

Following the Crowd: Brain Images Offer Clues to How and Why We Conform

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What is conformity? A true adoption of what other people think—or a guise to avoid social rejection? Scientists have been vexed sorting the two out, even when they've questioned people in private.

Now three Harvard University psychological scientists have used brain scans to show what happens when we take others' opinions to heart: We take them "to brain"—specifically, to the orbitofrontal cortex and nucleus accumbens. These regions compute what we value and feel rewarded by, both primitive things like water and food and socially meaningful things like money.

The study—by Jamil Zaki, Jessica Schirmer, and Jason Mitchell—is published in *Psychological Science*, a journal of the Association of Psychological Science.

"Conformity gets a bad rap," says Zaki, a postdoctoral fellow. "That is partially predicated on the idea that it is a form of lying: you're lying about yourself to try to fit in. Our data suggest that at a deep emotional level you really are changing your view."

To investigate how the social environment influences what we care about, the researchers used a trusty indicator of shared values—and notorious barometer of fickle opinion—beauty.

Fourteen men ages 18 to 26 were asked to rate the attractiveness of 180 digitized female faces on a scale from 1 to 7. They were told that several hundred young men like them had also rated the faces. With each face, the participant's rating appeared in green on a scale at the bottom of the screen. After two seconds, the compatriots' ratings—actually, values assigned by a computer—appeared in red and remained for two more seconds. Some of those "peer" ratings were higher than the participant's, some were lower, and some were the same. When the participant assessed a face as particularly unattractive, the "peer rating" was disproportionately high, and vice-versa.

About a half-hour later, participants rated each of the 180 faces again—this time without the peer ratings. While they did so, their brains were scanned by MRI machines.

Not surprisingly, the men were influenced by others' opinions—even if they didn't realize it. Where the peer rating was higher than theirs, the participants found the women lovelier on second thought. When peers rated a face as less attractive, the participants' also lowered their opinions.

The MRI brain images revealed interesting patterns during these responses: While they were reassessing those women more favorably, the men's brains revealed significantly greater response in those two critical reward-related regions. When their opinions cooled, so did the brain responses. Even in our brains, "other people's opinions leak into our own," says Zaki.

We might look down on these proven followers, Zaki adds. “We see conformity as a weakness; we say it supports bad behavior,” like smoking or overeating. “But if you think conformity is a powerful social mechanism through which we change our ideas about the world, it could be used positively”—encouraging people to vote or donate to charity. The added incentive: Valued behavior stimulates the brain’s reward regions. It feels good.