

Consciousness

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Abstract

The present scientific paradigm holds that the brain is the seat of consciousness, and a complete knowledge of the neurons will yield a full understanding of this phenomena. There are also non-scientific paradigms that suggest that consciousness is some how connected to a great universal consciousness, the mind of God. In this paper I will separate these two ideas by defining a local and global consciousness, and will briefly discuss both.

1 Consciousness

1.1 Local Consciousness

I will hypothesize that the seat of local consciousness is more than just the brain. It involves the entire body. In the local conscious state the brain is flooded with signals from the senses. These signals, when received by the brain, are interpreted by the internal model developing from birth[1]. The brain then responds in some way to the information received. For example, a sound is received by the ears and electrical signals are sent to the brain which interprets the signals and determines the direction of the sound. The brain then sends commands to the eyes to move in that direction. Thus, in all cases, information received by the body from the material world, is sent to the brain and processed. The brain then sends commands back to the body. This feedforward (senses to the brain) and feedback (brain to the body) of information constitutes an awareness, a feeling something is

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happening. This stream of back and forth information plays like a movie that envelops the entire brain-body, all nerves and muscles, and thus we are conscious. When we are in deep sleep or are anesthetized the feedback or feedforward loops, or both, are broken and we lose awareness or consciousness. There is a simple parlor trick often used to amuse young children. Tapping someone on a shoulder the person will turn toward that shoulder, thus clearly demonstrating the feedforward-feedback of the entire brain-body. Psychology is full of experiments that confound the feedforward and feedback process, such as the phantom hand[2]. Clearly magicians make use of this process to confound and amuse us. Thus the brain alone can not be conscious, it requires the entire brain-body to produce consciousness. We must ask the question, is a person with no connection to his/her body conscious. Clearly the internal organs must be intact. The heart, the lungs and other physiological parts must be functional in some way to support life. Consciousness does not require the whole body, for example if only the eyes and ears remain functional the feedforward feedback still exists and so does consciousness. This immediately suggests that all animals with a brain and nervous system experience local consciousness. I know I am conscious, and with this, I also know you are conscious, as well as our pet dogs and cats, and the birds in the trees. Local consciousness is not mysterious.

1.2 Global Consciousness

Global consciousness on the other hand is mysterious. We are beginning to find ways to experiment with global consciousness. Quantum Mechanics has provided that window. It has been shown that the act of being aware of some part of a quantum system will alter the results of the system. Radin[3] has demonstrated that when people are asked to concentrate and imagine a photon going through a slit in a double slit experiment, the measured results are altered by a small but significant amount, independent of the distance between the conscious observer and the double slit experiment. Efforts to program a computer to mimic that task has no effect. From a philosophical perspective this begins to cast doubt on the materialistic philosophy we currently believe structures the universe.

2 References

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