

Stanford Psychedelic Science Group

presents:



On the fallibility of placebo control and how to address it: a case study in psychedelic microdosing

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Tuesday, May 31
6pm PT

✦ In person: **Li Ka Shing 130** ✦
Light refreshments afterward

ABSTRACT:

Microdosing is the practice of regularly using low doses of psychedelic drugs. Using a novel 'self-blinding' paradigm, we conducted the largest placebo-controlled trial on psychedelics to-date (n=191) to evaluate the benefits of microdosing. Small but significant microdose vs. placebo differences were observed; however, the trial's blinding quality was weak, as participants guessed correctly their drug allocation in 72% of the cases. To account for this in the interpretation of our results, we developed a novel analytical technique called Correct Guess Rate Curve to estimate the outcome of a hypothetically perfectly blinded trial based on data from an imperfectly blinded trial. Using CGRC we show that the observed placebo vs. microdose differences are likely to be false positive findings, created by the combination of weak blinding and positive expectancy. Beyond its implications for microdosing, our results suggest that placebo-controlled studies that do not assess blinding quality are more fallible than conventionally assumed, which has consequences for evidence-based medicine and numerous public health policies.

BIO:

Balázs studied physics at Imperial College and then earned a PhD in computational neuroscience from the University of Edinburgh. He became involved with psychedelic science in 2016, when he collaborated with the Global Drug Survey to show that neuroimaging studies overestimate the harm of recreational MDMA use. He invented 'self-blinding', a novel methodology that enables self-experimenters to incorporate placebo control into their experimentation without clinical supervision. Using this methodology, Balázs designed and lead the self-blinding microdose study described above. Balázs currently investigates the intersection of placebo effects and psychedelic medicine, while also continuing to setup new citizen science initiatives using the self-blinding methodology.