

## Can MDMA Change Sociopolitical Values? Insights From a Research Participant

### To the Editor:

There has been a resurgence of interest in the use of psychoactive drugs, especially psychedelics, to treat symptoms of anxiety and depression. In addition to relieving symptoms, these drugs reportedly can also produce lasting changes in personality and political and religious views, including increased openness and more liberal, more compassionate, and less authoritarian points of view (1–7). Yet, the psychological or neurobiological underpinnings of these changes are poorly understood. To what extent are these effects the result of expectancies and contextual factors? Which, if any, of the cognitive or emotional effects of the acute drug experience lead to lasting changes in values, beliefs, or personal priorities, and why do these changes tend to occur in the direction of openness and liberality? Further, can these drug effects shed light on how people acquire and hold beliefs in the first place?

Most reports of these lasting effects involve use of classic psychedelic drugs such as LSD, but similar effects have been reported with the entactogen MDMA (ecstasy) (6). Here, we describe a unique natural experiment, in which a research participant reported transformative effects after a single dose of MDMA. Notably, he received the drug under double-blind conditions, with no specific expectations: participants in this study on effects of MDMA on social touch were told that they might receive a stimulant, sedative, or placebo. After receiving MDMA (1.5 mg/kg), this participant reported significant insights and transformative thoughts regarding his racist beliefs as a leader of a white supremacist organization. The drug experience made him deeply question his values and biases. The participant had been a leader of a white supremacist organization and had recently experienced significant distress when his identity was publicly revealed on the Internet. After receiving the single dose of MDMA, the subject reported a transformative realization that “love is the most important thing,” and that “nothing matters without love.”

The following are excerpts from an interview with the subject several months after his experience.

*After college I found I wasn't doing as well as a lot of my friends ... I was kind of lost in life and started consuming right-wing content that had a rage element to it. [He became explicitly white nationalist when, looking at pro-Trump content on the internet, he would be redirected to anti-Semitic, right-wing content.]*

*To consume that content and post about it, you need to do it anonymously because there is a force of antifascists out there. When [I was doxxed, or exposed], I lost my job, everyone in my personal life cut me out, I had frequent panic attacks, lost weight. My whole future was really uncertain, but I wanted to stand firm as long as I could. I didn't just want to totally surrender until I had the experience in your study [italic added for emphasis]. ... I felt in that moment that all of my priorities in my life were just so messed up, the way I was interacting with*

*people, particularly people who are close to me. But there was also an almost euphoric feeling, a feeling of love, and I concluded that was the sort of feeling that I should strive to permeate across the world.*

Before addressing lasting changes in values that MDMA might induce, it is important to consider the acute subjective response to the drug. The subject reported euphoria, a feature of many dopaminergic stimulant drugs such as amphetamines. Yet, other stimulant drugs rarely produce such transformative experiences. Some of the acute effects may be mediated through serotonergic receptors. Although typical antidepressant drugs do not produce affective responses such as this, the sense of newfound meaning is a feature of classic serotonin-acting psychedelic drugs (8,9). Finally, the sense of love or interpersonal connectedness may be related to the drug's effects on the oxytocin system: MDMA increases oxytocin levels, which facilitates social bonding. Understanding the psychological processes and neural mechanisms underlying the acute emotional effects of MDMA may be a first step to understanding how the drugs produce lasting cognitive and emotional changes.

The observation that a pharmacological manipulation can moderate extremist political views raises questions about how the extremist views are acquired and sustained. If a single drug experience can lead an individual to question social values, does this suggest that there is a biological basis for hate-driven political views? For example, are extremist views fueled by fear, anger, and cognitive biases, and if so, might these be targets of pharmacological intervention?

*[The experience] made me realize that there's a different way of looking at things. ... different ways of perceiving life, the world. It made me realize my relationships with my family, friends, previous romantic relationships, the way I was carrying myself in those relationships was just [expletive] up.*

The participant's realizations and insights outlasted the acute effects. This is also reported with both psychedelic experiences and therapeutic use of MDMA, when insights achieved under the influence of the drug become integrated into the individual's future, sober thinking.

*I knew when I was under the influence of the drug that I had to reach out to antifa to get the dox down. But there was part of me that understood, empathized with them. I realized why they did what they did ... in addition to it showing you about human connection, I think [the drug] opens you up in a way. So I held off until that evening. But I did email them that evening and began a conversation. We're still conversing to this day hundreds of emails back and forth, about my life, about the guy who doxxed me and his life. That's been a really meaningful process talking to him.*

*I think particularly for people like me, these drugs could be very helpful because... some sort of change is necessary. But you can't just flip the switch and say, I no longer have these beliefs anymore.*

The participant reports that 8 months later, despite his progress, he has still not fully resolved his issues. He has difficulty maintaining the positive feelings he experienced during the drug experience in his daily life, and his ongoing therapy helps to strengthen and maintain the positive changes.

This case report offers some insights into the emotional experiences that can occur after using MDMA and how these experiences can influence a person's values and priorities. Acutely, the drug produces a range of emotional experiences, including increased openness, empathy, feelings of love, and changes in physiological sensation, sensory perception, and responsiveness to touch (10,11). In this case, some of these feelings led the participant to re-evaluate his personal values. The idea that a drug can produce such effects raises interesting questions about the biological basis of personal and perhaps political convictions.

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### Acknowledgments and Disclosures

The work was supported by the National Institutes of Health Grant No. DA02812 (to HdW).

The authors report no biomedical financial interests or potential conflicts of interest.

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Received Jan 16, 2021; revised Jan 25, 2021; accepted Jan 27, 2021.

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