

Empathy with strangers can be learned

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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 be-come 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

Provided by University of Zurich

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