A sigh increases motivation for difficult and monotonous tasks: The effect of one-time voluntary brief exhalation on relief and achievement needs

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We tested possible intrapersonal effects of a sigh as a psychological “resetter/rebooter.” Fifty-eight undergraduates were randomly assigned to a sigh or a normal exhalation (control) group. We asked participants on each task to model the experimenter demonstrating how to exhale air into a small plastic bag for breathing manipulation under the pretext that we were interested in the exhaled gas in stressful situations. Results revealed that the sigh group did not experience more relief (as shown by prolonged reaction time) after exposure to threat stimuli, but showed more persistence on a highly-difficult puzzle task ($p = .03$, $d = .62$) and more willingness to continue working on a monotonous task ($p < .10$, $d = .48$), than the normal exhalation group. A sigh may have an adaptive function to motivate further work; although it may not induce relief-suggesting that a “sigh of refresh” is a voluntary but a “sigh of relief” is an involuntary response.

Keywords: breathing techniques, emotion, embodiment, self-regulation, respiration.