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Consciousness and the Social Brain

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ABSTRACT: What is consciousness and how can a brain, a mere collection of neurons, create it? In my lab we are developing a theoretical and experimental approach to these questions. The theory begins with our ability to attribute awareness to others. The human brain has a complex circuitry that allows it to be socially intelligent. This social machinery has only just begun to be studied in detail by neuroscientists. One function of this circuitry is to attribute a state of awareness to others: to build the construct that person Y is aware of thing X. In our hypothesis, the machinery that attributes awareness to others also helps attribute the property to oneself. Evidence from the clinic shows that when the same brain areas are damaged, people suffer from a catastrophic disruption in their own awareness of objects and events. The theory also draws on the relationship between awareness (the subjective experience that human brains report having) and attention (the brain's data-handling method of focusing resources on a limited set of signals). We suggest that awareness is an internal model or "cartoon sketch" that the brain constructs of attention. Through these perspectives we hope to understand awareness from a rational perspective as part of the information-processing toolkit used by neural systems.

BIOGRAPHY: Michael Graziano is a neuroscientist and novelist at Princeton University. His contributions on the functioning of the brain regularly appear in scientific journals such as Science, Nature and the Proceedings of the National Academy of Science. He has published books on the brain including the popular book God, Soul, Mind, Brain and Consciousness and the Social Brain. His novels include The Divine Farce and The Love Song of Monkey. More information can be obtained on his web site:
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