

# Introspective experiences inform inferences about similar people -- but not dissimilar

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Using fMRI scanning, researchers have found that the region of the brain associated with introspective thought is also accessed when inferring the thoughts of other people who are similar to oneself. However, this is not the case when considering those who are different politically, socially, or religiously.

Published in the current edition of the *Proceedings of the National Academy of Sciences*, the study was led by Adrianna Jenkins, a graduate student in the Department of Psychology in the Faculty of Arts and Sciences at Harvard University, with Jason Mitchell, assistant professor of psychology at Harvard. Jenkins and Mitchell's co-author was C. Neil Mcrae of the University of Aberdeen.

“Our research helps to explain how and when people draw on their own inner experiences to make inferences about the experiences of others,” says Jenkins. “The findings suggest that the part of the brain that is responsible for introspection also helps us to understand what other people might be thinking or feeling. But this primarily seems to be the case for people who we perceive to be similar to ourselves.”

Psychologists have not fully understood how it is that we make numerous, and often accurate, inferences about others' thoughts and feelings. Some have theorized that we use aspects of our own experience to model the thoughts of others, while another theory posits that we acquire a knowledge base from observations and societal rules that guides our understanding of others' mental states.

This study suggests that both processes may be used in different contexts. We may only use ourselves as a basis for understanding others when we have reason to believe our own minds and experiences are sufficiently similar to those of the other person.

Previous research has shown that the region of the brain associated with self-introspection, the ventromedial prefrontal cortex (vmPFC), is also associated with understanding the thoughts and feelings of others.

Jenkins and colleagues tested whether individuals are more likely to access this self-referential region of the brain when considering the thoughts of a similar person or someone who is different. They used fMRI scans to examine brain activity when individuals were asked about their thoughts or feelings regarding an everyday experience, and what they imagine that another person might think or feel about a similar everyday experience.

The study involved 13 students, both graduate and undergraduate, from colleges and universities in the Boston area, who identified themselves as politically liberal at the end of the study.

At the beginning of the study, the subjects were shown photographs of two unfamiliar individuals, and then read a brief descriptive paragraph about each. One individual was described as a student at a college in the Northeast, with liberal political and social attitudes, and one as a conservative, fundamentalist Christian at a large university in the Midwest.

The students were then asked a series of questions about their own thoughts or feelings, and the thoughts or feelings of the liberal or conservative individual. The questions pertained to everyday experiences such as, “How much do you enjoy doing crossword puzzles?” or, “How likely is it that he would get frustrated while sitting in traffic?”

By examining the brain's activity in the vMPFC, the researchers were able to see that the individuals used a similar thought process when considering their own reactions to the questions, and the reactions of the individual that was identified as a liberal college student in the Northeast. However, the researchers did not see similar activity in this region of the brain when the subjects were considering the thoughts and preferences of the conservative, Midwestern students.

According to Jenkins, it's possible that we rely on our own perspective to assess the potential thoughts and feelings of people who we think are similar, while we may make inferences regarding the thoughts of dissimilar others based on a different process.

Further research will examine whether it is possible to manipulate this effect, and utilize the more introspective thought process when assessing the feelings of dissimilar others.

A forthcoming study in *Psychological Science*, led by Daniel Ames with Jenkins, Mitchell and Mahzarin Banaji, professor of psychology at Harvard, considers whether or not the application of this self-referential thought process is immutable. The results of this study suggest that when an individual assumes another's perspective, in this case by writing a short essay from the perspective of another person, he or she is more likely to later use the vMPFC region of the brain when later making inferences regarding that person's thoughts or feelings.

Source: Harvard University

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