The Brain Acts Fast To Reappraise Angry Faces

November 14, 2011

If you tell yourself that someone who's being mean is just having a bad day—it's not about you—you may actually be able to stave off bad feelings, according to a new study which will be published in an upcoming issue of <u>Psychological Science</u>, a journal of the <u>Association for Psychological Science</u>.

Having someone angry at you isn't pleasant. A strategy commonly suggested in cognitive-behavioral psychotherapy is to find another way to look at the angry person. For example, you might tell yourself that they've probably just lost their dog or gotten a cancer diagnosis and are taking it out on you. Stanford researchers Jens Blechert, Gal Sheppes, Carolina Di Tella, Hants Williams, and James J. Gross wanted to study the efficiency and the speed of the process of reappraising emotions. "You can see this as a kind of race between the emotional information and the reappraisal information in the brain: emotional processing proceeds from the back to the front of the brain, and the reappraisal is generated in the front of the brain and proceeds toward the back of the brain where it modifies emotional processing" Blechert says.

Blechert and his colleagues came up with two experiments to study this process. Participants were shown several series of faces and tested on their reactions. For example, in one set, they were told to consider that the people they'd seen had had a bad day, but it's nothing to do with you. "So we trained the participants a little bit, not to take this emotion personally, but directed at someone else," Blechert says.

They found that, once people had adjusted their attitude toward someone, they weren't disturbed by that person's angry face the next time it appeared. On the other hand, when participants were told to just feel the emotions brought on by an angry face, they continued to be upset by that face. In a second study, the researchers recorded electrical brain activity from the scalp and found that reappraising wiped out the signals of the negative emotions people felt when they just looked at the faces.

Psychologists used to think that people had to feel the negative emotion, and then get rid of it; this research suggests that, if people are prepared, it's actually a much faster and deeper process.

"If you're trained with reappraisal, and you know your boss is frequently in a bad mood, you can prepare yourself to go into a meeting," says Blechert, who also works as a therapist. "He can scream and yell and shout but there'll be nothing." But this study only looked at still pictures of angry faces; next, Blechert would like to test how people respond to a video of someone yelling at them.