

# Psychedelic experiences disrupt routine thinking—and so has the coronavirus pandemic

May 18 2020, by Ron Shore

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Leaving predictability and entering into uncertainty is a threshold to transformation. Credit: Unsplash

The COVID-19 pandemic has resulted in the widespread disruption of our usual routines. The ambiguity of when it will end, how things will unfold and what will happen in the future has resulted in a collective liminal state, a kind of a waiting area on the threshold of change.



COVID-19 has undermined our usual expectations and assumptions. Evidence from my work on how our brains react to psychedelics tell me the transient anxiety—which occurs when expectations collapse—may yield benefits. To gain the benefits, we must be intentional in the viewing of this era as a transformational opportunity.

I have looked at how medium-to-high doses of psychedelics can help reset the brain, shaking it out of old patterns. I wonder if our current state of uncertainty could have similar impacts on the brain—a metaphorical psychedelic dose—for new insights, values clarification and a collective reset.

## **The brain is a prediction machine**

A recent study shows experiences with psychedelics such as psilocybin (also known as magic mushrooms) can have [disruptive impacts on our brains](#). Neuroimaging of the brain on psychedelics have revealed a state of chaos, or entropy and a [loss of synchronization of brain waves](#).

Entropy is a measure of uncertainty and randomness or disorder. British neuroscientist Karl Friston defines entropy as [a measure of uncertainty, the "average surprise."](#) Low entropy means, on average, that outcomes are relatively predictable.

In Friston's view, the [brain](#) is a prediction machine. We construct the future from the past. We make predictive inferences (conscious and unconscious) to conserve energy and simplify the interpretation of a continuous input of stimuli.

We gain mastery, but at the expense of novelty.

## **Disrupting the patterns**



Poor mental health often revolves around excessive rumination and repetition. Rumination is rigid, repetitive and negative thinking characterized by low entropy.

In 1949, McGill University psychologist Donald Hebb [predicted much of what modern neuroscience would go on to prove with neuroimaging technologies](#). Hebb's postulate—that the neurons that fire together, wire together—provides a summary of the way synaptic pathways bond and are reinforced by repetition.

This repetition and rumination robs the mind of flexibility, especially when attached to memories with heightened (positive or negative) emotional resonance. Repetition-habituated brains marinate in a soup of low novelty and lack of surprise, forecasting tomorrow to be much the same as today.

Psychedelics disrupt our repetitive or ruminative ways of thinking and [rewire brain communication patterns](#). The result is often an altered state of consciousness marked by transient confusion, followed by a high probability of novel, meaningful and possibly even mystical experiences.

When the rigid, top-down control of the ego is loosened, the [anarchy of the creative unconscious blooms](#).

## How psychedelics can help

Our research group at Queen's University recently completed a [review of existing studies on psilocybin-assisted therapy](#). From over 2,000 records, we found nine completed [clinical trials](#) with a total of 169 participants.





A sign that reads 'Magic Mushrooms' from the Smart-Zone in Amsterdam, Netherlands. Credit: Marcus Loke/Unsplash



Overall, the trials showed that most subjects safely tolerated these interventions and showed improved mental health. However, some experienced transient distress and post-treatment headaches. The trend suggests positive outcomes in various conditions such as obsessive-compulsive disorder, addiction, depression, psychological distress associated with life-threatening cancers and demoralization among long-term AIDS survivors.

In short, although psychedelics can be accompanied by known adverse experiences, trials seem to indicate that psilocybin is relatively safe (with the right supports and in a supportive setting) and has a marked ability to interrupt psychopathologies.

To ensure safety and support, the majority of psilocybin trials used the [PSI model \(preparation, session, integration\)](#) with multiple moderate-to-high-doses sessions happening in the company of trained therapists.

[Participants report experiences](#) of transient anxiety, distress and confusion, states of joy, interconnectedness, catharsis, forgiveness and wisdom experiences. In contrast to talk therapy, psychedelic sessions are experiential, meaning that we experience changed ways of both seeing and being in the world.

## Being OK with uncertainty

Mystical experiences have been reported both [by clinical trial subjects](#) and [by recreational psilocybin users](#). Mysticism can be thought of as an experience of absorption, a dissolution of separateness and a sense of deep connection. Absorption is the opposite of rumination.

Rumination carries you away on an eddy of self-referential and self-



containing thoughts, while when experiencing absorption, you leave behind your narrow sense of self, experiencing something greater that is both inside and outside of you.

The psychedelic experience is a classic [hero's journey](#). The hero leaves the comforts of home, faces disruption and challenges to their previous way of thinking and being, has profound and transformative experiences, and returns a changed person.

Leaving predictability and entering into uncertainty is a threshold to transformation.

## **When predictions fail, opportunities are born**

In one study, psilocybin trial subjects reported [feeling more deeply connected](#), open and relational as a result of their entropic, and often difficult, psychedelic experiences. In another study, they have been found to hold [less authoritarian political views and be more in touch with nature](#).

Participants in collective psychedelic rituals commonly experience feelings of [deep bond, kinship and even telepathy with other participants](#). I believe we may be in a similar moment during COVID-19.

COVID-19 has disrupted the normative habits of society. It has forced the economic machine to pause. It has forced many to reevaluate practices and priorities. In some cases, I believe it is dissolving our normal sense of human separateness (even though we are physically distanced).

Perhaps, like the liminal [psychedelic](#) state, the uncertainty in which we find ourselves in this moment will lead to more visions of what can be.



The future does not have to remain in the past.

Those of us with the luxury of space and time have an opportunity to reset, unbind our minds, quit repeating old patterns, experience anew what life can hold and to do better.

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