

## Science vs Pseudoscience paper

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**Pseudoscience** is a statement of beliefs, theories, or practices that is claimed to be scientific and factual without the scientific proof [1]. For one of the examples of a **Pseudoscience** is astrology which in terms is the study of movements and relative of celestial object which shows information future events that is yet to come [1]. **Pseudoscience** is different to science is because pseudoscience does not have significant proof but believing that is a fact is true from newspaper, books, religious and mythological beliefs, and rumors, but science using scientific methods and experiments to analyzing facts and solutions [1]. The other differences between science and pseudoscience is that pseudoscience starts with a hypothesis and then without any source of evidence with a rational strong belief without investigation or testing possibilities and then jumps to a conclusions and spreads misunderstanding [1]. Pseudoscience depends on the arbitrary conventions of human culture rather than on regularities of nature [1]. For example, the interpretations of astrology depend on the name of things which were vary from culture to culture [1]. In ancient civilization calls each of the planets a name without no knowledge about the physical properties of the planets itself [1]. And finally, pseudoscience does not progress because pseudoscientist switch from one fad topic to another fad topic for instance, a ghost to ESP research, then from ESP to looking for bigfoot [1].

In beginning a **scientific theory** is making prediction of an object or a subject by observing what is action and changes [2]. Then prediction leads to the next step of a scientific theory is a hypothesis. The important part of a scientific theory is including a statement that has an observational consequence [2]. A **scientific hypothesis** suggested solution for an unexplained occurrence that doesn't fit as accepted scientific theory [2]. If the evidence is proof is supportive to the hypothesis, it'll moves to the next step know as a theory in the scientific method and becomes accepted as a valid explanation of a phenomenon [2]. Theories can change or interpreted differently but the facts themselves don't change [2]. Any **scientific**

**methods** must be based on careful and rational explanations of the facts which are observed and measure which in theory interoperates the facts from an experiment [2].

**Scientific theory** can't be scientific 100% proof, even if thousands of successful tests and observations cannot prove a theory; they can validate a theory, demonstrate the robustness of a theory, but a single irreconcilable, reproduce observation is enough to show that a theory is not correct in all regimes [3]. This is the mostly true for all theories that they have range-of-validity, and outside of that range their validity breaks down [3]. For example, **Newton's laws of Gravitational** were a huge range of applications but their validity ends when confronted with very large gravitational fields, very small distances and speeds is very close to the speed of light [3]. It was suspended by another theory; **Einstein's theory of General Relativity**, which both includes Newton's range of validity and extends it to these cases [3]. In order to want the theory into a validate or invalidate, it requires an explicit-unique prediction from that hypotheses to the test [3]. The important part of finding fact proof of a theory is requiring data of evidence [3]. Setting up a **data** is making a certain measurement using a specific method and/or set of tools and then getting the results of the data [3]. If the results of similar facts, experiments and/or natural occurrences, it'll have more valuable set of data [3]. Scientific laws can tell you what's going to happens under certain conditions but haven't yet advance to the point of scientific theory [3]. A scientific theory is more advance than scientific law because it exploits an explanation and or a mechanism from which scientific laws arise [3].

A reliable information is one that provides a thorough, well-reasoned theory, argument, and discussion based on strong evidence [4]. Nature Information published is a weekly, international journal, publishing papers from any area of science with great potential impact and importance extends well beyond the confines of specific discipline concerned [4]. Nature has highest impact factor of any journal publishing scientific research [4]. The Nature is form of Editorial, News, Correspond, opinion, views, books, and Arts [4]. The national Enquirer is well known for publishing outrageous and sometimes fake news stories [5]. Most news on the websites are no fake, but the majority is sensationalized gossip that is not well sourced to

credible information [5]. For a sample, the headline reads: *Hillary Clinton: White House Dream Is Over!* In this article they claim that Hillary Clinton will have only 6 months to, which is a false [5].

A peer reviewed or scholarly journal is an information resource of an article which are written by experts and review by other experts before the article is published in the journal in order to insure the article's quality such as the article is to be scientifically valid and reaches a conclusion [6]. In most cases, reviewers do not know the author of the article so that the succeeds or fails [6]. A periodical is any publication that comes out regularly or occasionally such as *TV guide*, *Sports Illustrated*, *The World Almanac*, and *phonebook* [7]. A peer-journal is a scholarly periodical at specialized and researchers that are experts containing original research, conclusions, and abstract or biography for example *The Journal of Physical Chemistry*, *The Chaucer Review*, and *Labor History* [7].

#### Reference

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