

# Are mystical experiences key to the therapeutic effects of psychedelics?

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# Psychedelics<sup>1</sup>



Psilocybin







LSD (lysergic acid diethylamide)



DMT (*N*,*N*-Dimethyltryptamine) / Ayahuasca



## Single-dose psilocybin-assisted therapy in major depressive disorder: a placebo-controlled, double-blind, randomised clinical trial

Robin von Rotz,<sup>a,</sup>\* Eva M. Schindowski,<sup>a</sup> Johannes Jungwirth,<sup>a</sup> Anna Schuldt,<sup>a</sup> Nathalie M. Rieser,<sup>a</sup> Katharina Zahoranszky,<sup>a</sup> Erich Seifritz,<sup>b</sup> Albina Nowak,<sup>b</sup> Peter Nowak,<sup>b</sup> Lutz Jäncke,<sup>c</sup> Katrin H. Preller,<sup>a,d</sup> and Franz X. Vollenweider<sup>a,d</sup>

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<sup>b</sup>Department of Psychiatry, Psychotherapy and Psychosomatics, Psychiatric Hospital, University of Zurich, Zürich, Switzerland <sup>c</sup>Division Neuropsychology, Department of Psychology, University of Zürich, Zürich, Switzerland ORIGINAL ARTICLE

The NEW ENGLAND JOURNAL of MEDICINE

### Trial of Psilocybin versus Escitalopram for Depression

Robin Carhart-Harris, Ph.D., Bruna Giribaldi, B.Sc., Rosalind Watts, D.Clin.Psy., Michelle Baker-Jones, B.A., Ashleigh Murphy-Beiner, M.Sc., Roberta Murphy, M.D., Jonny Martell, M.D., Allan Blemings, M.Sc., David Erritzoe, M.D., and David J. Nutt, M.D.

### **Priority Communication**

Lysergic Acid Diethylamide–Assisted Therapy in Patients With Anxiety With and Without a Life-Threatening Illness: A Randomized, Double-Blind, Placebo-Controlled Phase II Study

Friederike Holze, Peter Gasser, Felix Müller, Patrick C. Dolder, and Matthias E. Liechti

#### Psychological Medicine

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**Original Article** 

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## Rapid antidepressant effects of the psychedelic ayahuasca in treatment-resistant depression: a randomized placebo-controlled trial

Fernanda Palhano-Fontes<sup>1,2</sup>, Dayanna Barreto<sup>2,3</sup>, Heloisa Onias<sup>1,2</sup>, Katia C. Andrade<sup>1,2</sup>, Morgana M. Novaes<sup>1,2</sup>, Jessica A. Pessoa<sup>1,2</sup>, Sergio A. Mota-Rolim<sup>1,2</sup>, Flávia L. Osório<sup>4,5</sup>, Rafael Sanches<sup>4,5</sup>, Rafael G. dos Santos<sup>4,5</sup>, Luís Fernando Tófoli<sup>6</sup>, Gabriela de Oliveira Silveira<sup>7</sup>, Mauricio Yonamine<sup>7</sup>, Jordi Riba<sup>8</sup>, Francisco R. Santos<sup>9</sup>, Antonio A. Silva-Junior<sup>9</sup>, João C. Alchieri<sup>10</sup>, Nicole L. Galvão-Coelho<sup>5,11</sup>, Bruno Lobão-Soares<sup>5,12</sup>, Jaime E. C. Hallak<sup>4,5</sup>, Emerson Arcoverde<sup>2,3,5</sup>, João P. Maia-de-Oliveira<sup>2,3,5</sup> and Dráulio B. Araújo<sup>1,2</sup>

 Around two dozen modern studies suggest psychedelics may have therapeutic potential in treating, e.g., treatment-resistant depression and addiction, when combined with psychological support or psychotherapy in a carefully controlled, therapeutic setting<sup>23</sup>

### Research

JAMA Psychiatry | Original Investigation

Percentage of Heavy Drinking Days Following Psilocybin-Assisted Psychotherapy vs Placebo in the Treatment of Adult Patients With Alcohol Use Disorder A Randomized Clinical Trial

Michael P. Bogenschutz, MD; Stephen Ross, MD; Snehal Bhatt, MD; Tara Baron, MA; Alyssa A. Forcehimes, PhD; Eugene Laska, PhD; Sarah E. Mennenga, PhD; Kelley O'Donnell, MD, PhD; Lindsey T. Owens, MA; Samantha Podrebarac, MA; John Rotrosen, MD; J. Scott Tonigan, PhD; Lindsay Worth, MA

## **ClinicalTrials.gov**

### Search Results

Viewing 1-10 out of 96 studies

Showing results for: Other terms: psilocybin | Not yet recruiting, Recruiting studies

#### NOT YET RECRUITING RECRUITING NCT06141876 NCT06067737 Evaluation of Psilocybin-Assisted Psychotherapy in Treating Severe Depression Outpatient Buprenorphine Induction With Psilocybin for Opioid Use Disorder in Patients With PTSD Conditions Conditions Opioid Use Disorder Post-traumatic Stress Disorder Depression Locations Locations Baltimore, Maryland, United States Location not provided RECRUITING NOT YET RECRUITING NCT06378229 NEW NCT06399263 NEW Psilocybin for Hospitalized Patients With Treatment-resistant Depression Study of Psilocybin for Anorexia in Young Adults Conditions Conditions Treatment Resistant Depression Anorexia Nervosa Locations Locations Gent, Oost-Vlaanderen, Belgium San Francisco, California, United States NOT YET RECRUITING NCT06416085 Psilocybin-assisted Existential, Attachment and RelationaL (PEARL) Therapy for Patients With Advanced Cancer Conditions Stage IV Lymphoma Stage IV Melanoma Endocrine Cancer Show 2 more conditions Advanced Cancer Locations

<sup>©</sup> Toronto, Ontario, Canada Samuli Kangaslampi – ICP 2024 - 22/07/2024

*"I saw time falling into the future. I no longer existed"* 

*"a complete ripping out of myself into another form of being and reality"*  "[T]he rest of the universe just disappeared and all of a sudden, we were everything ... I actually felt like I was the world"

# (Finns' first experiences with psychedelics)<sup>6</sup>

"[P]silocybin can induce states of consciousness which are indistinguishable from, if not identical with, those experienced by mystics"

Walter Pahnke (1963)<sup>4</sup>

"[P]sychedelic substances reliably induce religious, spiritual, or mystical experiences, even in tightly controlled laboratory settings"

Yaden et al., 2017<sup>5</sup>

# Mystical Experiences Questionnaire<sup>7</sup>

## Mystical

- 4. Gain of insightful knowledge experienced at an intuitive level.
- 5. Feeling that you experienced eternity or infinity.
- 6. Experience of oneness or unity with objects and/or persons perceived in your surroundings.
- 9 Certainty of encounter with ultimate reality (in the sense of being able experience.
- 14. Freedom from the limitations of your personal self and feeling a unity or bond with what was felt to be greater than your personal self.
- 15. Sense of being at a spiritual height.
- 16. Experience of pure being and pure awareness (beyond the world of sense impressions).
- 18. Experience of the insights that "all is One".
- 20. Experience of oneness in relation to an "inner world" withing.
- 21. Sense of reverence.
- 23. You are convinced now, as you look back on your experience, that in what was really real).
- 24. Feeling that you experienced something profoundly sacred and holy.
- 25. Awareness of the life or living presence in all things.
- 26. Experience of the fusion of your personal self into a larger whole.
- 28. Experience of unity with ultimate reality.

## **Positive Mood**

- 2. Experience of amazement.
- 8. Feelings of tenderness and gentleness.
- 12. Feelings of peace and tranquility.
- 17. Experience of ecstasy.
- 27. Sense of awe or awesomeness.
- 30. Feelings of joy.

## Transcendence of Time and Space

- 1. Loss of your usual sense of time.
- 7. Loss of your usual sense of space.
- 11. Loss of usual awareness of where you were.
- 13. Sense of being "outside of" time, beyond past and future.
- 19. Being in a realm with no space boundaries.
- 22. Experience of timelessness.

## Ineffability

3. Sense that the experience cannot be described adequately in words.

10. Feeling that you could not do justice to your experience by describing it in words.

29. Feeling that it would be difficult to communicate your own experience to others who have not had similar experiences.

"[T]hose who experience the most profound mystical experiences invariably receive the greatest symptom improvement"

<sup>•</sup> David Nichols (2016)<sup>8</sup>

If that's the case... We should try to foster or facilitate mystical experiences in people if they are offered psychedelics for therapeutic purposes! E.g., Richards (2008)<sup>9</sup>; Gandy (2022)<sup>10</sup>

# Mystical experiences key to therapeutic effects?

For the first psychedelic experiences of Finns<sup>6</sup>:

 Level of mystical experience associated with positive changes in all areas of well-being surveyed, but strongest for positive changes in relationship with nature, in relationship with oneself, and in creativity

For most significant psychedelic experiences of French people<sup>11</sup>:

• Those with a complete mystical experience more likely to report improvements in relations with self and others, in psychological well-being, in the feeling of connection or proximity with nature, and in creativity



First Times Using a Psychedelic in Finland

Samuli Kangaslampi , Aino Hausen & Tarina Rauteenmaa



Validation of a French Version of the Mystical Experience Questionnaire with Retrospective Reports of the Most Significant Psychedelic Experience among French Users

Baptiste Fauvel, Samuli Kangaslampi, Lana Strika-Bruneau, Bruno Roméo & Pascale Piolino

# Mystical experiences key to therapeutic effects?

Association between mystical-type experiences under psychedelics and improvements in well-being or mental health – A comprehensive review of the evidence

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• Up to 2022, 36/44 identified studies found a link between mystical experiences under psychedelics and later improvements in well-being or mental health<sup>12</sup>

- More, and more unequivocal, evidence for this
  - a) among healthy people than in clinical populations, and
  - b) for changes in general well-being and life satisfaction, attitudes and behavior, and anxiety than for depression or other areas

Psychopharmacology https://doi.org/10.1007/s00213-020-05703-9

COMMENTARY

Uncovering psychological mechanisms mediating the effects of drugs: some issues and comments using the example of psychedelic drugs

Samuli Kangaslampi<sup>1</sup>

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1. Methodological problems in how psychological mechanisms of action have been studied in psychedelic research<sup>13</sup>

• Much to learn from psychotherapy research!

2. Is it ethical to cause mystical experiences in people? <sup>14 15 16</sup>

• Especially if they lead to changes in beliefs or worldviews?

Transformative experience and informed consent to psychedelic-assisted psychotherapy

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### Ethics and ego dissolution: the case of psilocybin

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### pubs.acs.org/ptsci

Consciousness, Religion, and Gurus: Pitfalls of Psychedelic Medicine Matthew W. Johnson\*

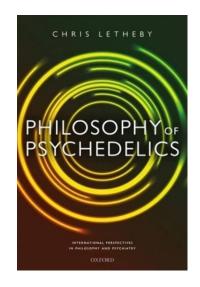
Cite This: ACS Pharmacol. Transl. Sci. 2021, 4, 578–581

Read Online

Viewpoint

3. Are we reliably measuring a distinct, well-defined unified phenomenon or construct reasonably called a mystical experience? <sup>17</sup>

 Mystical experiences, as defined and understood in psychedelic research, may be quite a culturally-loaded, perennialist, Christian-specific formulation<sup>18 19 20</sup>



BOOK REVIEW

Journal of Psychedelic Studies 2(1), pp. 1–4 (2018) DOI: 10.1556/2054.2018.003 First published online May 4, 2018

The psychedelic religion of mystical consciousness

William A. Richards Sacred Knowledge: Psychedelics and Religious Experiences Columbia University Press, New York, 2016, 244 pp. Hardback ISBN: 978-0-231-17406-0 Rick J. Strassman, MD



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www.psychologicalscience.org/PP

Mystical and Other Alterations in Sense of Self: An Expanded Framework for Studying Nonordinary Experiences

Ann Taves Department of Religious Studies, University of California, Santa Barbara

Psychedelic-induced mystical experiences: An interdisciplinary discussion and critique

Sharday Mosurinjohn<sup>1\*</sup>, Leor Roseman<sup>2</sup> and Manesh Girn<sup>3\*</sup>

<sup>1</sup>School of Religion, Queen's University, Kingston, ON, Canada, <sup>2</sup>Department of Brain Sciences, Centre for Psychedelic Research, Imperial College London, London, United Kingdom, <sup>3</sup>Department of Neurology and Neurosurgery, Montreal Neurological Institute, McGill University, Montreal, QC, Canada

4. Is the link to therapeutic effects **specific** to mystical-type experiences, in general or in some particular cases?

- Some studies suggest psychological insights and emotional breakthrough experiences may be even more linked to positive changes<sup>12 21</sup>
- There are other types of subjective content, other types of psychedelic experiences!

# Autobiographical psychedelic experiences

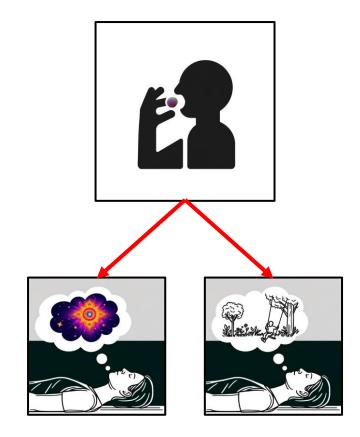
"[LSD] permitted a re-examination of significant experiences of the past, which sometimes were relived with frightening realism"

Busch & Johnson (1950)<sup>22</sup>

- Autobiographical (aka. psychodynamic) experiences recognized as one major type of experience in "psychedelic cartographies" over the decades <sup>9 23 24 25</sup>
- Largely absent from modern research<sup>26</sup>, but noted in qualitative work<sup>27 28 29</sup>
  - e.g., Gasser et al., 2015<sup>27</sup>: "(sometimes hypermnestic) reliving of incidents from the past"

# Conclusions

- Psychedelics occasion "mystical experiences" quite reliably this is really remarkable!
- High ratings on scales of mystical psychedelic experiences are commonly, though not universally, associated with positive changes in well-being and mental health
- Is fostering mystical experiences key to therapeutic use of psychedelics? There are major unresolved questions about
  - a) ethical issues involved,
  - b) the way we study and understand mystical experiences, and
  - c) whether other types of experiences may be as, or more, associated with therapeutic effects (for some indications<sup>30</sup>)



 Psychedelics also occasion other types of psychedelic experiences that warrant careful study - especially autobiographical experiences!

# Thank you!

# **Planning to take a psychedelic?**

## Help us understand the role of memories in psychedelic experiences!

## This scientific study involves

- Answering questions and questionnaires about yourself, your well-being and mental health, your memories, and your psychedelic experience, before and after taking a psychedelic for a total of 3 x 10–20 minutes.
- Reporting on mental health symptoms and adverse life events, which may arouse some negative emotions in you.
- No compensation for participating.

## You can take part if

- You are 18 years of age or older and fluent in English.
- You are planning to take a long-acting psychedelic like LSD, psilocybin mushrooms, or ayahuasca soon in any context.

This study has been approved by the Ethics Review Committee Psychology and Neuroscience at Maastricht University (ERCPN-278\_36\_02\_2024).

We do not condone, promote or encourage the use of psychedelics. Only take part in this study if you are going to take a psychedelic anyway.

The University cannot be held liable for possible adverse effects or inconveniences arising from the use of these drugs on your own initiative. Due to limited research, we cannot rule out that using psychedelics can negatively affect you in the short or long term.

More information and to participate: https://tinyurl.com/psmemory



Study coordinator: Dr. Samuli Kangaslampi Responsible researcher: Dr. Kim Kuypers

For questions, please contact fpn-pim\_p149@maastrichtuniversity.nl

## Maastricht University

Slides with references available at https://kangaslampi.net/icp2024.pdf Email me at samuli@kangaslampi.net

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