

# Grin and Bear It! Smiling Facilitates Stress Recovery

July 30, 2012

*Just grin and bear it!* At some point, we have all probably heard or thought something like this when facing a tough situation. But is there any truth to this piece of advice? Feeling good usually makes us smile, but does it work the other way around? Can smiling actually make us feel better?

In a study forthcoming in [Psychological Science](#), a journal of the [Association for Psychological Science](#), psychological scientists Tara Kraft and Sarah Pressman of the University of Kansas investigate the potential benefits of smiling by looking at how different types of smiling, and the awareness of smiling, affects individuals' ability to recover from episodes of stress.

“Age old adages, such as ‘grin and bear it’ have suggested smiling to be not only an important nonverbal indicator of happiness but also wishfully promotes smiling as a panacea for life’s stressful events,” says Kraft. “We wanted to examine whether these adages had scientific merit; whether smiling could have real health-relevant benefits.”

Smiles are generally divided into two categories: *standard* smiles, which use the muscles surrounding the mouth, and *genuine* or *Duchenne* smiles, which engage the muscles surrounding both the mouth and eyes. Previous research shows that positive emotions can help during times of stress and that smiling can affect emotion; however, the work of Kraft and Pressman is the first of its kind to experimentally manipulate the types of smiles people make in order to examine the effects of smiling on stress.

The researchers recruited 169 participants from a Midwestern university. The study involved two phases: training and testing. During the training phase, participants were divided into three groups, and each group was trained to hold a different facial expression. Participants were instructed to hold chopsticks in their mouths in such a way that they engaged facial muscles used to create a neutral facial expression, a standard smile, or a Duchenne smile. Chopsticks were essential to the task because they forced people to smile without them being aware that they were doing so: only half of the group members were actually instructed to smile.

For the testing phase, participants were asked to work on multitasking activities. What the participants didn't know was that the multitasking activities were designed to be stressful. The first stress-inducing activity required the participants to trace a star with their non-dominant hand by looking at a reflection of the star in a mirror. The second stress-inducing activity required participants to submerge a hand in ice water.

During both of the stressful tasks, participants held the chopsticks in their mouth just as they were taught in training. The researchers measured participants' heart rates and self-reported stress levels throughout the testing phase.

The results of the study suggest that smiling may actually influence our physical state: compared to

participants who held neutral facial expressions, participants who were instructed to smile, and in particular those with Duchenne smiles, had lower heart rate levels after recovery from the stressful activities. The participants who held chopsticks in a manner that forced them to smile, but were not explicitly told to smile as part of the training, also reported a smaller decrease in positive affect compared to those who held neutral facial expressions.

These findings show that smiling during brief stressors can help to reduce the intensity of the body's stress response, regardless of whether a person actually feels happy.

“The next time you are stuck in traffic or are experiencing some other type of stress,” says Pressman, “you might try to hold your face in a smile for a moment. Not only will it help you ‘grin and bear it’ psychologically, but it might actually help your heart health as well!”

###

For more information about this study, please contact: Tara Kraft at [kraft.tara@gmail.com](mailto:kraft.tara@gmail.com) or Sarah Pressman at [pressman@ku.edu](mailto:pressman@ku.edu).