



LSD ENHANCES SUGGESTIBILITY IN HEALTHY VOLUNTEERS

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What is this study about?

Suggestibility refers to an individual's susceptibility or response to suggestion. Our study focused on 'primary suggestibility', the induction of thoughts and actions via suggestions.

Why did we do this study?

- Suggestibility has been found to play an important role in treatment of some conditions. Hypnotic suggestion can treat pain, and suggestibility may play a role in psychotherapy. The ability of LSD to enhance suggestibility was first noted by therapists working with LSD in the 1950s and 1960s.
- This is the first study since the Prohibition to study effects of LSD on suggestibility in a modern, placebo-controlled study. Another objective was to test safety, find the optimal dose for the subsequent neuroimaging study and to check that LSD is well-tolerated.

We wanted to know: What effect would LSD have on suggestibility?

What did we find?

1. LSD administered in a supportive clinical environment was **SAFE and WELL TOLERATED**

2. Even at the moderate doses used, **LSD ROBUSTLY ENHANCED SUGGESTIBILITY**

- The vividness/realism of suggested scenarios people were asked to imagine was significantly higher on LSD, compared to placebo.

3. Importance of **PERSONALITY TRAITS**:

- The degree of this enhancement correlated with having a conscientious personality.
- Conscientiousness is considered to be related to 'ego' control. It is interesting that people who were most influenced under LSD were those who scored highly on this personality trait, possibly supporting the inference that LSD facilitates suggestibility by temporarily suspending the (very human) drive to maintain control of one's mind and environment.

What did we do?

We gave 10 people either **LSD** (40 to 80µg intravenous) or **placebo** (saline) on 2 separate days.

On each day, they then completed **suggestibility tasks** and **self-report questionnaires**.

- **Creative Imagination Scale** = Participants were asked to imagine different scenarios such as their outstretched arm becoming heavier, drinking cool refreshing water, that time becomes distorted, etc. We asked participants to rate the intensity of these suggested effects.
- **Mental Imagery Test** = Participants were asked to imagine, with their eyes closed, a succession of sensory experiences such as the taste of honey or the smell of freshly cut grass.
- **Personality traits** were measured using a self-report personality scale (NEO-FFI).

About the research team

Amanda Feilding is the founder and director of the Beckley Foundation. She and David Nutt are Co-Directors of the Beckley/Imperial Research Programme. Robin Cahart-Harris is the Programme's lead investigator.

Why is this important?

- The importance of prior expectations ('set') and environment ('setting') in determining the nature of psychedelics experience is often emphasised.
- However, in the clinical context, another variable is important – *the interpretation*. Being aware of the influence of suggestion and being able to take this variable into consideration are very important in developing optimal psychedelic-assisted therapies.
- The influence of suggestion in reports of psychedelic-induced mystical or religious experiences deserves more investigation, since the same neurobiological state can be interpreted as profound yet secular by one individual, but mystical by another.

