Excerpt from Chapter 3 of *How to Study in College*, 11th edition, by Walter Pauk and Ross J. Q. Owens. Boston: Wadsworth Cengage, 2014, pp. 76-77.

Improve Your Attitude

You can't turn away disaster simply by keeping a smile on your face, but there are now abundant indications that your overall attitude can have a powerful influence on the out- come of potentially upsetting or stressful situations. The first evidence was offered near the end of the nineteenth century, when American philosopher and psychologist William James and Danish psychologist Carl Lange simultaneously developed a remarkable theory of emotion. You don't cry because you're sad, they suggested. You're sad because you cry. This revolutionary reversal of the apparent cause and effect of emotions briefly sent the scientific community into an uproar. As the twentieth century progressed, the controversial proposal, known as the James–Lange theory, was scoffed at by most members of the mainstream scientific community and was advocated instead by "inspirational" writers and speakers such as Dr. Norman Vincent Peale, who championed the virtues of "positive thinking." Now the James–Lange theory has been vindicated, and Peale's ideas, bolstered by recent scientific evidence, have garnered mainstream defenders.

As part of a study conducted by Paul Ekman, Robert W. Levenson, and Wallace V. Friesen from the department of psychiatry at the University of California, San Francisco, subjects were given specific instructions for contracting various facial muscles to imitate six basic emotions: happiness, sadness, disgust, surprise, anger, and fear.¹ Instead of being told, for example, to "look scared," the subject was instructed to "raise your brows and pull them together, now raise your upper eyelids and stretch your lips horizontally, back toward your ears."² Expressions were held for ten seconds, while electronic instruments measured the subjects' physiological responses.

The results were fascinating. Simply imitating an emotional expression was enough to trigger the physiological changes normally associated with that emotion. The most interesting contrast was between expressions for anger and for happiness. The average subject's heart rate and skin temperature increased more with anger than they did with happiness. Yet the subjects weren't truly angry or happy: They were just imitating the expressions associated with the two emotions. In another experiment, two groups of students were asked to look at the same set of cartoons. Members of the first group were instructed to view the cartoons while holding a pencil between their teeth with the eraser pointing to their right and the point to their left, a posture that forced their face into a smile. Members of the second group held the pencil in their mouth with their lips around the eraser and the point extending directly out of their mouths, creating a pursed-lipped frown. Neither group was aware of their artificially created facial expressions. And yet when asked to rate the humor of the cartoons, the "smiling" group found the drawings funnier than the "frowning" group did.³

We can conclude from these studies that simply putting on a happy face may make you feel happier and that taking a dim or overly pessimistic view can lead to the discouraging outcome you expected. But managing stress shouldn't simply be a fuzzy-headed smile-at-all-your-troubles strategy. Improving your attitude should be done systematically by learning to relax, by improving your self-esteem, and, above all, by taking control of your life.

¹ Paul Ekman, Robert W. Levenson, and Wallace V. Friesen, "Autonomic Nervous System Activity Distinguishes Among Emotions," Science 221 (1983): pp. 1208–1210.

² Ibid, p. 1208.

³ Daniel Kahneman, *Thinking, Fast and Slow* (New York: Farrar, Straus, and Giroux, 2011), p. 54.