

## Social cognition

As the brain evolves to develop an awareness for social cognition, so does its ability to interpret the intentions of others. In the modern world one is able to understand the intentions of other humans by their behavior: facial expressions, twitching, etc. Research on the ability of humans to understand their peers' intentions is limited, but it is theorized that human understanding of different behaviors is a defense mechanism in order to protect oneself. The evolution of social cognition can be observed with use of the behavioral modernity theory. Behavioral modernity suggests that humans have evolved in a way that makes humans think and perceive different subjects in an abstract manner [1]. The behavioral modernity theory suggests that humans began to think critically and abstractly beginning around 40,000 - 50,000 years ago [2]. As time passes humans are constantly evolving to understand the intents of others through the brain's awareness of facial and body signals. The discernment of facial and body signals that humans have been able to acquire suggests that the human brain uses social cognition as a means to read the purpose of other humans to know how to act in their own future behaviors.

The way people understand facial expressions, vocal pitch, and body language can be related to how humans recognize their own emotions in relation to the emotions and intentions of other humans [3]. Social cognition plays an important role in this understanding of how an individual may learn to adapt to certain situations in regards to how humans perceive the behavior of others. Work in the field of social cognition has

led to the discussion of whether or not humans have always had the capability to read the intentions of others. Sociologist Nikolas Rose explains that there have been arguments in the field of social cognition that claim that there are areas of the brain that have evolved in order to have the capacity to read the intent and feelings of humans [4]. It is still important to note that it is still uncertain whether or not there is a specific region of the brain that deals with social cognizance.

In academic research done by W. Tecumseh Fitch, Ludwig Huber, and Thomas Bugnyar it was found that when one observes the last common ancestors humans one can observe that there is social cognition capabilities between primates and deduce that humans have had the ability to read the intention of emotions of other humans since a long time ago [5]. Humans are thought to have the highest social cognizance across many species, but that is still being debated in the research and scientific field. However, there has been research across different species to determine the species' level of significance. Some species have more or less social cognitive abilities compared to other species, which leads evolutionary researchers to suspect that social cognition is an ability that can be acquired through evolution [6].

There has been research to find out if social cognition is something that is learned behavior or if the human brain has evolved to have a specific region of the brain dedicated to understanding other humans' emotion and intentions. In order to find out the answer to that question, there has been a rise in the creation of new technology that would allow one to look into and study the human brain. The technology being used includes but is not limited to, Brain Electrical Oscillations Signature (BEOS), X-rays ,

Electroencephalography (EEG), and others. The way that researchers have been using this technology to learn about social cognizance and where it comes from, is to look at the human brain to see if there are any signs of when a human recognizes another human's emotion as deceptive, sad, or any other emotion. It is important to acknowledge that these technologies and these studies are not always fully accepted or fully accurate [7]. Therefore, the study of social cognition still remains speculative more than factual in the finding for its evolutionary processes.

Citations:

1. Wikimedia Foundation. (2021, October 17). *Behavioral modernity*. Wikipedia. Retrieved October 29, 2021, from [https://en.wikipedia.org/wiki/Behavioral\\_modernity](https://en.wikipedia.org/wiki/Behavioral_modernity).
2. Wikimedia Foundation. (2021, October 17). *Behavioral modernity*. Wikipedia. Retrieved October 29, 2021, from [https://en.wikipedia.org/wiki/Behavioral\\_modernity](https://en.wikipedia.org/wiki/Behavioral_modernity).
3. Rose, N. (2016). *Reading the human brain: How the mind became legible*. SAGE Journals. Retrieved October 29, 2021, from <https://journals.sagepub.com/doi/full/10.1177/1357034X15623363>.
4. Rose, N. (2016). *Reading the human brain: How the mind became legible*. SAGE Journals. Retrieved October 29, 2021, from <https://journals.sagepub.com/doi/full/10.1177/1357034X15623363>.
5. Fitch, W. T., Huber, L., & Bugnyar, T. (2010, March 25). *Social Cognition and the evolution of language: Constructing cognitive phylogenies*. Neuron. Retrieved October 29, 2021, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415479/#:~:text=Social%20cognition%20is%20closely%20linked,1987%3B%20Macnamara%2C%201972>.
6. Fitch, W. T., Huber, L., & Bugnyar, T. (2010, March 25). *Social Cognition and the evolution of language: Constructing cognitive phylogenies*. Neuron. Retrieved

October 29, 2021, from

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415479/#:~:text=Social%20cognition%20is%20closely%20linked.1987%3B%20Macnamara%2C%201972.>

7. Rose, N. (2016). *Reading the human brain: How the mind became legible*. SAGE

Journals. Retrieved October 29, 2021, from

[https://journals.sagepub.com/doi/full/10.1177/1357034X15623363.](https://journals.sagepub.com/doi/full/10.1177/1357034X15623363)