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A Study on the Relationship Between Stimulated Oxytocin and Morality

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Oxytocin is commonly referred to as the love hormone due to its function in maternal bonding and breastfeeding, but research suggests that it plays important roles in other processes. It is believed to be involved in trust formation and increasing generosity (Zak et al., 2007). Other studies have suggested that oxytocin, when applied to moral decision making, reduces uncertainty (Preckel et al., 2015). Our study hypothesized that participants that are exposed to the oxytocin stimulus will score more extremely either from a rational utilitarianism or an emotional (deontological) perspective. To test our hypothesis, 50 participants, consisting of 25 in a control group and 25 in an experimental group, were tested on their moral decision making. Participants were asked to take a pretest that consisted of 6 complex moral dilemmas. Participants responded to these dilemmas on a sliding scale ranging from “Forbidden” to “Obligatory” with scores close to 0 indicating more emotional decision-making while scores closer to 6 indicate rational utilitarian decision-making. After the pretest, participants were then randomly assigned to watch either a neutral 10 minute video of dominoes falling, which represented the control group, or a 10 minute guided meditation video intended to stimulate the release of oxytocin. Studies regarding the relationship between oxytocin and meditation have shown that meditation can stimulate the release of oxytocin (Bellosta-Batalla et al., 2020). After watching the video, participants took a posttest consisting of 6 more moral dilemmas similar to those in the pretest.

Zak, P. J., Stanton, A. A., & Ahmadi, S. (2007). Oxytocin Increases Generosity in Humans.

PLoS ONE, 2(11), e1128. <https://doi.org/10.1371/journal.pone.0001128>

Katrin Preckel, Dirk Scheele, Monika Eckstein, Wolfgang Maier, René Hurlemann, The influence of oxytocin on volitional and emotional ambivalence, *Social Cognitive and Affective Neuroscience*, Volume 10, Issue 7, July 2015, Pages 987–993, <https://doi.org/10.1093/scan/nsu147>

Bellosta-Batalla, M., Blanco-Gandía, M., Rodríguez-Arias, M., Cebolla, A., Pérez-Blasco, J., & Moya-Albiol, L. (2020). Brief mindfulness session improves mood and increases salivary oxytocin in psychology students. *Stress and Health*, 36(4), 469–477. <https://doi.org/10.1002/smi.2942>

