Vitalism, and many more.

New Age pseudoscience is always based on some kind of religious or occult viewpoint.

More accepted pseudosciences is seen in the intellectual environment in form of reductionisms, where they for example claim, that Man fully can be described and explained with the methods of natural science. This happens in various forms of Naturalism, Positivism and Behaviourism. Or they claim, that psychology, sociology or history can give the total and superior understanding of, what a human being is. These viewpoints are described respectively as Psychologism, Sociologism and Historism.

But all this is not testable. Often the reductionisms then claim, that their theories are the best explanations. The reductionisms observe Man from fragmented viewpoints, for example as organism, as physical-chemical system, as society being, as psyche, as producer and user of language and meaning. But what becomes of the wholeness? What unites all this knowledge to a total image of Man? The reductionisms' explanations of this always end up as philosophical shipwrecks. Reductionisms are philosophical viewpoints, which under cover of being science seek to answer the question of Man, or reality as such. But no single branch of science gives anything else than a limited perspective on Man or reality. If the reductionisms should be taken seriously, then they shall contain a unifying perspective on all knowledge about Man.

It is unfortunate that the reductionisms are so accepted, because it is them that have created distinctions such as "Jewish" and "Aryan" physics; "bourgeois" and "socialist" biology; IQ tests; Eugenics; Personality typing - and a lot of other political inferences from science that have had catastrophic consequences (see for example my article **Personality typing is a refined system of prejudice**).

Where New Age pseudoscience typically is based on the claim that science has to be integrated with occult and religious viewpoints, then the pseudoscience of reductionism typically is based on that science has to be integrated with (or is the same as) atheistic and/or political viewpoints. (see my article **The pseudoscience of reductionism and the problem of mind**).

What can be a serious problem in the future, is that a new kind of pseudoscience is trying to unite New Age pseudosciences with some of the pseudosciences of reductionism (see my article **The Matrix Conspiracy**).

Both New Age pseudoscience and the pseudoscience of reductionism are common in sharing some kind of scientism; that is: they overestimate the importance of science, for example by claiming:

- 1) that philosophy and religion need to be founded in science
- 2) that certain single branches of science can give an explanation of everything
- 3) that certain single branches of science are self-sufficient and that philosophy and religion are superfluous.

In New Age it happens in the demand of “alternative sciences.” In reductionism it happens in the form of pseudoskepticism.

Pseudoskepticism is an important concept in my work as a paranormal investigator, because pseudoskepticism usually is used in opposition to an assortment of questionable claims (from UFOs and paranormal phenomena to alternative medical practices to religious ideas). Pseudoskepticism refers to arguments which use scientific sounding language to disparage or refute given beliefs, theories, or claims, but which in fact fail to follow the precepts of conventional scientific skepticism.

The term “pseudoskepticism” has gradually been expanded to include any unsubstantiated invalidation of a theory.

The term was coined by professor in sociology, Marcello Truzzi. Truzzi attributed the following characteristics to pseudosceptics:

- 1) The tendency to deny, rather than doubt.
- 2) Double standards in the application of criticism
- 3) Tendency to discredit, rather than investigate
- 4) Presenting insufficient evidence or proof
- 5) Assuming criticism requires no burden of proof
- 6) Making unsubstantiated counter-claims
- 7) Counter-claims based on plausibility rather than empirical evidence
- 8) Suggesting that unconvincing evidence is grounds for completely dismissing a claim

Truzzi characterized true skepticism as:

- 1) Doubt rather than denial; nonbelief rather than belief

- 2) An agnostic position, one that says the claim is not proved rather than disproved
- 3) Maintains that science need not incorporate every extraordinary claim as a new "fact."
- 4) As a result, has no burden to prove anything
- 5) Discovering an opportunity for error should make such experiments less evidential and usually unconvincing. It usually disproves the claim that the experiment was "air tight" against error, but it does not disprove the anomaly claim.

An example of pseudoskepticism within reductionism is the British ethologist Richard Dawkins. He is well known for his criticism of religious pseudoscience such as creationism and intelligent design, but is himself, in his atheistic faith, ending in the pseudoscience of reductionism (biologism), for example in his book *The God Delusion*.

Other examples of the pseudoscience of reductionism is the American philosopher Daniel C. Dennett, who in his book - with the ambitious title *Consciousness Explained* - seeks to explain consciousness, partially through computer analogies, partially through neurology and psychology.

Personally I am supporting true skepticism within science, but my method is not itself building on science, but on philosophy. I consider myself as a philosophical investigator, who is using critical thinking, and not a scientific investigator, who have to follow the precepts of conventional scientific skepticism. This is due to, that I have experienced spiritual crises and paranormal phenomena (therefore I can't be an agnostic), but at the same time I am critical towards how to describe and behave in relation to such phenomena.

In the following I will show six ways of identifying pseudoscience:

1) Use of vague, exaggerated or untestable claims

- a) Assertion of scientific claims that are vague rather than precise, and that lack specific measurements.
- b) Use of obscurantist language, and use of apparently technical jargon in an effort to give claims the superficial trappings of science.

2) Over-reliance on confirmation rather than refutation

- a) Assertions that do not allow the logical possibility that they can be shown to be false by observation or physical experiment.
- b) Over-reliance on testimonial, anecdotal evidence, or personal experience. This evidence may be useful for the context of discovery but should not be used in the context of justification (e.g. statistical hypothesis testing).
- c) Presentation of data that seems to support its claims while suppressing or refusing to consider data that conflicts with its claims. This is an example of selection bias, a distortion of evidence or data that arises from the way that the data are collected. It is sometimes referred to as the selection effect.
- d) Reversed burden of proof. In science, the burden of proof rests on those making a claim, not on the critic. “Pseudoscientific” arguments may neglect this principle and demand that skeptics demonstrate beyond a reasonable doubt that a claim (e.g. an assertion regarding the efficacy of a novel therapeutic technique) is false. It is essentially impossible to prove a universal negative, so this tactic incorrectly places the burden of proof on the skeptic rather than the claimant.

3) Lack of openness to testing by other experts

Evasion of peer review before publicizing results (called “science by press conference”). Some proponents of theories that contradict accepted scientific theories avoid subjecting their ideas to peer review, sometimes on the grounds that peer review is biased towards established paradigms, and sometimes on the grounds that assertions cannot be evaluated adequately using standard scientific methods. By remaining insulated from the peer review process, these proponents forgo the opportunity of corrective feedback from informed colleagues.

4) Absence of progress

- a) Failure to progress towards additional evidence of its claims. Terence Hines has identified astrology as a subject that has changed very little in the past two millennia.
- b) Lack of self correction: scientific programmes make mistakes, but they tend to eliminate these errors over time. By contrast, theories may be accused of being pseudoscientific because they have remained unaltered despite contradictory evidence.
- c) Statistical significance of supporting experimental results does not improve over time and are usually close to the cutoff for statistical significance. Normally, experimental techniques improve or the experiments are repeated and this gives ever stronger evidence. If statistical significance does not improve, this typically shows

that the experiments have just been repeated until a success occurs due to chance variations.

5) Personalization of issues

- a) Tight social groups and authoritarian personality, suppression of dissent, and groupthink can enhance the adoption of beliefs that have no rational basis. In attempting to confirm their beliefs, the group tends to identify their critics as enemies.
- b) Assertion of claims of a conspiracy on the part of the scientific community to suppress the results.
- c) Attacking the motives or character of anyone who questions the claims.

6) Use of misleading language

- a) Creating scientific-sounding terms in order to add weight to claims and persuade non-experts to believe statements that may be false or meaningless.
- b) Using established terms in idiosyncratic ways, thereby demonstrating unfamiliarity with mainstream work in the discipline.

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