

Book Review

How to Change Your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence

by Michael Pollan

Plant-based psychedelics have been used for hundreds if not thousands of years for holistic healing and there remains an active culture of self-medication with psychedelics for mental health. Contrary to the alarmist campaigning that so negatively affected perceptions of psychedelics after the 1960s, naturalistic/observational, and population-based studies indicate a positive association between psychedelic drug use and mental health. In this captivating book, Michael Pollan takes us on a whistle stop tour of the world of psychedelic science with his own unique brand of engaged journalism ending with him taking part in a psychedelic therapy session.

Pollan takes us all the way back to the beginning of western civilisation, to the time of the Eleusinian Mysteries, a mass psychedelic ceremony carried out annually from 1600 BCE to 392 CE in Greece. All of your favourite Greeks; from Socrates, Plato, Aristotle to Plutarch and Hadrian, are reported to have taken part in these ceremonies, influencing their philosophies which would go on to shape the way we all think today.

Pollan then brings us to the birth of psychedelic research which began when Lysergic Acid Diethylamide (LSD) was first synthesised in 1938 at the Sandoz research labs in Switzerland by Dr. Albert Hofmann. Hofmann was isolating alkaloids from the ergot fungus. He discovered Ergometrine which is still used by obstetricians today to manage post partum haemorrhage. Another ergot-derived alkaloid, LSD-25 was only 70% as effective as Ergometrine for haemostasis, and so, was shelved. Until 5 years later when Hofmann accidentally spilt some on his skin and had the world's first LSD trip. In his memoir, he emphasized it as a “sacred drug”, saying “I see the true importance of LSD in the possibility of providing material aid to meditation aimed at the mystical experience of a deeper, comprehensive reality.”

The son of the head of the pharmaceutical department at Sandoz, Werner Stoll, was the first person to use LSD in a psychiatric environment, where he discovered that low doses allowed repressed material to surface more easily during psychotherapy. After Stoll published his findings in 1947, Sandoz marketed LSD under the trade name “Delysid” as a tool to aid the release of repressed material. Most of the initial research was focused on LSD as a treatment for alcohol addiction. Indeed, Bill Wilson, the founder of Alcoholics Anonymous, had sought to introduce LSD therapy into Alcoholics Anonymous in the 1950s.

More than 40,000 patients were administered LSD alongside therapy between 1950 and 1965, and more than a thousand scientific papers were published. Most of the trials were very poorly designed by today's standards however. The record was a complete muddle until 2012, when a meta-analysis that combined data from the six best randomized controlled studies done in the 1960s and 1970s (involving more than five hundred patients in all) found that indeed there had been a statistically robust and clinically “significant beneficial effect on alcohol misuse” from a single dose of LSD, an effect that lasted up to six months. “Given the evidence for a beneficial effect of LSD on alcoholism,” the authors concluded, “it is puzzling why this treatment has been largely overlooked.” (Krebs and Johansen, 2012).

A recent meta-analysis of 19 studies of psychedelics for mood disorders published between 1949 and 1973 found that 79% of patients showed ‘clinically judged improvement’ post treatment (Rucker et al, 2016).

In 1960's United States of America, LSD became mixed up with anti war protests and civil rights movements. In an effort to control the counter cultural revolution, Nixon launched the War on Drugs. LSD was classified as a Schedule 1 drug, declaring it to have no medical indications and to be unsafe for use, even under medical supervision, with a high potential for abuse. The year after, Sandoz stopped supplying LSD altogether and almost all LSD research was stopped.

In the midst of a global mental health crisis, the United States Food and Drug Administration have since pivoted to granting Psilocybin and MDMA ‘Breakthrough Status’, allowing them to accelerate through research trials, a status reserved for only the most promising and urgently needed medicines.

Pollan introduces us to the scientists at the forefront of this new wave of psychedelic research. We meet Robin Carhart Harris whose fascinating work with fMRI has identified the neural correlates of the psychedelic experience. We learn about the default mode network, a functional brain network that appears to operate as Freud's concept of the ego. Harris postulates that the Default Mode Network (DMN) receives information from our sensorium and presents a summarised, narrativised version to our conscious awareness. It is responsible for our cognitive biases, the unique perspective each of us has on the world, based on our lived experiences. Psychedelic medicines are Serotonin 2A agonists that switch off the inhibitory function of the DMN and allows the brain to become sensitive to new information and undergo neuroplastic change. Maladaptive cognitive biases that cause mental suffering can be revised to leave the participant with a more positive outlook on their life. Hence the title of this book, ‘How to Change Your Mind’.

When Pollan wrote about the meat industry he bought a cow. And when he writes about Psychedelic Science he decides to take magic mushrooms. Pollan is in his 60's and had never taken psychedelics before. He held strongly in his mind the ideas around drugs from the 1960's, that he would ‘lose his mind’ or try to jump off a roof. Pollan decides to challenge this stigma and gain first hand knowledge of these drugs. He has a life changing and life

affirming experience that forces him to change his mind about psychedelics. He leaves us with a question that is particularly pertinent to psychiatrists in today's climate, 'Are you ready to change your mind?'

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References

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