# "Tripping Out" to Help: Prosocial Effects of Virtually Simulated Psychedelic Experiences



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# Background

- Psychedelic experiences are linked to prosocial outcomes like *empathy* and *altruism* (Rodriguez Arce & Winkelman, 2021; Holze et al., 2021)
- Legal and ethical restrictions make psychedelic research challenging, so virtual reality (VR) can be used to simulate these experiences (Glowacki et al., 2022)
- VR simulations may offer broader insights across psychedelics, compared to studies using only one substance

# Psychedelic Use Empathy Altruism

# Hypotheses

- **H1**: Participants in the psychedelic VR experience condition will report stronger altruistic behavior than participants in the control VR experience condition.
- **H2**: The main effect of virtual reality experience will be moderated by trait emotional empathy.

### Method

- Between-subjects design with virtual reality experience type as the independent variable and altruistic behavior as the outcome variable
- Participants are randomly assigned to 1
   of 2 VR experiences (Psychedelic, Figure
   1; Control, Figure 2).
- Following the VR experience, participants complete a manipulation check and a measure of empathic concern.
- Participants are then asked to participate in an ostensible second study on behalf of another participant. They are told the amount of SONA credit the other participant receives depends on how long they spend completing a transcription task.
- Time spent completing the second study = altruism score (# of mins 0-15).

# Immersive Stimuli (IV)

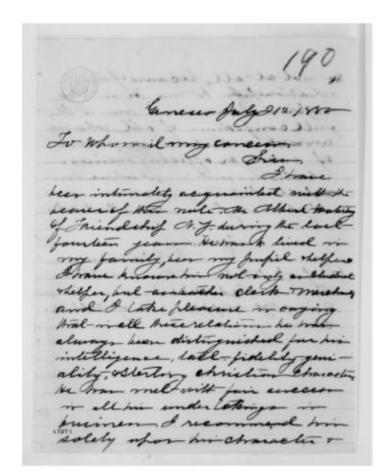


Figure 1. Psychedelic Experience



Figure 2. Control Experience

# Transcription Task (DV)



Use the textbox below to transcribe the contents of the handwritten document the best you can.

# Limitations

- Differences among researchers in presenting script
- Small sample size
- Not a blind study
- Ecological validity

# Discussion

- 1. By simulating a psychedelic experience, this study can help bridge the gap between the correlational nature of psychedelic research and ethical challenges posed by true psychedelic administration
- 2. If the hypotheses are supported, the findings can provide valuable insight into how virtually simulated psychedelic experiences may foster prosocial behavior, contributing to the growing body of literature on the social effects of psychedelic experiences

### References

Glowacki, D. R., Williams, R. R., Wonnacott, M. D., Maynard, O. M., Freire, R., Pike, J. E., & Chatziapostolou, M. (2022). Group VR experiences can produce ego attenuation and connectedness comparable to psychedelics. *Scientific Reports*, *12*(1). <a href="https://doi.org/10.1038/s41598-022-12637-z">https://doi.org/10.1038/s41598-022-12637-z</a>

Holze, F., Avedisian, I., Varghese, N., Eckert, A., & Liechti, M. E. (2021). Role of the 5-HT2A Receptor in Acute Effects of LSD on Empathy and Circulating Oxytocin. *Frontiers in Pharmacology*, *12*, 711255–711255. <a href="https://doi.org/10.3389/fphar.2021.711255">https://doi.org/10.3389/fphar.2021.711255</a>

Arce, J., & Winkelman, M. (2021). Psychedelics, sociality, and Human evolution. *Frontiers in* 

Psychology, 12. <a href="https://doi.org/10.3389/fpsyg.2021.729425">https://doi.org/10.3389/fpsyg.2021.729425</a>