

# **embodied cognition: muscle & willpower**

this handout with link to the research study was posted to [www.stressedtozest.com](http://www.stressedtozest.com) on 22.02.11

## **introduction:**

Lying very comfortably in my warm bed early this morning, I knew I wanted to get up but it was hard to do. I waited a little, then tightened my right hand into a blade shape, "cutting through", and got up simply and easily. Fascinatingly tightening almost any muscle group would probably have helped in "boosting my willpower" to get over the obstacle of inertia and short term comfort in order to achieve a longer term gain. Hung & Labroo have recently published on the results of a series of very interesting experiments exploring this muscle tension/willpower boosting effect:

Hung, I. W. and A. A. Labroo (2011). *"From firm muscles to firm willpower: Understanding the role of embodied cognition in self-regulation."* Journal of Consumer Research. Published online 25<sup>th</sup> October 2010. To be published in the journal April 2011. [Link to publication]

*Across five studies, we show that firming one's muscles can help firm willpower and firmed willpower mediates people's ability to withstand immediate pain, overcome tempting food, consume unpleasant medicines, and attend to immediately disturbing but essential information, provided doing so is seen as providing long term benefits. We draw on theories of embodied cognition to explain our results, and we add to that literature by showing for a first time that our bodies can help firm willpower and facilitate self-regulation essential for the attainment of long-term goals.* The journal's press release about this research reads: *The next time you feel your willpower slipping as you pass that mouth-watering dessert case, tighten your muscles. A new study in the Journal of Consumer Research says firming muscles can shore up self-control. Authors Iris W. Hung (National University of Singapore) and Aparna A. Labroo (University of Chicago) put study participants through a range of self-control dilemmas that involved accepting immediate pain for long-term gain. In one study, participants submerged their hands in an ice bucket to demonstrate pain resistance. In another, participants consumed a healthy but awful-tasting vinegar drink. In a third experiment, study participants decided whether to look at disturbing information about injured children devastated by an earthquake in Haiti and donate money to help. And in a fourth study, researchers observed actual food choices people made as they shopped for lunch at a local cafeteria. (The fifth study also involved healthy dietary choice). "Participants who were instructed to tighten their muscles, regardless of which muscles they tightened – hand, finger, calf, or biceps – while trying to exert self control demonstrated greater ability to withstand the pain, consume the unpleasant medicine, attend to the immediately disturbing but essential information, or overcome tempting foods," the authors write. The authors found that the muscle tightening only helped when the choice aligned with the participants' goals (for example, to have a healthier lifestyle). They also found that the tightening of muscles only helped at the moment people faced the self-control dilemma. (If they did it beforehand, they felt depleted by the time it was time to make a choice.) For example, in one study, health-conscious participants drank more of a health tonic (one part vinegar, 10 parts water) while they were tightening their muscles and drinking the healthy tonic. Those who were less health conscious were not affected by muscle tightening. "The mind and the body are so closely tied together, merely clenching muscles can also activate willpower," the authors write. "Thus simply engaging in these bodily actions, which often result from an exertion of willpower, can serve as a non-conscious source to recruit willpower, facilitate self-control, and improve consumer wellbeing."*

## **practical implications:**

Try this for yourself! Experiment. Which muscle groups can you tighten in easy, unobtrusive, effective ways? Does this help in situations where you could do with a willpower boost? It works for me and it's kind of fun to do.

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