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Exploring factors that shape psychedelic experiences and outcomes

Background

Psychedelics, both classic (e.g., psilocybin, LSD) and non-classic (e.g., ketamine, MDMA), show **growing promise as interventions for mental health, with evidence suggesting potential benefits for depression, anxiety, and other stress-related conditions**. Despite increasing clinical interest, **individual responses can be highly variable, and the factors that determine positive, neutral, or adverse outcomes remain poorly understood**.

Observational research in naturalistic settings — where people use psychedelics outside formal clinical settings — provides a valuable way to explore how demographic, psychological, and contextual variables influence these effects. Such studies can identify predictors of outcomes (e.g., emotional wellbeing, cognitive performance, creativity, connectedness to nature), and can inform hypotheses for both clinical research and mechanistic studies.

Aims and Methods

This project will **investigate predictors of emotional, cognitive, or experiential outcomes in naturalistic psychedelic use**. The research will primarily involve online questionnaires, either cross-sectional to screen for candidate predictors or longitudinal to track changes over time. To capture specific aspects a subset of participants may also take part in qualitative interviews. Together, these approaches allow the identification of psychological, social, and contextual factors that relate to individual outcomes.

Relevance

Understanding predictors of outcomes in real-world psychedelic use is **important for public health and for informing safer, more effective use**. The findings can guide interventions, suggest hypotheses for experimental or mechanistic studies, and

provide insights into factors shaping emotional, cognitive, and experiential responses to psychedelics.

Training

The student will gain experience in **survey design, participant recruitment, quantitative and qualitative analysis**. They will also receive training in ethical research with human participants and in interdisciplinary approaches to studying human cognition and experience.

The student will be embedded in the [Learning and Memory Processes Centre](#) and [Centre for Research into Inner Experience](#), providing an interdisciplinary environment that bridges psychology, neuroscience, and phenomenology.

Suitable for

PhD and MSc by Research (MRes) students.

References

- Roseman, L., Nutt, D. J., & Carhart-Harris, R. L. (2018). Quality of acute psychedelic experience predicts therapeutic efficacy of psilocybin for treatment-resistant depression. *Frontiers in Pharmacology*, 8, 974. <https://doi.org/10.3389/fphar.2017.00974>
- Goodwin, G. M., Aaronson, S. T., Alvarez, O., Arden, P. C., Baker, A., Bennett, J. C., Bird, C., ... Malievskaia, E. (2022). Single-dose psilocybin for a treatment-resistant episode of major depression. *The New England Journal of Medicine*, 387, 1637–1648. <https://doi.org/10.1056/NEJMoa2206443>
- Evans, J., Robinson, O. C., Argyri, E. K., Suseelan, S., Murphy-Beiner, A., McAlpine, R., Luke, D. R., Michelle, K., & Prideaux, E. (2023). Extended difficulties following the use of psychedelic drugs: A mixed methods study. *PLOS ONE*, 18(10), e0293349. <https://doi.org/10.1371/journal.pone.0293349>