



Narrative identity, rationality, and microdosing classic psychedelics

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ABSTRACT

Background: Microdosing involves ingesting a small dose of a classic psychedelic (e.g., LSD and psilocybin) at regular intervals for prolonged periods. The practice is said to reduce anxiety, improve mood, and offer several creative and practical benefits to users. Using the narrative identity theoretical framework, our aim was to explore the experiences of those who microdosed classic psychedelics. Specifically, we sought to understand how and why they began microdosing and how they made sense of their actions in the context of their conventional lives.

Methods: To understand the experiences of those who microdose classic psychedelics, we rely on data collected from semi-structured interviews with 30 people who had microdosed.

Results: Participants saw themselves as conventional citizens who microdosed for rational and instrumental purposes. They emphasized the rationality of microdosing by discussing (1) the practicality of their procurement and administration processes, (2) the connection between their microdosing practice and their general awareness in health and wellness, and (3) the benefits of the practice.

Conclusion: Participants described their microdosing in the context of embracing traditional middle-class values. This created social distance between themselves and those who use drugs recreationally. While people who use drugs recreationally typically construct boundaries by distancing themselves from symbolic others (i.e., “crackheads,” “meth heads,” “junkies”), microdosers constructed boundaries by emphasizing connections to conventional citizens who embrace middle-class values. This connection to conventional citizens allows them to normalize their drug use and facilitates persistence.

Introduction

Classic psychedelics, such as lysergic acid diethylamide (LSD) and psilocybin, are psychoactive substances that alter the user's perception, mood, and cognitive processes (Nichols, 2016). Although popular discourse associates the use of these substances with the counterculture and youth of the late 1960s, classic psychedelic use among humans predates written history (Johnson, Hendricks, Barrett, & Griffiths, in press). For the most part, people who use classic psychedelics believe that doing so leads to positive, life-changing experiences ranging from improved mental health to spiritual enlightenment (Carbonaro et al., 2016; Johnson, Garcia-Romeu, Johnson, & Griffiths, 2017; Lerner & Lyvers, 2006; Lyvers & Meester, 2012; Móró, Simon, Bárd, & Rác, 2011). These beliefs are consistent with an older body of literature, as well as a newer, growing empirical knowledge base (Johnson et al., in press). Indeed, contemporary scientists are seeking to determine the effectiveness of classic psychedelics in treating end-of-life distress, drug

addiction, and other mental health conditions (Hendricks, 2018; Johnson et al., in press). In general, findings suggest that classic psychedelics may confer numerous benefits for users.

In recent years there has been renewed interest in classic psychedelic use among the general public, particularly regarding the practice of microdosing, which involves ingesting small doses (i.e., doses that do not occasion mystical experiences typically associated with larger doses) of classic psychedelics at frequent intervals for a prolonged period. The purpose of microdosing is not to achieve unitive experience or ego dissolution from these substances; rather, people microdose classic psychedelics for a range of salubrious outcomes, including improving mood, heightening creativity, and reducing anxiety (Johnstad, 2018). Due to little clinical research on the practice it is difficult to determine the effectiveness of microdosing for improving mood or enhancing productivity among those who practice it. However, a handful of studies have shown at least some support for the effectiveness of microdosing classic psychedelics (Anderson et al., 2019; Prochazkova

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et al., 2018; Yanakieva et al., 2018)

Although research on those who microdose is increasing, there is limited data on the subjective experiences of those who do it. To date only one study has examined those who microdosed using qualitative methods (Johnstad, 2018). Using internet-mediated interviews, Johnstad (2018) provides a descriptive analysis of participants' motives and methods of microdosing. Participants reported that they experienced positive effects from microdosing, including therapeutic benefits (e.g., reduced anxiety and depression) and enhancement (e.g., increased energy, mood, and cognition), with very little side effects. This is a valuable first step in understanding those who microdose, but it does not offer a theoretical framework to explain how people make sense of the practice.

Thus, our aim is to use the theoretical framework of narrative identity to understand how people who microdose classic psychedelics make sense of their actions. Relying on data from semi-structured interviews with 30 people who had microdosed, we found that participants drew on traditional middle-class values in discussing their motives for microdosing and in determining their dosing schedules. Their discussions of microdosing aided in normalizing their drug use by emphasizing how it was simply a means to become better people and workers. We argue that such narrative work allowed participants to reject a deviant identity status often associated with drug use.

Narrative identity

Storytelling is the primary way that people construct personal identities (Gubrium & Holstein, 2000). The stories people tell are important for both explaining past behavior (e.g., as retrospective excuses and justifications) and as possible guides for future behavior (Presser & Sandberg, 2015). Within a narrative framework, stories are essential elements of culture that people use to interpret and justify behavior. In addition, stories shape, inspire, and uphold behavior. Within this perspective, people are thought to act out cultural stories when they engage in behaviors, including drug use (Presser, 2009). While narrative thought encompasses a variety of perspectives to study narratives and their importance for behavior, we rely on a strain of narrative thought that focuses on the role of narratives in creating personal and social identities (Loseke, 2007) when interpreting our findings.

According to Loseke (2007), narrative identity occurs at three levels: macro-level (cultural identities), meso-level (institutional and organizational identities), and micro-level (personal identities). Narratives at the macro- and meso-level shape cultural identities, which include "the imagined characteristics of disembodied types of people that simplify a complex world and construct symbolic boundaries around types of social actors" (Loseke, 2007: 663). The groups created with cultural narratives are broad social classifications of abstract actors who represent generic social types. When referring to people who use drugs, cultural narratives reflect the larger cultural assumptions about these people, which typically condemn those who use (Copes, 2016). Identity narratives at the micro-level are those that help shape personal identities. They are the specific ways that people construct personal self-understandings and present themselves publicly (Loseke, 2007). Personal narratives are created by taking abstract, depersonalized narratives (i.e., cultural and organizational narratives) and adding complexity and personal perspective to the narrative to make them specific to the person telling the story (Sandberg, 2013). The details and specificity added to cultural or organizational narratives allow people to create a coherent self that is unique yet connected to a more abstract group.

One aspect of narrative identity is the formation of symbolic boundaries that make clear distinctions among types of groups. Symbolic boundaries are "conceptual distinctions made by social actors to categorize objects, people, practices, and even time and space" (Lamont & Molnár, 2002). By developing symbolic boundaries people can create informal dichotomies of people and behaviors. When

developing and maintaining symbolic boundaries, people rely on shared narratives or storylines to situate their actions and selves within larger structures. These pre-existing stories are referred to as formula stories (which exist at cultural and organizational levels) and are essential for the construction and representation of personal identities (Loseke, 2007). By using formula stories, actors link personal experiences and behaviors with culturally meaningful groups (ones that listeners understand) for effective communication. The out-groups remain vague, while personal stories are plotted with specifics.

Narratives and stories are crucial in shaping action (Presser & Sandberg, 2015). To better understand the social phenomenon of drug use, including microdosing classic psychedelics, it is important to examine the narratives people use to construct their personal identities. Exploring the personal narratives of people who microdose enables us to better understand the complex factors that shape drug use.

Methods

To explore the narratives of people who microdose classic psychedelics, we rely on data collected from semi-structured interviews with 30 people who had microdosed. The interviews took place between June of 2017 and January of 2018. We began recruiting participants using criterion-based sampling techniques via social media. The primary investigator made posts to various Facebook groups and a web forum devoted to microdosing. These posts stated the nature and purpose of the study and asked that anyone interested in being interviewed contact her. To be considered eligible for participation, participants had to be at least 18 years old, and had to have experience microdosing classic psychedelics (e.g., LSD or psilocybin), either at the time of the interview or within the past year. We defined microdosing as taking small doses of a classic psychedelic using a regimented schedule for at least five weeks, which is the dosage protocol most frequently cited by those who microdose (Fadiman, 2011; Johnstad, 2018).

We interviewed participants via telephone or the Facebook call feature, and recorded these conversations with participants' consent (all consented to the recording). The interviews were recorded using a phone recording app publically available for purchase. Evaluations of research using telephone interviews suggests that they are just as effective as face-to-face interviews for certain populations, including those who are college educated and among the middle and upper classes (Holt, 2010; Stephens, 2007). The interviews lasted between 30 min and 75 min. Participants were not compensated for their time.

We obtained Institutional Review Board (IRB) approval at the home university of the lead author, as she was the recruiter and interviewer. The interviews were semi-structured and focused on topical areas related to motives, experiences microdosing, microdosing practices (dosing amounts, procurement, schedule), and strategies for maximizing the benefits of it. We began all interviews by asking the participant to tell their personal story about when, how, and why they first began microdosing, while probing throughout to clarify ambiguous storylines. All interviews were transcribed by three trained undergraduate research assistants, and all of the names and identifying information about the participants were changed. We assigned each participant an alias, which are used throughout the results.

Coding was an inductive process, but we used previous research on narrative identity and symbolic boundaries as sensitizing concepts. After transcription, the lead and second author read and coded all of the interviews for overarching themes. The two authors engaged in a peer debriefing process to ensure consistency in coding. That is, they both coded transcripts, met to compare codes, and then discussed any inconsistent coding. Once they reached agreement on coding, the previous transcripts were recoded. This process was repeated until all transcripts were coded by each author. In analyzing the data, we found that both women and men described similar reasons for microdosing. Accordingly, we have chosen to not separate the analysis by gender.

The ages of participants ranged from 18 to 69 years old, with a

median age of 31. Twenty of the participants were men and 10 were women. Twenty-four self-identified as White, and the others self-identified as Asian ($n = 1$), Hispanic ($n = 3$), or Middle Eastern ($n = 2$). Thirteen of the participants microdosed with psilocybin mushrooms, eleven with LSD or its analogue 1-propionyl-lysergic acid diethylamide (1P-LSD; see Sexton et al., 2019), and six with both. The average time participants microdosed was for about one year, with a range from two months to five years. Twelve of the participants also reported using classic psychedelics in recreational doses, twelve did so in the past, and six had never used recreational doses.

Rationality and microdosing

In general, participants saw themselves as conventional people who microdosed classic psychedelics to enhance their lives. They were concerned with health and wellness and took care of their bodies in a manner informed by science and experience, like others may do with nootropics and other supplements. They said that they microdosed to be the best possible version of themselves in their professional and personal lives. This emphasis on being rational (i.e., using drugs in controlled ways to aid self-improvement) and conventional is reflected in (1) how they discuss the practicality of their procurement and administration processes (e.g., scheduling and dosing), (2) how they connect their microdosing to smart living, health, and wellness, and (3) how they talk about the benefits of microdosing.

Practicality of microdosing

Participants emphasized their rationality in the practical aspects of their procurement strategies and dosing schedule. That is, they showed how they differed from hedonistic drug users who they believed were prone to take risks when buying and using drugs. Participants pointed to their safety precautions, in both their procurement and administration of the drugs, to minimize formal risks and health concerns when using. When describing the practicality of their microdosing regimen, participants discussed (1) their safe procurement strategies and (2) their regimented schedule and dosage. At each of these stages they highlighted their rationality.

Procuring classic psychedelics

Participants discussed how they procured the drug in ways they believed to be safe and smart. The participants said they never bought from strangers. In fact, their ability to procure the substance was often one of the most difficult aspects of beginning their microdosing practice. Mason explained:

I just happened to know somebody that had some at the time. I'm an introvert, I spend most of my time at home. I don't really associate with that type of crowd that has that stuff on hand, at any given time, and it actually was just pure luck that I happened to find somebody that had a steady supply of LSD. (36y.o., White, Male, Electrician).

Some were able to begin microdosing when they were gifted a small amount of either substance by a friend. Not all of the participants knew people from who they could regularly buy the substances. In fact, only 12 of them had contacts with people who sold classic psychedelics when they first began microdosing. This created a risky situation for those who wished to purchase the drugs but who had no contacts. Rather than finding "real drug dealers" many of the participants said that they began growing their own psilocybin mushrooms. Those who grew said that they looked online for growing techniques and supplies. Interestingly, none of those who grew psilocybin mushrooms sold them solely for profit. They said they grew them for personal consumption, but did give them away to friends. The few who did sell did so only to recoup money spent on purchasing spores and supplies. Growing their own psilocybin mushrooms was thought to be safer than seeking out

drug dealers because it could all be done in their home; thus, limiting their exposure. This was also an indication of their ability to delay gratification, as the process to grow mushrooms takes several weeks.

Others reported that they believed they could purchase 1P-LSD legally online. By procuring the drugs online instead of explicitly illegally through other sources, participants believed that they were safe from potential legal consequences. In addition to feeling safe from legal consequences, participants also said that purchasing the drugs this way made them feel less exposed to the risk of potentially ingesting something unknown or harmful. Procuring the drugs in this way ensured them that they knew exactly what they were buying and taking. Several even purchased drug testing kits online to ensure that they were getting what they wanted. Timothy said:

[1P-LSD] is 99.9% pure laboratory manufactured, not like buying LSD on the streets where you don't know what the dosage is. When an illicit laboratory is synthesizing a drug and producing it for, you know, distribution that's kind of a sketchy operation anyways, so you don't have the same kind of quality control as with some of these research chemicals. So you know exactly what you're taking and you know exactly how much of it there is. So I kind of liked that part of it. (59y.o., White, Male, Senior Analyst)

This concern with safety, both legally and from potential adverse or harmful effects from adulterated drugs, highlighted the participant's belief of their rationality.

Dosing schedules

In addition to emphasizing their rationality in their procurement strategies, participants emphasized the degree to which their microdosing practice was regimented and based on extensive research and experimentation. Generally, participants reported that they took somewhere between 0.2 and 0.5 g of psilocybin, or about one-tenth of a standard dose of LSD (which they described as one "drop" of it), respectively, every three to four days (Fadiman, 2011; Johnstad, 2018). They detailed research via various internet resources, books, and seminars, as well as personal experimentation to inform their schedules and dosages. Still others explained that it took extensive trial and error to dial into the correct dose for their purposes. When asked how he came to decide upon a certain dosage, Jack (60y.o., Hispanic, Male, Construction Superintendent) said, "Through experiments on myself." Several participants also reported putting their mushrooms into capsule form, where both the precision in measurement and medicinal appearance furthered the impression that their practice is legitimate. Ashley said:

In the capsules it just looks like a multivitamin so I just keep it in a vitamin bottle. (29y.o., White, Female, Loss Prevention Supervisor).

This practice was thought to reduce their chances of detection if found by others as they could say the capsules were supplements.

When microdosing LSD participants said it was easy to miss the proper dose so it was necessary to experiment. Improper doses led to them feeling distracted, or "off," so that the desired benefit of productivity was minimized. Matthew described what it felt like when his dosage was incorrect. He said:

If I take a little too much it can be a little distracting visually. The things seem a little too bright and, I stare at a computer all day long and that... and also my office area has a lot of blue spectrum lights, and so I don't know it feels a little funny. That's the biggest downside. (47y.o., White, Male, Computer Engineer)

Because of this potential, they said they would always try the first dose on a day they did not have to work. That way, they were more confident of its effect when they did need to be productive. They then used this practical experience to adjust doses for the proper amount.

The emphasis on the practicality of microdosing, including the participant's safe procurement strategies and regimented dosages,

combine to show that microdosing was conceived as a rational and conventional practice. Participants said they were not using these substances recklessly or recreationally, rather they were exercising care and caution while using classic psychedelics to help them achieve practical goals.

Living smart and healthy

The participants said they tried to live healthy lifestyles and to find a balance between their work and home lives. They did this by being smart about their choices, often emphasizing their desire to rely on science or personal experience when choosing lines of behavior. Microdosing was said to be a part of this broader mindset of living smart. Specifically, they believed that it was important to engage in behaviors that would aid in their mental and physical health and that microdosing classic psychedelics was one way to do this.

Nearly all of the participants talked about the importance of natural and organic living. They discussed being mindful about their health in their daily lives, including eating healthy, using organic products, and engaging in regular exercise. Bonnie said:

I'm a big wellness buff. [As I] get older, I'm more and more into like natural, holistic kind of stuff. You know? And that [microdosing classic psychedelics], to me, is like pot, it's not something that's made in a lab or something, you know? I mean, it is natural. (64y.o., White, Female, Hairdresser)

Most preferred natural medicine and healing to relying on prescription medications. They believed doing so was healthier and less reliant on mainstream medicine. Thomas, who advocated for less reliance on prescription pharmaceuticals and an increase in natural remedies said:

I'm a plant person. My wife and I have a garden, we grow a bunch of food, we're both naturalist leaning in our views about medications and doctors and hospitals and healthy eating and stuff, so if we can grow our medicine rather than pay someone for an encapsulated synthesized fake version of that then I'm going to do that. (29y.o., White, Male, Higher Education Administration)

Similarly, Gillian explained:

I became a qualified herbal practitioner, and I've run an herbal business, but more importantly I'm an herbalist. I'm a qualified herbalist and aroma-therapist so I understand plant medicine, chemical constituents of plants, and how to use plants, most effectively and what to use them for. (55y.o., White, Female, Executive Director)

Some participants merged their preference for organic medicine with holistic methods of improving mental health and they believed that using psychedelics was consistent with this belief. Max (43y.o., White, Male, Server) said that he was a “big self-help kind of person, so I feel like a lot of that like spiritual, self-help, Buddhist, yogi type stuff and hallucinogens, go hand in hand well.”

Not only were participants generally interested in behaviors that would promote their health and wellness, but they sought to be disciplined and rational in promoting their health, relying on science and personal experience in finding practices, including supplements, to do so. Thus, they framed their microdosing as part of their general awareness of and interest in their own health and wellness using regimented behavior. John (68y.o., White, Male, Retired) said, “I've always been somewhat experimental, thinking that food and nutritional supplements and things like that could help you.” Similarly, Frank said:

I'm quite a cerebrally oriented individual and I like to be productive and hard-working and physically active. So, I'm always kind of interested in nootropics, or new diets, or trying self-experimenting and seeing if whatever can optimize my performance in a way. (32y.o.,

White, Male, Strategy Officer)

When choosing behaviors they believed would promote a healthier lifestyle, respondents said they relied on scientific evidence or personal experience, rather than simple hearsay and anecdotes. Diana explained why she chose microdosing:

I read this Economist article once, that ranked drugs based on how dangerous they were and the amount of deaths that were attributed to them. And LSD and mushrooms were at the very bottom of the list. (30y.o., White, Female, Research Scientist)

Reflecting similar concerns for overall health, Max (43 y.o., White, Male, Server) said, “I was a big fan of hallucinogens growing up because research was saying that you couldn't get addicted to it.” The participants' inclination towards health and self-care was exemplified by their disciplined approach to healthy lifestyles. They sought to make well-informed decisions regarding their health, bodies, and well-being by using scientific research and extensive self-experimentation.

Benefits derived from microdosing

Consistent with a mindset promoting health and wellness, the participants said that they received numerous self-enhancing benefits from microdosing. When describing the benefits of microdosing they emphasized: enhanced mood, increased productivity and creativity, and heightened sociability. The most common benefit participants expressed about microdosing was its ability to enhance their moods. Participants who experienced symptoms associated with depression and anxiety said that negative emotional states became minimized (or non-existent) after they began a microdosing regimen.¹ Jessica said:

Before I started microdosing I was very, very, very down, upset, depressed, not leaving my room. And then I started microdosing and I felt motivated to start studying, do my homework all day long. I was going out, talking to all my friends, interacting with other people. I feel a more intimate connection with them. (19y.o., White, Hispanic, Student)

Some of the participants said that they were experiencing grief, sadness, and melancholy due to trauma in their lives. Such symptoms decreased considerably once they started microdosing. Ashley said:

We had a friend die and it was just a really hard time. I mean a very hard time, it was my husband's best friend. He was the best man at our wedding, and my best friend, the maid of honor, was his girlfriend. He was only 36 and died of an abrupt heart attack and so it was a really sad time, too. I was having to support both of them [friend and husband]. So I feel like it helped a lot of things too, not just the goals that I did have, but I feel like it [microdosing] made me feel better and pulled me out of a funk I was in. (29y.o., White, Female, Loss Prevention Supervisor)

Participants also said that they microdosed to help with both the physical and emotional symptoms associated with a variety of health issues, such as drug addiction, debilitating headaches, menstrual cramps, and injuries. Tori explained how she microdosed to aid in her emotional rehabilitation from a brain injury:

It's been really, really, really, really, rough. And I felt like I was slowly coming back, getting pieces of myself back every few weeks for the last couple months, and then doing mushrooms, like starting to microdose was so strange. I felt like, I felt like I was just thrown back into the person that I used to be [before the injury]. (25y.o., White, Female, Student)

¹ We did not assess whether they were clinically depressed or had been diagnosed as such. We rely on self-descriptions only.

Participants believed that microdosing helped them overcome a wide range of health issues. In fact, participants reported quitting heroin, prescription opioids, alcohol, and cigarettes due to their regimented schedule of microdosing. Marcus said:

I've been addicted to heroin for the past three years and I've also quit using heroin completely, since I've started microdosing. (39y.o., White, Male, Construction)

Annie (36y.o., White, Female, Store Owner) too said that "*opiates are no longer a crutch in my life*" since she began her microdosing regimen. Others reported the value of microdosing in helping them to overcome long-term nicotine addiction. Mark said:

One of the first things that I noticed was that I was able to quit smoking, just right away, like as soon as I started microdosing I had no inclination for a cigarette. (26y.o., White, Male, Unemployed)

Overcoming negative emotions and health issues were described as important benefits for continued microdosing. But, so too was boosting already positive moods, attitudes, and outlooks. Indeed, many of the participants believed that they had good lives in general but that microdosing enhanced them. Chase said:

It's [microdosing] like hacking your brain, you know? Like being a better you. ... I feel like you're generally happier, more upbeat, kind of more open minded also. (26y.o., White, Male, Assistant Brewer)

Other participants said that microdosing helped them to become less rattled by things that would typically agitate them. Mark explained how microdosing affected him:

I become more optimistic and things didn't get to me as much or bother me. I was more inclined to, I guess, laugh and smile. (26y.o., White, Male, Unemployed)

Others mentioned that they could empathetically experience the good mood of others. For example, seeing a stranger smile would cause them to feel happy even if only fleeting. It was common for participants to talk about the long-term mood enhancement of microdosing. While the effects were not immediate and dramatic, they all discussed the presence of a subtle, but positive, enhancement in their mood over time.

All of the participants were students or had conventional careers. They praised microdosing for its ability to increase productivity and satisfaction at their work, which is often a primary concern among the middle class. They reported being more focused, creative, and energetic, especially on the days of and after microdosing. Evelyn said:

Before it was harder for me to get myself to sit down and do my work at home ... and now I just feel extremely organized, like I can get things done. I always have a plan, I always make goals. (23y.o., Hispanic, Female, Court Recorder)

While some respondents, like Evelyn, microdosed to motivate themselves and to maximize their efficiency, others microdosed as a tool to enhance their cognition, using it as an aid in helping them to perform abstract or difficult work-related tasks. Paul said:

I noticed that, that my job was certainly easier on the days where I did microdose. It seemed like, I don't know, I could just kinda more quickly explore an idea visually instead of, you know, just having to logically think through it with steps and saying it out loud. So I noticed it on the days where I'd be in a team collaborating with my colleagues, I would typically pick up on concepts a little bit faster than on the days where I didn't. (23y.o., White, Male, IT Consultant)

Chase said:

It's just more like you're on your game. ... You're just 100% with it, got it going on, you know? You actually kind of walk around like you're the Wolf of Wall Street, like you got a one up on everybody.

(26y.o., White, Male, Assistant Brewer)

Some participants said that they experienced increased energy from microdosing, making waking up in the morning less difficult and even reducing their need to drink coffee throughout the day. Sara said:

I used to like drink four cups of coffee a day, and now I'm just down to one or two. The second one usually just because I like the taste. Not because I need the caffeine. And, it's not like it gives you the energy, I don't feel the need to be like wired all the time with caffeine, like because microdosing just does that for me in a calmer way without the like anxiety that comes with drinking coffee. (20y.o., Middle Eastern, Female, Student)

Participants also discussed increased sociability as a benefit derived from their microdosing regimen. Increased sociability included the desire and ability to interact with others, which was especially important for those who self-defined as being socially anxious and introverted. Nick said that he even became more creative in conversation:

I would notice myself being more outgoing and just, I would hear myself talk and go like, 'Wow! I wouldn't normally have said something like that!' (32y.o., White, Male, Sales)

Thomas (29y.o., White, Male, Higher Education Administration) explained that he microdosed as a substitute for alcohol in social situations. He said that it provided him with "*euphoria and a general sort of vague feeling of community and connectedness.*" Echoing this, Diana said:

My thing is—I'm an introvert and I do have a little bit of apprehension in larger social settings. And alcohol is obviously like a really good way to knock down some of your [social] inhibitions, and I don't like alcohol. I don't know, I don't like the after effects and it's expensive. And in my mind microdosing is like the same as drinking alcohol, it's just cheaper, it's easier, and I'm all about efficiency. So my main goal was just to have an equivalent to drinking. (30y.o., White, Female, Research Scientist)

Others reported feeling a greater connection to people as a benefit of their microdosing. Like Timothy (59y.o., White, Male, Senior Analyst), who explained:

I'm feeling a much deeper kind of spiritual connection to my wife and to what's going on around me and I'm feeling a lot more connected to people around me.

The reported advantageous benefits derived from microdosing, including mood enhancement, heightened work productivity, and general sociability, suggest that the practice was conceptualized as rational in the context of their conventional lives. The participants framed their use in a language of self-control, rationality, and work productivity. They believed that microdosing classic psychedelics enhanced these focal concerns and made them better people. They did not define themselves as hedonistic partiers, rather, they saw themselves as responsible, respectable citizens who microdosed to be better people and to more easily reach self-actualization.

Conclusions

While there is no large-scale epidemiological study to show patterns of microdosing, media reports suggest that the practice is primarily found among White, middle- and upper-class professionals, especially in technology industries (Glatter, 2015). Not surprisingly, our participants, many of whom were middle-class professionals or students, talked about their microdosing in ways that emphasized the values of the middle-class in the United States. Traditionally, working class and middle class parents place high value on their children being happy (Kohn & Schoenbach, 1993). People from different social classes have varying perceptions as to what values lead to happiness. Middle class

parents emphasize the importance of being curious, having self-control, and being ambitious for happiness. Working class parents, on the other hand, promote honesty, consideration of others, and popularity (Kohn & Schoenbach, 1993). The way participants spoke of their microdosing is consistent with these middle class values. That is, they said they microdosed to enhance mood (to be happier in their lives) and reported that their decisions to do so are based on their curiosity and ability to use reason and evidence. They spoke of microdosing classic psychedelics in similar ways that people who use natural medicines speak of the benefits of these supplements; that is, participants believed that microdosing classic psychedelics was a healthy means to enhance their personal and work lives.

In many ways participants' discussions of microdosing were attempts to distance themselves from recreational, hedonistic drug users. Such distancing is common among those who use drugs (Copes, 2016). People who use drugs recognize that outsiders, especially conventional citizens, condemn recreational drug use and blame all that is wrong in their life on their drug use (Copes, 2016). The stigma associated with drug use varies by the type of drug used, the type of person using, and the situational context of the drug use (Luoma et al., 2007; McKenna, 2013). Regardless, people who use drugs do not passively accept the stigma (Copes, Hochstetler, & Williams, 2008; Copes, Leban, Kerley, & Deitzer, 2016; Rödner, 2005). One way they manage stigma is by narratively creating symbolic boundaries that distance themselves from those they define as problem drug users. In many cases, this involves showing how they are functional users and others are not. Those who see themselves as functional users believe they are in control of their drug use and can maintain important social roles and expectations, and that dysfunctional users are controlled by their drug use (Boeri, 2004; Rödner, 2005). Those who self-define as functional users tell identity narratives that mark differences between themselves and symbolic others (e.g., "crackheads," "junkies," and "tweakers"). This allows self-defined functional users to believe that they are not true addicts and should not be treated as such (Copes, 2016).

People construct symbolic boundaries by drawing from larger cultural narratives that highlight acceptable behaviors (Loseke, 2007). For example, people in many Western cultures value a self-actualized life. For many, self-actualization comes from status-related achievement, such as academic or work success (Krems, Kenrick, & Neel, 2017). As such, those who define themselves as functional users often draw on these themes when developing symbolic boundaries. Traits such as self-control and self-discipline shape the construction of symbolic boundaries regarding drug use for many middle-class people who use or misuse drugs (Kerley, Copes, & Griffin, 2015; Pennay & Moore, 2010). These characteristics of rationality form the key defining features separating functional users from dysfunctional ones. Drug users' ability to exhibit self-control is evidenced by their proper consumption of drugs, their capability to control the effects of it, and their knowledge of the appropriate times and places to use (Gowan, Whetstone, & Andic, 2012; Kerley et al., 2015; Ravn, 2012). Such emphasis on being rational and having self-control was how participants plotted their stories of microdosing classic psychedelics. Narrating their stories in this manner allowed them to maintain symbolic boundaries between themselves and symbolic others who would be defined as hedonistic and irrational.

Our participants did create symbolic boundaries among groups; however, they did so in ways that differed from other recreational or chronic drug users. People with problematic use of crack cocaine, methamphetamine, and heroin are often marginalized and have a difficult time showing their similarity to conventional citizens. Thus, their boundaries are designed to show how they are unlike the typical user seen on anti-drug billboards (Marsh, Copes, & Linnemann, 2017). This was not the case for our participants, who were predominantly middle-class, White people with college degrees. Despite using illegal substances regularly, they were at limited risk of being identified with problem drug users who appear on anti-drug ads and who are blamed for society's ills. They were not those users accused of putting their

children at undue risk or victimizing their friends and families. They were not called demeaning names like "junkies" or "dope fiends." To the contrary, they all saw themselves as conventional citizens, and they microdosed to ensure that they remained this way.

Due to the limited risk of being misidentified as "crackheads," "junkies," or "strung out hippies," they did not actively maintain symbolic boundaries to distance themselves from such demonized groups. Indeed, our participants used boundaries to show who they were, and how they fit in with (and even exemplified) conventional belief systems. Their motives highlighted how they used not for recreational purposes, but to better themselves. Microdosing classic psychedelics was said to boost self-esteem, productivity, and creativity, which in turn made participants better workers and producers. Their procurement and dosing strategies were not haphazard. Instead, they were thought out and rational. Many even spoke of their extensive research and experimentation to develop the ideal dosing regimens for themselves. They dosed in ways that did not lead to altered consciousness, and when they did experience these effects it was used as a lesson on how to improve. Such findings highlight the importance of using a narrative framework for understanding drug use. It shows that the process of narrative sense making and boundary maintenance is not pathological and unique to marginalized drug users.

As with any study in which a non-probability sample is used, caution should be taken in generalizing findings to all who microdose classic psychedelics. Our participants were primarily middle-class professionals who interacted on online forums devoted to microdosing and this undoubtedly shaped the ways they framed microdosing. Others who do not microdose but who come from these backgrounds may draw from different cultural narratives when discussing the practice. It is important to also study such populations. We also note that the various benefits the participants associated with microdosing is yet to be verified with clinical trials; however, recent assessments of microdosing have shown support for it increasing convergent and divergent thinking (Prochazkova et al., 2018) and reduced negative emotionality and increased personality openness and creativity (Anderson et al., 2019). While the nature of our study prevents us from validating participants' claims, they believed that microdosing has benefitted them in many ways. Of course, our goal here was not to analyze the veracity of participants' beliefs about the benefits of microdosing. Rather, we sought to better understand how those who engage in microdosing make sense of their actions. The findings suggest that looking at the way people create narrative identities by drawing from larger cultural narratives is important for understanding drug using practices.

Declarations of interest

None.

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