Smile to remember a smile

We use facial expression to help recall an emotion

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Smiles are contagious, even when we're trying to remember them. A study carried out by a research team of the International School for Advanced Studies (SISSA) of Trieste shows that in order to recall an emotion (positive or negative) we "re-enact" the motor sequence of the facial expression corresponding to that emotion. In other words: when remembering a smile, we smile.

We smile to recall happiness, grimace to recall pain, and frown to recall anger: "theories of embodied emotion state that in order to process an emotion we first reproduce the facial movements of the expression induced by that emotion," explains Jenny Baumeister, SISSA researcher. "In practice, if we watch someone smiling, we tend to smile as well in order to appreciate what that person is feeling. We applied this finding to memory and assessed whether it is also true when we're trying to recall an emotion". Baumeister is the first author of a paper just

published in *Acta Psychologica*, which assessed whether the re-enactment of an emotional expression – for example, smiling or frowning – improves the ability to recall the corresponding emotion.

In the experiments, participants were invited to perform a memory task involving emotions. To control participants' facial expressions, the researchers devised two experimental conditions: when participants had to remember the emotions, their faces could be either completely free or 'blocked' by a clay mask, "very similar to the ones normally used in cosmetics. Once applied to the face, clay hardens and blocks facial expression" explains Francesco Foroni, SISSA neuroscientist and co-author of the study.

The results are clear: performance on the memory tasks with the face in blocked condition was significantly worse than with the face in "free" condition. "The data confirm the hypothesis that 're-enacting' the motor pattern associated with the emotion helps to recall that emotion. This suggests that even during the storage phase of memories, we also encode the motor information and re-use it during retrieval", explains Raffaella Rumiati, SISSA professor and study coordinator.

USEFUL LINKS:

- **Original paper on Acta Psychologica: http://goo.gl/MuEZqa**

IMAGE:

- **Credits: fergysnaps (Flickr: http://goo.gl/9pwC1t)**

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