

<https://sites.google.com/site/chs4o8pt/home>

https://sites.google.com/site/chs4o8pt/summary_of_evidence

Consciousness is not Produced by the Brain

Everyone knows that consciousness is influenced by the brain. For example, a brain injury can cause amnesia. However, this correlation between neurological states and mental states does not prove the brain produces consciousness (the production model of the brain). The same correlation would occur if the brain is a filter of non-physical consciousness (the filter model of the brain). In the filter model, the the brain is said to filter some aspects of consciousness the way a colored glass can filter out some wavelengths of light. What passes through the brain filter is a restricted set of conscious faculties that we have while in the physical body. The production and filter models can both explain how brain injuries might cause loss of function like amnesia. However, the filter model can also explain how brain injuries can result in new mental capabilities that the production model cannot explain. This is because a filter can break in two ways: it can be clogged it, or it can be punctured. According to the filter model of consciousness, when brain damage causes loss of function like amnesia, that is like a clog in the filter. When brain damage produces new mental capabilities, such as ESP or in Acquired Savant Syndrome (see below) that is like a hole in the filter. Furthermore, if you release the conscious mind from the brain as happens during a near death experience you should have expanded, unfiltered, consciousness. This is exactly what happens during a near death experience (see below). The production model cannot explain how injuries to the brain could produce new functions like ESP or Acquired Savant Syndrome, or how expanded consciousness could occur during a near death experience, therefore the filter model is a better explanation of how the brain functions. A skeptic may incorrectly say that the filter model is not a scientific theory because it is not falsifiable, since the filter model can explain any change in brain function, loss of function, or gain of function, there is no way to test it. This is a misunderstanding of falsifiability, it is like saying that

the theory of buoyancy is unscientific because it explains why some objects float in water and other objects sink in water.

Subsections

There is no doubt that the brain and the conscious mind interact. Brain damage can cause loss of some functions of consciousness. Amnesia after a head injury or poor memory due to aging are two examples. Brain tumors, injuries to the brain, mental illnesses, other diseases like rabies, and even puberty all influence behavior. Neurological activity can be measured and shown to be associated with mental activity. Nerve impulses from sensory organs result in brain activity, and the conscious mind has awareness of the sensations perceived. When the mind generates the impulse to move, nerve impulses are carried from the brain to the muscles to cause movement. Consciousness is affected by brain activity and it is able to influence brain activity. However this is only a correlation, it is not proof that neurological activity causes consciousness.

In fact, there is no good reason to believe that consciousness is produced by the brain. The brain is a physical system. It is made of atoms that behave according to the known laws of physics. The brain is no more than a mechanical machine or an electronic computer. The reason such devices are [not capable of being conscious](#) is explained in more detail below. But consider a simple machine or a simple computer. No one would say such a device is conscious. However, because the brain is a very complicated system, some materialists will state that consciousness is an emergent property of the brain. This is a fallacy and is also [dealt with in more detail below](#). Calling consciousness an emergent property doesn't really explain how the brain could produce consciousness, it is just a fancy of saying materialism can't explain it.

The Filter Model

The correlation between consciousness and brain activity should also exist if the brain is an interface between a nonphysical mind and the physical body. One way to think of this is that the brain is like a filter of consciousness. This is called the filter model of the brain. In the filter model, consciousness is a nonphysical phenomena and the brain filters consciousness while we are incarnated in our

physical bodies. The brain could filter some aspects of consciousness the way a colored glass can filter out some wavelengths of light. What passes through the brain filter is a restricted set of conscious faculties that we have while in the physical body. The filter model is superior to the hypothesis that the brain produces consciousness because the filter model explains more evidence. You can damage a filter in two ways. You can clog it or you can punch a hole in it. When brain damage causes loss of function like amnesia, that is like a clog in the filter. When brain injury results in increased function, that is like a hole punched in the filter. Examples of increased function include [Acquired Savant Syndrome](#) and when people have increased psychic abilities after a brain injury.

In the filter model one of the functions of the brain is to restrict consciousness. In that case, if you release the conscious mind from the brain as happens during a near death experience you should have expanded, unfiltered, consciousness. This is exactly what happens during a near death experience. People who have NDE's are able to perceive more than they do when in the body. They report seeing in 360 degrees and seeing colors that they do not see when in the body. Blind people report seeing during NDE's. Some near death experiencers report being able to communicate telepathically with other beings. Some report understanding that time is just an illusion or that they seem to have access to all the knowledge in the universe.

Restricting consciousness probably has some survival value. If a person had access to all the information in the universe about any time in the past, present or future, it might be difficult to concentrate on surviving here and now.

Frederic Myers

One of the early descriptions of the filter model of consciousness can be found in the introduction to of "Human Personality and its Survival of Bodily Death" volume I by Frederic William Henry Myers. Myers compares consciousness to light, likening the conscious mind to the visible spectrum and the unconscious mind to parts of the spectrum that are not visible. The brain may filter faculties from any part of the spectrum conscious or unconscious and those faculties that are passed through the filter are those faculties that are available while we are in the body.

In the sun's spectrum, and in stellar spectra, are many dark lines or bands, due to the absorption of certain rays by certain vapours in the atmosphere of sun or stars or earth. And similarly in the range of spectrum of our own sensation and faculty there are many inequalities permanent and temporary of brightness and definition. Our mental atmosphere is clouded by vapours and illumined by fires, and is clouded and illumined differently at different times. The psychologist who observes, say, how his reaction-times are modified by alcohol is like the physicist who observes what lines are darkened by the interposition of a special gas. Our knowledge of our conscious spectrum is thus becoming continually more accurate and detailed. But turning back once more to the physical side of our simile, we observe that our knowledge of the visible solar spectrum, however minute, is but an introduction to the knowledge which we hope ultimately to attain of the sun's rays. The limits of our spectrum do not in here in the sun that shines, but in the eye that marks his shining. Beyond each end of that prismatic ribbon are ether-waves of which our retina takes no cognizance. Beyond the red end come waves whose potency we still recognize, but as heat and not as light. Beyond the violet end are waves still more mysterious, whose very existence man for ages never suspected, and whose intimate potencies are still but obscurely known. Even thus, I venture to affirm, beyond each end of our conscious spectrum extends a range of faculty and perception, exceeding the known range, but as yet indistinctly guessed. The artifices of the modern physicist have extended far in each direction the visible spectrum known to Newton. It is for the modern psychologist to discover artifices which may extend in each direction the conscious spectrum as known to Plato or to Kant. The phenomena cited in this work carry us, one may say, as far onwards as fluorescence carries us beyond the violet end. The X rays of the psychical spectrum remain for a later age to discover.

It is known that brain damage can also affect memory, reasoning, language and other mental functions. If the brain filters consciousness and what passes through the filter is a restricted set of faculties of consciousness that we have while in the physical body, then if the brain is damaged in certain ways, it might filter out more faculties or fail to transmit certain faculties clearly.

William James

This theory is sometimes called the transmission theory. It is discussed in detail in: "Human Immortality: Two Supposed Objections to the Doctrine" by William James. In this lecture James agrees that thought is a function of the brain.

Everyone knows that arrests of brain development occasion imbecility, that blows on the head abolish memory or consciousness, and the brain-stimulants and poisons change the quality of our ideas. The anatomists, physiologists, and pathologists have only shown this generally admitted fact of a dependence to be detailed and minute. What the laboratories and hospitals have lately been teaching us is not only that thought in general is one of the brain's functions, but that the various special forms of thinking are functions of special portions of the brain. When we are thinking of things seen, it is our occipital convolutions that are active; when of things heard, it is a certain portion of our temporal lobes; when of things to be spoken, it is one of our frontal convolutions.

When the physiologist who thinks that his science cuts off all hope of immortality pronounces the phrase, "Thought is a function of the brain," he thinks of the matter just as he thinks when he says, "Steam is a function of the tea-kettle," "Light is a function of the electric circuit," "Power is a function of the moving waterfall." In these latter cases the several material objects have the function of inwardly creating or engendering their effects, and their function must be called productive function.

However he points out that there are different types of functional dependence. Besides thought being produced by the brain it might be released by the brain or transmitted by the brain. But in the world of physical nature productive function of this sort is not the only kind of function with which we are familiar. We have also releasing or permissive function; and we have transmissive function.

The trigger of a crossbow has a releasing function: it removes the obstacle that holds the string, and lets the bow fly back to its natural shape. So when the hammer falls upon a detonating compound. By knocking out the inner molecular obstructions, it lets the constituent gases resume their normal bulk, and so permits the explosion to take place.

In the case of a colored glass, a prism, or a refracting lens, we have transmissive function. The energy of light, no matter how produced, is by the glass sifted and

limited in color, and by the lens or prism determined to a certain path and shape. Similarly, the keys of an organ have only a transmissive function. They open successively the various pipes and let the wind in the air-chest escape in various ways. The voices of the various pipes are constituted by the columns of air trembling as they emerge. But the air is not engendered in the organ. The organ proper, as distinguished from its air-chest, is only an apparatus for letting portions of it loose upon the world in these peculiarly limited shapes.

James goes on to suggest that the functional dependency of thought on the brain might in actuality be a transmissive function.

Suppose, for example, that the whole universe of material things--the furniture of earth and choir of heaven--should turn out to be a mere surface-veil of phenomena, hiding and keeping back the world of genuine realities. Such a supposition is foreign neither to common sense nor to philosophy. Common sense believes in realities behind the veil even too superstitiously; and idealistic philosophy declares the whole world of natural experience, as we get it, to be but a time-mask, shattering or refracting the one infinite Thought which is the sole reality into those millions of finite streams of consciousness known to us as our private selves.

Suppose, now, that this were really so, and suppose, moreover, that the dome, opaque enough at all times to the full super-solar blaze, could at certain times places grow less so, and let certain beams pierce through into this sublunary world. These beams would be so many finite rays, so to speak, of consciousness, and they would vary in quantity and quality as the opacity varied in degree. Only at particular times and places would it seem that, as a matter of fact, the veil of nature can grow thin and rupturable enough for such effects to occur. But in those places gleams, however finite and unsatisfying, of the absolute life of the universe, are from time to time vouchsafed. Glows of feeling, glimpses of insight, and streams of knowledge and perception float into our finite world.

Admit now that our brains are such thin and half-transparent places in the veil. What will happen? Why, as the white radiance comes through the dome, with all sorts of staining and distortion imprinted on it by the glass, or as the air now comes through my glottis determined and limited in its force and quality of its

vibrations by the peculiarities of those vocal chords which form its gate of egress and shape it into my personal voice, even so the genuine matter of reality, the life of souls as it is in its fullness, will break through our several brains into this world in all sorts of restricted forms, and with all the imperfections and queernesses that characterize our finite individualities here below.

According to the state in which the brain finds itself, the barrier of its obstructiveness may also be supposed to rise or fall. It sinks so low, when the brain is in full activity, that a comparative flood of spiritual energy pours over. At other times, only such occasional waves of thought as heavy sleep permits get by. And when finally a brain stops acting altogether, or decays, that special stream of consciousness which it subverted will vanish entirely from this natural world. But the sphere of being that supplied the consciousness would still be intact; and in that more real world with which, even whilst here, it was continuous, the consciousness might, in ways unknown to us, continue still.

He points out that there is no more evidence to suggest thought is produced by the brain than there is evidence that it is transmitted by the brain.

Is it not more rigorously scientific to treat the brain's function as a function of production?

The theory of production is therefore not a jot more simple or credible in itself than any other conceivable theory. It is only a little more popular. All that one need do, therefore, if the ordinary materialist should challenge one to explain how the brain can be an organ for limiting and determining to a certain form a consciousness elsewhere produced, is to retort with a tu quoque, asking him in turn to explain how it can be an organ for producing consciousness out of whole cloth. For polemic purposes, the theories are thus exactly on a par.

In the Preface to the Second Edition of "The Will to Believe and Other Essays", where this lecture is reprinted, James addresses the question: If the personality is a result of consciousness transmitted through the brain, how does that translate into immortality? If the brain dies, then the individuality dies. His answer is that the source of the transmitted consciousness is an individualized consciousness and what happens in the brain may be registered back in the consciousness that is the source of the transmission - the transmission is a two way transmission.

If our finite personality here below, the objectors say, be due to the transmission through the brain of portions of a pre-existing larger consciousness, all that can remain after the brain expires is the larger consciousness itself as such, with which we should thenceforth be perforce re-confounded, the only means of our existence in finite personal form having ceased.

The plain truth is that one may conceive the mental world behind the veil in as individualistic a form as one pleases, without any detriment to the general scheme by which the brain is represented as a transmissive organ.

And in transmitting it - to keep to our extremely mechanical metaphor, which confessedly throws no light on the actual modus operandi - one's brain would also leave effects upon the part remaining behind the veil...

Evidence Explained by Both the Production and Filter Models

In summary, the brain may filter consciousness rather than produce consciousness. Only those faculties of consciousness which are transmitted through the filter are the faculties we have while in the body. This explanation of the relationship between the mind and the brain explains the same phenomena that are explained by the theory that the brain produces consciousness:

If the filter is damaged, it might not transmit some faculties clearly and there could be loss of some mental functions as happens after a stroke or a head injury.

During sleep, or anesthesia, or coma, it may be that nothing passes through the filter and there is no consciousness i.e. unconsciousness.

Evidence Explained by the Filter Model but not the Production Model

The filter model of consciousness also explains many additional phenomena that are not explained by the theory that the brain produces consciousness.

Survival After Death: If consciousness is not produced by the brain but exists separately from the brain, then it can be possible for consciousness to survive the death of the physical body. This can explain the many types of [evidence for the afterlife](#).

Near Death Experiences: If the mind is released from the filter, there should be unfiltered consciousness. This is exactly what happens during a near death experience. People who have NDE's are able to perceive more than they do when in the body. They report seeing in 360 degrees and seeing colors that they do not

see when in the body. Blind people report seeing during NDE's. Some near death experiencers report being able to communicate telepathically with other beings. Some report understanding that time is just an illusion or that they seem to have access to all the knowledge in the universe.

Extra-Sensory Perception: If consciousness exists separately from the brain then it must have some means of perceiving its environment and communicating with other consciousnesses when not incarnated. This suggests that consciousness should have the ability to perceive the environment without using the physical senses. This explains extra-sensory perception, telepathy and clairvoyance, which may be the normal mode of communication and perception by consciousness when it is existing apart from the brain.

Psychokinesis: If consciousness is distinct from the brain there must be some means by which the consciousness can influence the physical brain in order to control the body. This predicts the existence of psychokinesis - the ability of mind to influence matter.

Quantum Mechanics: If consciousness is distinct from the brain there must be some means by which the consciousness can influence the physical brain in order to control the body. This is consistent with the observation from quantum mechanics that consciousness has ability to influence matter by collapsing the wave function of particles.

Mystical Experiences: In deep meditation that reduces brain activity, filtering may be reduced and more faculties of consciousness may be passed through. This could explain mystical experiences of oneness and unlimited knowledge reported by practitioners of Zen Buddhism, Yoga, and other eastern traditions.

Enhanced Psychic Perceptions During Dreams and the Hypnogogic State: Reduced brain activity during sleep, and during the hypnogogic state may result in reduced filtering. This could allow more faculties of consciousness to pass through the filter and result in increased psychic abilities such as clairvoyance, precognition, and spirit communication which have been reported to occur in those states. This is discussed in more detail in the chapter on [A Natural Method for Learning to Communicating with Spirits](#).

ESP Under Hypnosis: Similarly, hypnosis has been used to enhance psychic perception. The hypnotic state may also reduce the filtering of consciousness by the brain. In addition, subjects under hypnosis can remember in much greater detail than they can under normal consciousness. Hypnosis may modify the filter so that a greater faculty of recollection can pass through the filter.

[Acquired Savant Syndrome](#) occurs when exceptional talents arise after a brain injury. There was an article in the dailymail.co.uk on June 1, 2009, of a man who suffered a stroke and as a result gained artistic talents:

For most, stroke and brain surgery can be devastating but for Alan Brown it sparked a previously unseen talent... as an artist. When Alan, 49, emerged from a grueling 16-hour operation following his stroke, he found he had become a reborn 'Michelangelo' and was able to paint and draw with incredible detail.

This is strong evidence that the brain does not produce consciousness but restricts it. It is extremely unlikely that a brain injury could cause the same changes in the brain that learning a skill would produce. If an injury to the brain can give a person a new talent, that suggests that the talent originally existed in the non-physical consciousness but the brain was restricting that talent from expressing itself in the physical organism. The stroke may have damaged the part of the brain that restricted the talent from emerging. This might then allow the patient to become more fully conscious of his innate abilities.

Some individuals might have natural differences in the filtering ability of the brain and some individuals might be able to learn to control that filtering ability. This might explain why some people are naturally more psychic than other and why some people are able to develop their psychic abilities.

Certain types of damage to the filter might let some faculties that are normally restricted, pass through. This could explain why increased psychic abilities sometimes occur after head injuries.

The theory that the brain filters consciousness is superior to the theory that the brain produces consciousness because the filter theory explains everything the production theory explains and it also explains many more phenomena that the production model cannot explain.

The Filter Model of The Brain is Falsifiable and Scientific

A skeptic might say that the filter model of the brain is not scientific because it cannot be falsified. Any change in mental function can be explained by it. If conscious faculties are increased, as occurs during an NDE, it is explained by less filtering, if conscious faculties are decreased, as may occur after a stroke or during sleep, it may be explained by increased filtering. The theory accounts for any possibility and therefore it can't be falsified.

This is a misrepresentation of falsifiability, it is like saying that the theory of buoyancy is unscientific because it explains why some objects float in water and other objects sink in water. For a theory to be scientific it must be supported by evidence. For a theory to be supported by evidence it must pass a test that could demonstrate the theory is false.

If a theory makes predictions and you can design an experiment or make observations to test the correctness of those predictions empirically, then you can test the theory. If the experiments or observations show that the predictions are incorrect, then you have falsified the theory. This is the meaning of falsifiability. If the experiments or observations show that the predictions are correct then the theory has passed the test and can be considered to be supported by evidence and is therefore scientific.

The filter model of the brain makes three correct predictions:

The brain might be damaged in a way that is like a clog in the filter which should cause loss of some conscious capability.

The brain might be damaged in a way that is like a hole punctured in the filter which should result in new or improved capabilities of consciousness.

If the filter is removed from consciousness, then there should be unfiltered, expanded consciousness. The way to test the first two predictions is to observe the effects of brain damage. If you can find cases where damage to the brain causes loss of function and other cases where damage to the brain causes increased function, then those observations prove the first two predictions are correct. There are some forms of brain damage that do cause loss of function, for example, amnesia or senility in the aged. There are also cases of brain damage where there new or improved capabilities of consciousness are produced, such as ESP or in

acquired savant syndrome. The third prediction is proved to be correct by near death experiences where people who come close to death experience leaving their body and experience unfiltered expanded consciousness. The evidence for the second and third predictions is detailed in the [previous section](#).

For a theory to be falsifiable, the theory must make specific predictions that can be tested with empirical observations. The filter model makes specific predictions about what types of effects on consciousness can be produced and those effects can be empirically measured. Brain damage can be detected by various methods such as MRI. Changes in functions of consciousness can be observed. Paralysis from a stroke, or new talents in the case of acquired savant syndrome are easy to observe. The reports of people who have veridical near death experiences are empirical observations made by the experiencers.

The confusion over what an unfalsifiable theory is, is best understood by looking at this [excerpt](#) from Science, Pseudo-Science, and Falsifiability by Karl Popper, 1962, which explains how an unfalsifiable theories is always confirmed:

I may illustrate this by two very different examples of human behaviour: that of a man who pushes a child into the water with the intention of drowning him; and that of a man who sacrifices his life in an attempt to save the child. Each of these two cases can be explained with equal ease in Freudian and Adlerian terms. According to Freud the first man suffered from repression (say, of some component of his Oedipus complex), while the second man had achieved sublimation. According to Adler the first man suffered from feelings of inferiority (producing perhaps the need to prove to himself that he dared to commit some crime), and so did the second man (whose need was to prove to himself that he dared to rescue the child). I could not think of any human behaviour which could not be interpreted in terms of either theory. It was precisely this fact -- that they always fitted, that they were always confirmed -- which in the eyes of their admirers constituted the strongest argument in favour of these theories. It began to dawn on me that this apparent strength was in fact their weakness.

The difference between the filter model of the brain and the psychoanalytic theories in the above excerpt is that the filter model of the brain makes specific predictions about brain damage and its effects that can be empirically observed. In

the above excerpt, the description of the Adlerian theory does not involve testing predictions empirically. Drowning and saving are both predicted by feelings of inferiority and there is no mention of any empirical measurement of inferiority, the need to prove oneself or that this need caused the behavior. If one accepts the theory without empirical tests, then any behavior could be explained by inferiority. In the example of the Freudian explanation of the behavior, empirical measurements of the sublimation and repression are not mentioned either. Sublimation and repression are simply assumed as necessary to explain any behavior. However, if there were empirical measurements taken of repression, and sublimation, in real occurrences of behavior, then the Freudian theory could be tested.

The Transmission Model of The Brain is Falsifiable and is Scientific

The section on the fallacy: [Belief in the Afterlife is not Falsifiable and Therefore is not Scientific](#) explains the significance of falsifiability to a scientific theory.

In short, for a theory to be scientific it must be supported by evidence. For a theory to be supported by evidence it must pass a test that could demonstrate the theory is false.

Someone might question whether the transmission model of the brain can be falsified. However the transmission model makes at least two predictions that can be tested:

Consciousness can exist independently of the brain.

The brain does not produce consciousness.

The first of these tests has already been passed. The chapter on [Evidence for the Afterlife](#) describes the evidence demonstrating that consciousness survives the death of the physical body.

The other way to falsify the transmission model is to study the brain and determine if it produces consciousness or not. Proving the brain produces consciousness will falsify the transmission model.

An electronics engineer can examine a radio receiver and determine that it does not generate the signal it receives and converts to sound. A scientist should be able to examine the brain and determine how it works in the same way. The research that is currently being conducted by neuroscientists to prove the brain

produces consciousness may eventually reach a blank wall like an engineer tracing the signal all the way back to the antenna of a radio and then not being able to go any further and concluding that the radio is a receiver.

The electronics engineer doesn't have to know anything about radio waves nor should the scientist have to know anything about non-physical consciousness. The engineer only needs an amplifier and an oscilloscope and he can trace the signal. Similarly the scientist only needs to understand the physical mechanism of the brain. The same electronics engineer can analyze a computer and show that all the behavior of the circuits are determined by the physical elements of the computer. If the brain produces consciousness, the scientist should be able to do the same thing for the brain. If you properly understand the brain you will know how, for example, an impulse to move your arm originates. If you can't explain how that impulse originates by the mechanism of the brain then you have to look for something outside the brain to explain it.

If someone says a computer is a receiver for radio waves you can falsify it by demonstrating the behavior of the computer is explained by the properties of the physical elements comprising it. If someone says a brain is a receiver for consciousness you can falsify it by demonstrating the behavior of the brain is explained by the properties of the biological elements comprising it. Neuroscience will eventually resolve this question.

How might the transmission model be proven? Perhaps some extremely improbable quantum phenomena will be found to occur in the brain on a regular basis. If nothing known to science can explain it, scientists will have to look for some new phenomena which may lead to the "discovery" of consciousness.

Humans are more than biological machines that operate strictly according to physical laws.

(Note: this section used to contain information that has since been moved to the section [Consciousness is not the Result of Natural Selection](#))

According to materialism, humans are biological machines and everything about us can be explained by the physical descriptions of the atoms that make up our body and brain. If that were true, we would not be conscious because all the functions of a machine are determined by its physical structure. A machine is not conscious.

A materialist might say consciousness is an epiphenomenon or an illusion or an emergent property of the brain. However these beliefs are also fallacies which are explained in the two following sections.

If materialism were true, you would not be conscious. Since you are aware of reading these words, you know you are conscious and therefore materialism is not correct. Humans are more than just biological machines.

Consciousness cannot be Explained as an Emergent Property of the Brain

Some skeptics, when asked to explain how consciousness is produced by the brain will say it is an emergent property. They may say the complexity of the brain somehow causes consciousness to emerge. This is not an actual explanation, it is just a scientific sounding way to say that they cannot explain it. It creates the impression of an explanation without offering any actual explanation.

An emergent property is a property that is not necessarily caused by the individual parts of a system but emerges when they are arranged in a certain fashion. For example, a wheel rolls. This is not necessarily a property of matter. Matter might be formed into a solid cube which does not roll. But when matter is arranged in a wheel, it will roll.

However, merely stating something is an emergent property is not an explanation. Saying consciousness is an emergent property of the brain does not explain consciousness. When you examine a wheel you can understand why it will roll. The laws of physics explain how the ability to roll is caused by a particular arrangement of matter. When you examine a brain you cannot tell how it produces the subjective experiences of consciousness. Physics cannot explain how the subjective experiences of consciousness, what it is like to feel happy, or what it is like to see blue, or what it is like to feel pain, will arise from particular arrangements of neurons in the brain.

When skeptics say consciousness is an emergent property of the brain, that is not an explanation of consciousness. It is a rhetorical trick used because they cannot explain how consciousness is produced by the brain. They are only applying a scientific sounding name to fool people, including themselves, into thinking it is an explanation.

(A further discussion of emergence and why consciousness cannot be an emergent property of the brain can be found on my blog at [Consciousness Cannot be an Emergent Property of the Brain.](#))

Consciousness is not an Illusion or an Epiphenomenon

Skeptics will sometimes say that consciousness is an illusion or that consciousness is an epiphenomenon of the brain. An epiphenomenon is a phenomenon cannot affect the phenomenon that causes it.

Saying that consciousness is an illusion or an epiphenomenon does not really explain consciousness. See the section [Consciousness cannot be Explained as an Emergent Property of the Brain](#) for an explanation of why giving a scientific name to a phenomenon is not the same as explaining it.

Furthermore, the suggestion that consciousness is an illusion is blatantly preposterous. The idea that consciousness is an illusion is refuted by Rene Descartes' formulation, Cogito ergo sum, I think therefore I am. The reality of consciousness is self-evident. To understand how foolish it is to suggest that consciousness could be an illusion, consider what type of entity can be fooled by an illusion into believing it is conscious. Can your car be fooled by an illusion into believing it is conscious? No. Can your computer be fooled by an illusion into believing it is conscious? No. The only type of entity that can be fooled by an illusion into believing it is conscious has to be conscious in the first place because only a conscious entity can have the subjective experience of belief. The brain is a physical machine and is no more capable of being fooled into believing it is conscious than your computer is. Consciousness cannot be an illusion.

The Wikipedia article on [Epiphenomenon](#) says, An epiphenomenon can be an effect of primary phenomena, but cannot affect a primary phenomenon. In philosophy of mind, epiphenomenalism is the view that mental phenomena are epiphenomena in that they can be caused by physical phenomena, but cannot cause physical phenomena. Epiphenomenalism is the theory in philosophy of mind that mental phenomena are caused by physical processes in the brain or that both are effects of a common cause, as opposed to mental phenomena driving the physical mechanics of the brain. The impression that thoughts, feelings or sensations cause physical effects, is therefore to be understood as illusory to some

extent. For example, it is not the feeling of fear that produces an increase in heart beat, both are symptomatic of a common physiological origin, possibly in response to a legitimate external threat.[1]

Neither an illusion nor an epiphenomenon could influence the brain. However, there is empirical evidence that consciousness can influence the brain.

One form of evidence that consciousness can influence the brain comes from the placebo effect. In certain situations, if a patient is given an inactive substance but is told that he is being given a drug, the patient will experience the effects that the drug is said to cause. One example of this occurs when a patient is given a sugar pill but told it is a pain killer. In this situation, patients report that pain is reduced and in fact studies have indicated that this effect is caused by the production of naturally occurring opioids in the brain.

The Wikipedia article on the [Placebo Effect](#) says, The phenomenon of an inert substance's resulting in a patient's medical improvement is called the placebo effect. The phenomenon is related to the perception and expectation that the patient has; if the substance is viewed as helpful, it can heal, but, if it is viewed as harmful, it can cause negative effects, which is known as the nocebo effect. The basic mechanisms of placebo effects have been investigated since 1978, when it was found that the opioid antagonist naloxone could block placebo painkillers, suggesting that endogenous opioids are involved.[31]

What is significant about the placebo effect is that it requires the patient to believe they are being given a drug. With a real drug like a pain killer, the patient will experience the effects even if they don't know they are being treated with it. However, for the placebo effect to occur, the patient must be conscious of the fact that they are being treated. This shows that conscious awareness of a medical treatment can cause the brain to produce opioids. It shows that consciousness can affect the brain.

Another form of evidence that consciousness can affect the brain comes from the phenomenon of self-directed neuroplasticity. Neuroplasticity refers to the ability of neurons in the brain to change their organization or grow. This can occur when someone learns a skill or recovers from an injury. Self-directed neuroplasticity

occurs when neurons in the brain change their organization or grow in response to self observation of mental states.

One situation where self-directed neuroplasticity occurs is meditation. During meditation, a person will observe, (ie. be conscious of) their inner state: their mental activity and the sensations in their body. This conscious attention has been found to cause changes in the brain.

The article [Self-Directed Neuroplasticity: A 21st-Century View of Meditation](#) by Rick Hanson, PhD discusses this:

One of the enduring changes in the brain of those who routinely meditate is that the brain becomes thicker. In other words, those who routinely meditate build synapses, synaptic networks, and layers of capillaries (the tiny blood vessels that bring metabolic supplies such as glucose or oxygen to busy regions), which an MRI shows is measurably thicker in two major regions of the brain. One is in the pre-frontal cortex, located right behind the forehead. It's involved in the executive control of attention – of deliberately paying attention to something. This change makes sense because that's what you're doing when you meditate or engage in a contemplative activity. The second brain area that gets bigger is a very important part called the insula. The insula tracks both the interior state of the body and the feelings of other people, which is fundamental to empathy. So, people who routinely tune into their own bodies – through some kind of mindfulness practice – make their insula thicker, which helps them become more self-aware and empathic. This is a good illustration of neuroplasticity, which is the idea that as the mind changes, the brain changes, or as Canadian psychologist Donald Hebb put it, neurons that fire together wire together.

The article [Mind does really matter: evidence from neuroimaging studies of emotional self-regulation, psychotherapy, and placebo effect](#). (Beauregard M. Prog Neurobiol. 2007 Mar;81(4):218-36. Epub 2007 Feb 9) says,

The results of these investigations demonstrate that beliefs and expectations can markedly modulate neurophysiological and neurochemical activity in brain regions involved in perception, movement, pain, and various aspects of emotion processing. Collectively, the findings of the neuroimaging studies reviewed here strongly support the view that the subjective nature and the intentional content

(what they are "about" from a first-person perspective) of mental processes (e.g., thoughts, feelings, beliefs, volition) significantly influence the various levels of brain functioning (e.g., molecular, cellular, neural circuit) and brain plasticity. Furthermore, these findings indicate that mentalistic variables have to be seriously taken into account to reach a correct understanding of the neural bases of behavior in humans.

The scientific evidence from the placebo effect and from self-directed neuroplasticity shows that consciousness cannot be an illusion or an epiphenomenon produced by the brain because consciousness can affect the brain.

Consciousness is not the Result of Natural Selection

According to materialism, humans are biological machines and everything about us can be explained by the physical descriptions of the atoms that make up our body and brain. If that were true, there would be no need for consciousness because all the functions of a machine are determined by its physical structure. A machine does not need to be conscious to function. Therefore, according to materialism, consciousness should not have evolved because there is no need for it.

A materialist might say consciousness is an epiphenomenon or an illusion. But if that were true, evolution could still not produce consciousness because an epiphenomenon or an illusion could not influence the behavior of an organism and it would not effect natural selection. (An epiphenomenon is a phenomenon that cannot influence the process that causes it). A materialist might also say consciousness is an emergent property of the brain but this says nothing. It is just a fancy of saying "materialism can't explain consciousness" ([see above](#)).

The Brain is not a Conscious Computer

Edward Feser, in his blog post, [Popper contra computationalism](#), explains a flaw in any argument that the brain is a conscious computer operating according to the laws of materialism. First he shows that a purely physical system operating according to the laws of materialism, such as a computer, cannot explain rational thought. Then he points out that since materialism cannot explain rational thought, any argument asserting materialism is true cannot be considered rational. Therefore, the materialist's assertion that the mind is a purely physical system

such as a computer is irrational. In other words, there can be no justification to believe in materialism or that the mind is a computer. Feser shows that materialism cannot explain our ability to reason: Materialism says that thinking is ultimately a mechanical process. Like a computer running a program, thought is a transition from one physical state to another caused by known laws of physics.

Such a transition occurs due to physical laws not due to any inherent meaning in the physical states. But a "thought can serve as a rational justification for another only by virtue of" its "meaning".... "If materialism is true, ... there is nothing about our thought processes that can make one thought a rational justification for another". "If materialism is true none of our thoughts is ever rationally justified."

"This includes the thoughts of materialists themselves." "If materialism is true it cannot be rationally justified", materialism "undermines itself".

If you believe the brain is a conscious computer, it is irrational of you to believe anything. If you believe anything, you must believe materialism is false, the brain is not a conscious computer, and that the mind is not produced by the brain.

A skeptic may say also may cite the paper [Computing Machinery and Intelligence](#) by Alan Turing to argue that the brain is a conscious computer. This paper is about a test for computer intelligence that has come to be called the Turing test. The Turing test involves two people and a computer. One person communicates remotely with both the computer and the other person. If he can't tell which is the person and which is the computer, then the computer passes the Turing test. Turing argued that if you can't distinguish a computer from a person and if you doubt a computer is conscious, you must also doubt other people are conscious. Since we accept that people are conscious, if a computer passes the Turing test, the computer should be considered conscious too.

However, there are several reasons it is incorrect to use this paper as evidence that the brain is a conscious computer.

Turing believed in the evidence for ESP and he felt a computer couldn't reproduce it. (9) The Argument from Extrasensory Perception

I assume that the reader is familiar with the idea of extrasensory perception, and the meaning of the four items of it, viz., telepathy, clairvoyance, precognition and psychokinesis. These disturbing phenomena seem to deny all our usual scientific

ideas. How we should like to discredit them! Unfortunately the statistical evidence, at least for telepathy, is overwhelming. It is very difficult to rearrange one's ideas so as to fit these new facts in. Once one has accepted them it does not seem a very big step to believe in ghosts and bogies. The idea that our bodies move simply according to the known laws of physics, together with some others not yet discovered but somewhat similar, would be one of the first to go.

If telepathy is admitted it will be necessary to tighten our test up. The situation could be regarded as analogous to that which would occur if the interrogator were talking to himself and one of the competitors was listening with his ear to the wall. To put the competitors into a "telepathy-proof room" would satisfy all requirements."

Turing wrote that the proof of his belief that a computer could pass the Turing test would only occur when a computer actually passed the Turing test. He incorrectly believed this would happen by the end of the twentieth century. However, it is already the second decade of the twenty first century and no computer has ever passed the Turing test. So there is no actual evidence that a computer can pass the Turing test. The only really satisfactory support that can be given for the view expressed at the beginning of §6, will be that provided by waiting for the end of the century and then doing the experiment described.

From §6: I believe that in about fifty years' time it will be possible, to programme computers, with a storage capacity of about 10^9 [10⁹], to make them play the imitation game so well that an average interrogator will not have more than 70 per cent chance of making the right identification after five minutes of questioning. The original question, "Can machines think?" I believe to be too meaningless to deserve discussion. Nevertheless I believe that at the end of the century the use of words and general educated opinion will have altered so much that one will be able to speak of machines thinking without expecting to be contradicted.

Clearly this prediction has not come to pass.

Even if a computer could pass the Turing test, that would not prove human consciousness is produced by the brain. There is a large amount of evidence that [human consciousness survives the death of the body](#). A computer cannot imitate this. Any theory to explain human consciousness has to account for that

evidence. You can't ignore empirical evidence because it contradicts a theory. A theory must be consistent with the empirical evidence, otherwise the theory is wrong.

Also see: [Kripka Contra Computationalism](#)

Consciousness may be Non-Physical and still be Able to Interact with Matter.

One of the criticisms of belief in the soul (dualism) is that if consciousness was non-physical, there would be no way for it to interact with the physical world (the physical universe is causally closed) and consciousness would not be able to influence the body. This is a paradox caused by a semantic disconnect. "Physical" means something different in the context of "non-physical consciousness" than it does in the context of "physical universe".

Mind is said to be non-physical because, for example, you can't explain qualia, ie. What red looks like, through a physical explanation. In this case physical means "produced by matter". The physical universe is said to be causally closed because if something is going to interact with matter, it must have physical properties. Here physical means "interacts with matter." However the fact that you can't explain qualia with a physical explanation doesn't mean mind doesn't have physical properties. Something that cannot be produced by matter might still be able to interact with matter. Here's an analogy: a photon doesn't have mass but it can exert a kinetic force because it has momentum. A photon is not made of matter but it can interact with matter electrically and kinetically. Just because mind cannot be explained by (known) physics, does not necessarily mean that it cannot interact with matter.