

# The Nature of Consciousness

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## ABSTRACT

Arguably the most critical and fundamental question in science is the origin of human consciousness. Does consciousness get produced by the brain, or is it a non-local phenomena?

There are two prevailing and competing models, or paradigms to explain existence. Both are based on conjecture. Both are based on emergence. In one camp sits proponents who posit the model that the universe, creation itself, is an emergent property of some consciousness beyond space and time (paraconsciousness). In the other camp are people who make the case that consciousness emerges from matter. Both of these camps also possess similar corollaries. The first camp supports the idea that life is also an emergence of the same paraconsciousness and the second camp would also argue that life emerges from matter.

Of these four hypotheses, only one is testable. This paper suggests that when this one testable model is actually tested with reasonable predictions, it will be falsified, and when it is, Scientific Materialism itself will be falsified.

Scientific Materialism dictates that life is an epiphenomenon, a byproduct, an emergent property of chemical reactions and electrical impulses in the cell and that human consciousness is an epiphenomenon, a byproduct, an emergent property of brain function. For the sake of reference in this paper, the hypothesis that consciousness is an epiphenomena of brain function will be referred to in this paper as The 'Consciousness Emerges From Matter' (CEFM) Hypothesis.

This paper asserts that this hypothesis has not been properly scientifically investigated, tested, vetted, independently verified, cited, peer reviewed, defended or published.

Furthermore, this paper asserts that it is incumbent of the Scientific Community to apply their own methodology to this hypothesis by attempting to falsify it with a series of testable predictions provided herein. The onus is on Science, as an Institution, to validate their most basic hypothesis.

## INTRODUCTION

Science has always been a philosophical endeavor. The word Science comes from the Latin word *sciens*, the present participle stem of *scire* (“to know”) and the word *scientia* [knowledge]. The word Philosophy comes from *Philo* (“love of”) and *Sophia* (“wisdom”). In its various forms, science has been around for thousands of years, ostensibly since the dawn of man.

Sir Francis Bacon, whom many consider to be the progenitor of the Modern Scientific Era, drew from many Greek philosophers including Democritus, Plato and Aristotle. It was Aristotle who initially referred to his study of nature, Natural Philosophy (Falcon, 2005) and subsequently, Bacon also referred to his version of science *Natural Philosophy* (Bacon, 1902). Most of the early founders of Modern Science (Bacon, Lamarck, Descartes, Newton, Berzelius, et al) accepted in their Philosophy of Nature, a model of reality that assumed some sort of invisible, immeasurable vital life force energy as the animating principle behind biological organisms. Life, itself, was accepted to be metaphysical. This philosophy oriented around an invisible, immeasurable life force is known as vitalism. (Isenhour, 2013)

However, by the 1840s, when logical positivism and atheism became influential ideologies in philosophical academia, scientific materialism became the predominant academic model for any scientific endeavor. (Rapp, 2015) Out of this confluence of circumstances arose the ***Philosophy of Science***, which described a new gold standard for vetting a valid scientific hypothesis. This standard required that in order for a hypothesis to be considered legitimate, testable predictions would need to be produced from it from which the hypothesis could then be tested for falsification. While no one philosopher or scientist is credited with the creation of the Philosophy of Science, Carl Popper is often recognized as one of its preeminent proponents. The demarcation line between science and non-science was considered a vital and critical issue by Popper in order to delineate between the two.

However, when Bacon’s science (*Natural Philosophy*) became Popper’s *Philosophy of Science* (in other words the ***Philosophy of Natural Philosophy***), science became an ideological orthodoxy. This mindset, which was based on Scientific Materialism, precluded the possibility that Human Consciousness could be non-local to the brain due to the underlying conjecture that consciousness was produced by matter. The philosophical definition of Scientific Materialism has as a first principle the concept that everything can be explained in terms of accepting that matter is primary to existence.

Epistemologically speaking, the Philosophy of Science placed limits on what is knowable by declaring that if testable predictions cannot be produced by a hypothesis, then that hypothesis is not a valid scientific hypothesis because we could never know for sure the truth. On one hand, given the significant amount of research being undertaken that can be categorized as fringe, junk or pseudo-science, having a filter for what does or does not

constitute a genuine scientific claim is critical, reasonable and understandable. On the other hand, if the hypothesis that Human Consciousness is local to the brain is falsified, we can deduce that consciousness is non-local and therefore a metaphysical phenomenon.

Along those same lines, if CEFM is discredited, we can also conclude that any psychologist, chemist, psychiatrist, medical professional, sociologist, neuropharmacologist, evolutionary biologist or neurophysicist that operates under a paradigm that assumes that consciousness is an emergent property of brain function is engaging in pseudo-science.

## SECTION I Current Scientific Findings

This section contains all existing hypothetical frameworks that model how the brain produces consciousness, testable predictions, independent verification, peer reviewed published papers, citations and Scientific Laws that indicate Consciousness is produced in the human brain (CEFM).

(The remainder of this page intentionally left blank as a place holder for possible citations)

## SECTION II Basis

Science is not entitled to a free pass on this hypothesis and should be required to apply the same rigor and methodology on this as they do on any other hypothesis. Hand-waving is no substitute for real controlled experimentation, investigation and independent verification.

This section lays out the position taken in this paper in presenting a rational and logical approach to establishing viable testable predictions for the hypothesis that consciousness arises from brain function (CEFM). The predicates for investigating this hypothesis for legitimacy and exploring alternative frameworks for reality are significant. Philosophically, there are three different paradigms that can be used to describe the relationship between human consciousness and the physical world. They are:

- Materialism
- Panpsychism
- Idealism

The materialist's philosophy is that consciousness is produced by the brain. Panpsychists believe that every particle of matter and everything material is endowed with an element of consciousness. The Idealist's perspective is that consciousness is primary to existence; that every particle and everything material is an epiphenomenon or a byproduct of some primordial consciousness.

When determining which of these three models the correct model is, there are no less than four distinct areas of information, literature and research to interpret data from.

These predicates include:

- Research into Human Consciousness Studies
- Quantum Mechanics (QM) and Modern Science
- Philosophy (Greek and others)
- Spiritual Texts

In other words, given that the basic question here is whether or not consciousness is a metaphysical phenomenon or not, it's reasonable to cite ancient metaphysical literature, human consciousness research, traditional philosophies and the implications of QM in spite of how seemingly illogical these sources may all appear to be or how irrational Idealism, Panpsychism and Materialism may seem to any given person.

### [Research into Human Consciousness Studies](#)

Research in to human consciousness has been an ongoing endeavor for over 100 years with the trend moving towards more scientific methodologies starting in the 1930s at Duke being applied by J.B. Rhine. (Mauskopf, 1976) Many of the research studies over the past

80 years lacked the methodological rigor required to be considered legitimate science but by the 70s, the controlled experimentation conducted by the experimenters, such as those as Princeton's PEAR Lab (Van Bakel, 1995) became consistently in line with other more conventional scientific pursuits and included the type of thoroughness required to be credible science and be independently verified.

### Quantum Mechanics (QM) and Modern Science

QM is widely considered to be one of the most successful scientific theories ever (Herman Cappelen, 2016). While QM certainly doesn't prove anything about consciousness (i.e. it is inconclusive whether or not consciousness collapses Schrödinger's wave function), it can provide valuable corroborative support if it doesn't contradict any particular paradigm. In other words, if QM contradicts any of the three models above, that disqualifies that paradigm. Idealism is not contradicted by QM and therefore is worth investigating.

Many of the founders of QM, (Niels Bohr, Werner Heisenberg, Max Planck, Erwin Schrödinger, Max Born, Wolfgang Pauli, etc.) when reconciling the implications and ramifications of the Copenhagen Interpretation of Quantum Mechanics were open to the possibility, if not outright convinced, that consciousness is a metaphysical phenomenon and began to seek out answers about reality through ancient spiritual and philosophical texts. Max Planck wrote *"All matter originates and exists only by virtue of a force... We must assume behind this force the existence of a conscious and intelligent Mind. This Mind is the matrix of all matter. I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we regard as existing, postulates consciousness"* (Pickover, 2008). Neils Bohr has said *"I go into the Upanishads to ask questions."* (Prothero, 2010) According to Schrödinger *"The unity and continuity of Vedanta are reflected in the unity and continuity of wave mechanics. This is entirely consistent with the Vedanta concept of All in One."* (Schrödinger, 1961) Finally, Heisenberg is quoted as having said *"I think that modern physics has definitely decided in favor of Plato. In fact the smallest units of matter are not physical objects in the ordinary sense; they are forms, ideas which can be expressed unambiguously only in mathematical language."* (Capra, 1988)

### Philosophy (Greek and others)

From Aristotle to Francis Bacon to Albert Einstein, Carl Sagan, Stephen Hawking and others, science has always been a philosophical pursuit. The materialistic Philosophy of Science is one of many philosophical perspectives to analyze and interpret scientific data, but is it the correct one? Incorporating a comprehensive understanding of philosophical viewpoints into answering the ultimate question in science, the nature of consciousness, is not unreasonable.

In Greek Philosophy, ranging from Pythagoras' transmigration of souls to Plato's allegory of the cave, there are clear examples of Idealism as the correct interpretation or model of reality and therefore, this is a valid predicate for pursuing this line of thinking. Additionally, eastern philosophies such as Samkhya, Vedanta and Taoism are all internally self-consistent with the paradigm that Idealism presents.

### Spiritual Texts

Finally, texts from ancient spiritual traditions are often times fanciful, contradict one another, are filled with known forgeries and translation/interpretation errors etc. but to disqualify the entire body of work of all world religions because some of the information is suspect would be scientifically irresponsible and philosophically presumptuous. According to Stanford researcher John Loannidis, over 50% of published scientific studies are faulty. (Loannidis, 2005) Are we to discredit all of published scientific research just because half of the published articles are illegitimate?

In Islam, there's something referred to as 'Attaining the station of Abraham'. In ancient Hebrew, there is the word *וירא* (pronounced 'or') which literally translates into "*To become light*", in Buddhism, there is the concept of Moksha or Liberation (curing the disease of Samskara or the birth, life, death rebirth cycle) and in Vedanta there is Self-Realization or Nirvana. Christianity has Redemption/Salvation, which on the surface seems a bit out of place but in the context of all the others becomes consistent with them all, which is to say that they all have some form of Enlightenment. Through the philosophical lens of Idealism, it's conceivable to argue that each of these refers to attaining some sort of universal consciousness. While we can extrapolate a common model by examining the common substrate amongst the various spiritual traditions, religious beliefs themselves shouldn't have any bearing on any endeavor of scientific research. This also should also include atheism, which is a form of religious belief (or rather disbelief). The ramifications of Idealism are undeniable and inescapable and we all know what they are. A scientific paradigm that places consciousness as primary to existence clearly has theological implications but that shouldn't preclude it from being given serious consideration, especially if the evidence against the CEFM Hypothesis is conclusive.

### Conclusion

Idealism is not contradicted by QM, research into human consciousness, world religions or philosophies and therefore it is meritorious of further in-depth investigation. All this paper is asking is that the Materialistic claim that consciousness is produced by the brain be properly investigated and tested. To accomplish this, a series of nine testable predictions has been produced and provided below that have been culled from over 100 years or research into human consciousness.



## SECTION III Testable Predictions

Instead of trying to prove the unprovable (*that consciousness exists beyond space and time*), it's far more meaningful to disprove the disprovable (*the notion that consciousness gets produced by the brain*). In science, getting our first principles correct is paramount and so it's crucial to determine the best we can whether or not consciousness is primary to existence.

This paper is not adding anything new to the research of Human Consciousness. It is merely asking the scientific community to defend its own paradigm. Given the weight of the evidence and the predicates for further review, it's the scientific community's responsibility to attempt to falsify these predictions, even if they believe the results to be impossible. In fact, especially since the Materialists prevailing *belief* is that the results are thought to be impossible warrants rigorous methodological testing given the amount of contradictory findings.

### Premise

Modern Science is based on four (4) well known assumptions (Objectivity, Determinism, Predictability and Empirical Discernibility). At least three of the four of which have been seriously called into question by the findings of Quantum Mechanics (Zyga, 2015) but nonetheless, they have served modern science in countless advancements and discoveries.

Somewhere along the way, around the 1840s, a fifth 'assumption' incidentally and without overt intention became de facto standard in science, and that is the conjecture that human consciousness is somehow manufactured by the brain (the Emergent Property Hypothesis or the CEFM Hypothesis). Materialism simply dictated this conclusion so it just became part of the paradigm by default. This hypothesis has never been published, cited, peer reviewed, independently verified, created into a scientific law or anything like that and yet the entire field of science (and by extension medicine, psychology, psychiatry, sociology, academia, etc.) is based on this untested assumption. In point of fact, one could assert that it is no coincidence that Science has based on Materialism since the 1840's and simultaneously our society has become materialistic. This unintended consequence of science becoming reductionistic is obvious and inescapable. If this assumption of Materialism is proven to be false (falsified), then the entire field of science is going to be required to rethink some of its core tenets and seriously consider a significant course correction while society can also do the same thing.

The consensus perspective from philosophical, religious and spiritual viewpoints, as well as the Copenhagen Interpretation of QM calls into question the prevailing scientific viewpoint that consciousness is local to the brain. The research into human consciousness provides the scientific findings from which we can draw testable predictions from.

## The Emergent Property Hypothesis

There are many different and varied researched phenomena in the field of human consciousness studies that call into question the primacy of consciousness, but these itemized below are arguably the nine best categories in the literature regarding repeatable laboratory controlled experiments with significant results published.

While one of the biggest challenges in this area is coming to a common agreement on what consciousness is, we can begin the process of eliminated what consciousness is *not* and this process can be initiated with an attempt to eliminate the hypothesis that consciousness is produced by or is local to the brain. In other words, these predictions were not made in a vacuum, they were derived from over one hundred years of research into the CEFM hypothesis in an unrelenting pursuit of knowledge. Science also cannot come to a common agreement on what gravity, electricity and magnetism are either, so the simple fact that we can't agree on what consciousness is, needn't be a deterrent into doing good science on it.

A core question up for debate out of this paper should be a very simple proposition; in attempting to falsify the CEFM Hypothesis, can we agree that these nine testable predictions are reasonable?

The nine (9) testable predictions are:

1. Retrocausation
  - If consciousness is an emergent property of brain function, it should not be possible for a test subject to affect future outcomes (prior to them happening) with their minds.
2. Psychokinesis (PK) Effecting RNG
  - If consciousness is an emergent property of brain function, it should not be possible to for a test subject to effect the outcome of a Random Number Generator (RNG) with their minds.
3. Psychokinesis (PK) affecting a person's biophysiology at distance \*\*\*
  - If consciousness is an emergent property of brain function, it should not be possible to have test subject A affect test subject B's heart rate, temperature, respiratory system at a distance, and without B's knowledge or awareness they are being observed.
4. Clairsentience 'feeling' someone is watching you at a distance
  - If consciousness is an emergent property of brain function, it should not be possible to have test subject A intermittently watch test subject B through a closed circuit viewing device and without B's knowledge or awareness, with B having a statistically significant perception of being observed.
5. Clairvoyance Affecting shielded double slit experience with mind

- If consciousness is an emergent property of brain function, it should not be possible to effect the outcome of a blind double slit experiment with the subject placing his/her attention on it.
  - 5(a) Corollary; A subject who is a trained meditator should not be able to effect the test results any different than an untrained individual.
- 6. Presentiment
  - If consciousness is an emergent property of brain function, it should not be possible to effectively 'feel' something prior to it happening (as measured biometrically by galvanic skin response, pulse, respiratory, etc.)
- 7. Remote Viewing
  - If consciousness is an emergent property of brain function, it should not be possible to see with their mind's eye visual targets beyond space and time.
- 8. Healing With the mind
  - If consciousness is an emergent property of brain function, it should not be possible to heal mice from Johnson Labs injected with Mammary Cancer cells.
- 9. Psychometry
  - If consciousness is an emergent property of brain function, it should not be possible for test Subject A to glean specific information from test Subject B by touching an item touched or belonging to Subject B.

When the results of the above experiments have been published in scientific journals, the community tends to conclude that the science used to produce those results must be wrong because the results are impossible. (Engber, 2017) This viewpoint is a legitimate rationale for declaring that the above testable predictions as reasonable as the consensus from materialists is that these are all impossible. Future commentary regarding this paper is expected to draw responses from the scientific community suggesting that it's plausible to develop hypotheses using their current CEFM model where consciousness produced by the brain is capable of all nine of the above effects and therefore, these predictions do not adequately serve to falsify CEFM. Science has never adequately develop a CEFM hypothesis of how the brain manufactures in the first place so it's predictable that they are going to be willing to extend their model to retrofit the above phenomena into their, as of yet, undefined model rather than give up one of their core tenets. If this prediction comes to pass, the materialists will arguably be just as guilty of going down the rabbit hole of pseudo-science as flat Earth theorists.

### Meaningful Experimental Results

To establish falseness of the CEFM hypothesis, the results in the above Controlled Experiments testing the given predictions should yield more than two standard deviations delta from a select control group. Any experimental results expressing a delta greater than two standard deviations will be thought of as falsifying the prediction.

Meta-analysis on the entire battery of the above testable predictions, yielding results beyond two standard deviations and over thousands of test subjects will be sufficient to falsify the entire CEFM Hypothesis.

### SECTION III Conclusions, Implications and Ramifications

By disproving the CEFM hypothesis, science simultaneously disproves both Scientific Materialism (aka Scientific Reductionism) as well as the Philosophy of Science, paving the way for either Panpsychism or Idealism to be the correct paradigm from which to understand our reality. We can rule out Panpsychism with a thought experiment. Scientists have observed statistically significant results in controlled experiments where subjects were able to affect the results of a computer based random number generator (RNG). If human consciousness is able to effect the results of an RNG that would mean that if Panpsychism is the correct paradigm, it would force us to conclude that computers themselves are conscious or have a unique consciousness of their own. Panpsychism is a hybrid model that sits between idealism and materialism and is becoming more prevalent and acceptable within the scientific community for people who've reviewed the results of the above tests on human consciousness, but are unwilling to accept the ramifications and implications of idealism. However, the science behind Idealism is undeniable.

#### Peer Review and Refereeing Results

Given the clear confirmation bias of conventional scientific materialists, it is recommended that any peer paper submitted for review regarding the provided testable predictions above, be reviewed and refereed by a pool of researchers including:

- Marilyn Schlitz PhD,
- Dean Radin PhD,
- William Bengston PhD,
- Garrett Moddell PhD,
- Etzel Cardeña PhD,
- Dr. Larry Dossey, PhD

along with other scientists (approved by members of the above group) who've researched and published papers on these various phenomena.

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