

# Empathy with strangers can be learned

21 December 2015



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We can learn to empathize with strangers. Surprisingly positive experiences with people from another group trigger a learning effect in the brain, which increases empathy. As researchers from the University of Zurich reveal, only a handful of positive learning experiences already suffice for a person to become more empathic.

Conflicts between people from different nationalities and cultures often stem from a lack of [empathy](#) or compassion for 'the stranger'. More empathy for members of other groups could thus encourage peaceful coexistence. A study conducted by the University of Zurich examined whether empathy with strangers can be learned and how positive experiences with others influence empathic brain responses.

## Surprising behavior influences learning

Psychologist and neuroscientist Grit Hein teamed up with Philippe Tobler, Jan Engelmann and Marius Vollberg to measure [brain activation](#) in participants who had had positive experiences with a member of their own group (in-group member) or another group (out-group member). During the test, the participants expected to receive painful shocks to the backs of their hands. However, they also discovered that a member of their own or another group could pay money to spare them pain. The brain activation while observing pain in a person from one's own or another group was

recorded before and after these experiences.

At the beginning of the study, the stranger's pain triggered a weaker brain activation in the participant than if a member of his or her own group was affected. However, only a handful of positive experiences with someone from the stranger's group led to a significant increase in empathic brain responses if pain was inflicted on a different person from the out-group. The stronger the positive experience with the stranger was, the greater was the increase in neuronal empathy.

The increased empathic brain response for the out-group is driven by a neuronal learning signal that develops through surprisingly positive experiences with a stranger. "These results reveal that positive experiences with a [stranger](#) are transferred to other members of this group and increase the empathy for them," says Hein.

**More information:** How learning shapes the empathic brain, *PNAS*, [www.pnas.org/cgi/doi/10.1073/pnas.1514539112](http://www.pnas.org/cgi/doi/10.1073/pnas.1514539112)

Provided by University of Zurich

APA citation: Empathy with strangers can be learned (2015, December 21) retrieved 17 September 2019 from <https://medicalxpress.com/news/2015-12-empathy-strangers.html>

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