

Understanding procrastination through action control

Ever been down the procrastination rabbit hole and wondered why some people are able to stop procrastinating and get the job done? Most of us have procrastinated in our life and have experienced negative consequences by doing so. We continually ignore and postpone working on an important task or deadline and distract ourselves in enjoyable pursuits, which scientists call a lack of action control. Action control proposed by Julius Kuhl outlines the ability to react and regulate our emotions during certain situations.⁴ The theory defines two different orientations: action-oriented people capable of self-regulating their thoughts and emotions and state-oriented people who lack this ability to self-regulate and complete objectives.⁶ This implies that people who are action-oriented are less affected by stress and outcomes of an action.^{1 2}

Studies show that the size of the right amygdala is related to action control and suggest that we can overcome the state-oriented deficiency through meditation and mindfulness. In a study conducted by Schlüter and team, 266 healthy adults were asked to complete survey questions related to procrastinative tendencies. They partook in imaging (fMRI and T1 weighted high-resolution MRI) for functional connectivity analysis and to identify gray and white matter sections of the brain scans respectively. Upon analyzing the results, the researchers found a negative correlation between the volume of the amygdala and action orientation. This discovery is paramount to understanding procrastination since the amygdala converts sensory data into the memory of fears. This becomes a basis of decision-making when the significance of a threat or the danger of not doing a task needs to be evaluated.^{2 3} Another study by Gupta, et al. showed that amygdalas with lesions cause bad decision making and the inability to improve succeeding decisions.¹⁰ Meditation relates to the amygdala since it benefits cognitive functions such as “attentional networks, emotional control and self-awareness”¹¹ which plague procrastinators.

Kuhl defined six different strategies to overcome procrastinative tendencies. These strategies include focusing on the information needed for current tasks, regulating the amount of work done, controlling emotions that can interfere with goals, motivating yourself which strengthens your ability to achieve your goals, optimizing the environment in which you work, and memorization of information relevant to the current task.⁴ Not only does meditation help strengthen these six strategies, but also multiple MRI studies have shown that meditation also decreases the size of the amygdala allowing for better emotional and fear control which in turn allows for better action control and less procrastination.^{8 5} Meditation puts your mind in a serene state and regulates your emotions.⁹ In another study by Gotink and team, researchers “observed that the meditation and yoga group had a smaller right amygdala” and “stress reduction has been associated with less amygdala volume.”⁷ Don’t fall into the alluring trap of the untested online learning environment that may not feel like a regular school year during the Covid pandemic, make a plan to overcome procrastination by exploring meditation techniques.

References

- [1] Menec, V.H. et al. (1994). Action Control, Motivation, and Academic Achievement. Retrieved from <https://files.eric.ed.gov/fulltext/ED368991.pdf>
- [2] Schlüter, C. et al. (2018). The Structural and Functional Signature of Action Control. Retrieved from https://www.researchgate.net/publication/327081215_The_Structural_and_Functional_Signature_of_Action_Control
- [3] Thye, M. et al. (2016). Meditation and Procrastination. Retrieved from https://www.researchgate.net/publication/310742411_Meditation_and_Procrastination
- [4] Kuhl, J. (1984). Volitional Aspects of Achievement Motivation and Learned Helplessness: Toward a Comprehensive Theory of Action Control. Retrieved from <https://www.sciencedirect.com/science/article/pii/B9780125414135500073>
- [5] Powell, A. (2018). Researchers study how it seems to change the brain in depressed patients. Retrieved from <https://news.harvard.edu/gazette/story/2018/04/harvard-researchers-study-how-mindfulness-may-change-the-brain-in-depressed-patients/>
- [6] Kuhl, J. (2008). A Theory of Self-regulation: Action versus State Orientation, Self-discrimination, and Some Applications. Retrieved from [https://www.researchgate.net/publication/229629660_A_Theory_of_Self-regulation_Action_versus_State_Orientation_Self-discrimination_and_Some_Applications#:~:text=Interindividual%20differences%20in%20volition%20have,theory%20\(Kuhl%2C%201992\)%20.&text=...-,The%20theory%20specifies%20psychological%20processes%20that%20execute%20an%20intention%2C%20defend,%2C%20%26%20Koole%2C%202006\).](https://www.researchgate.net/publication/229629660_A_Theory_of_Self-regulation_Action_versus_State_Orientation_Self-discrimination_and_Some_Applications#:~:text=Interindividual%20differences%20in%20volition%20have,theory%20(Kuhl%2C%201992)%20.&text=...-,The%20theory%20specifies%20psychological%20processes%20that%20execute%20an%20intention%2C%20defend,%2C%20%26%20Koole%2C%202006).)
- [7] Gotink, R. et al. (2018). Meditation and yoga practice are associated with smaller right amygdala volume: the Rotterdam study. Retrieved from <https://link.springer.com/article/10.1007/s11682-018-9826-z#:~:text=Discussion,compared%20to%20those%20not%20practicing.>
- [8] Innes, K. et al. (2016). Effects of Meditation versus Music Listening on Perceived Stress, Mood, Sleep, and Quality of Life in Adults with Early Memory Loss: A Pilot Randomized Controlled Trial. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5649740/>

[9] Desbordes, G. et al. (2012). Effects of mindful-attention and compassion meditation training on amygdala response to emotional stimuli in an ordinary, non-meditative state. Retrieved from https://www.frontiersin.org/articles/10.3389/fnhum.2012.00292/full?source=post_page-----efb608794707-----

[10] Gupta, R. et al. (2010). The amygdala and decision making. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3032808/>

[11] Tsai, et al. (2018). Meditation Effects on the Control of Involuntary Contingent Reorienting Revealed With Electroencephalographic and Behavioral Evidence. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5962705/>