



Course

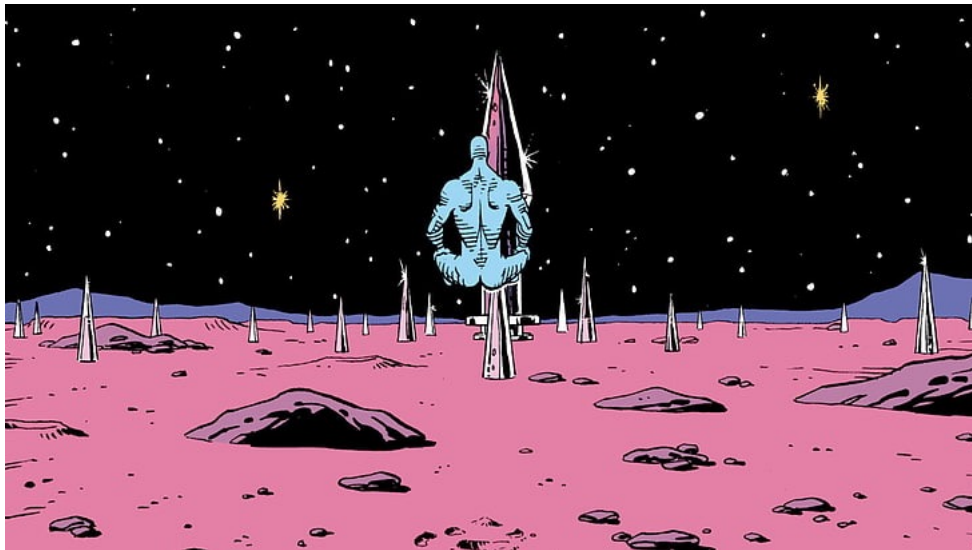
Visual Perception and Psychology

Presentation Title

Visual Perception Intensification with Psychedelics

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- 🍄 Psychedelic perceptual changes are primarily derived from agonism of the serotonergic 5-HT_{2A} receptor (5-HT_{2AR}) (Glennon, Titeler, & McKenney, 1984)
- 🍄 Psychedelic-induced visual effects can occur with eyes-open or eyes-closed (Cott & Rock 2008)
- 🍄 These visualisations are identified as complex imagery and have been associated with visual associative connectivity (N. Dijkstra, Bosch, & van Gerven, 2017)
- 🍄 Psychedelics induce inhibitory action to visual brain region inputs and reduced effective connectivity effect size between.
- 🍄 Psychedelics' ability to inhibit and decrease the gain of sensory connectivity suggests sensory deprivation may enhance endogenous signals and underlie closed-eye imagery. (Stoliker D. et al, 2022)

Cott, C., & Rock, A. (2008). Phenomenology of N,N-Dimethyltryptamine Use: A Thematic Analysis. *J. Sci. Explor.*, 22.

Dijkstra, N., Bosch, S. E., & van Gerven, M. A. (2017). Vividness of Visual Imagery Depends on the Neural Overlap with Perception in Visual Areas. *The Journal of Neuroscience*, 37(5), 1367-1373. doi:10.1523/jneurosci.3022-16.2016

Glennon, R. A., Titeler, M., & McKenney, J. D. (1984). Evidence for 5-HT₂ involvement in the mechanism of action of hallucinogenic agents. *Life Sci*, 35(25), 2505-2511. doi:10.1016/0024-3205(84)90436-3

Stoliker, D., Anticevic, A., Vollenweider, F. X., Egan, G. F., Preller, K. H., & Razi, A. (2022c). Neural mechanisms of imagery under psilocybin. medRxiv. <https://doi.org/10.1101/2022.09.07.22279700>