Turn On, Tune In, Drop Out? A Typology of Psychedelic Microdosing as Technologies of the Self

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ABSTRACT

Psychedelic microdosing, or taking small doses of psychedelic substances that do not induce intoxication or altered states but rather subtle outcomes such as increased focus, has quickly become a mass media phenomenon. Many claim microdosing has become the new secret to enhancement in work contexts. Drawing from literature on psychedelic microdosing, technologies of the self, self-identity and the sociology of work and leisure, this study understands microdosing as a technology individuals introduce into their lives to modify themselves for various purposes. We explore the ways in which the 1960s iconic psychedelic drugs, that once offered turning on, tuning in and dropping out, are now finding new uses across different contexts. Taking a cultural-sociological perspective, we examine how individuals use microdoses of classic psychedelic drugs and how they make sense of microdosing in their daily lives. Based on our findings, we identify three different uses of psychedelic microdosing: (1) as technology of self-esteem and control at work, (2) as a self-help technology, and (3) as a technology of 'slow living'.

Keywords: microdosing, psychedelics, work culture, LSD, technologies of the self

INTRODUCTION

The phrase "turn on, tune in, and drop out" (Leary, 2009) echoed at the Golden Gate Park during a *Human Be-In*, the prelude to San Francisco's Summer of Love. "Turn on" was Timothy Leary's call to activate neural "equipment" and become mindful and "conscious". "Tune in" represented a harmonious interaction with the outside world. "Drop out" encouraged people to disengage from inadvert or forced societal commitments. These countercultural ideas fueled peace protests and birthed hippie communes. Beyond that, LSD-induced states also played a part in motivating ideas and pushing technological progress in various professional fields. Well-known innovators such as Steve Jobs, Bill Gates, and Richard Feynman are among the many figures that took up the mind-altering drug for its ability to inspire creativity and fuel new ideas.

Since the 1960s, many psychedelic substances were prohibited and went off-radar in mainstream media. However, in the past decade, research on psychedelics has experienced a revival, sparking what came to be known as the third wave of psychedelic research (Pollan, 2018). This renewed interest attracted substantial media attention. Today, psychedelics have made their comeback, but only in very small doses.

Although research into psychedelic microdosing is burgeoning, empirical accounts exploring individuals' meaning-making around microdosing psychedelics are still scarce. So far, studies have explored how people dose and use psychedelics in this practice (Johnstad, 2018) and how they self-report the 'effects' of psychedelics (Webb

et al., 2019). Further, studies have touched upon microdosing as cognitive enhancement (Bornemann, 2018) and the potential of microdosing as a therapeutic tool (Lea et al., 2020). Yet, to this day, it remains unclear how people make sense of their use of microdoses of psychedelic drugs in relation to themselves and their work.

Drug effects are not solely properties of inherent qualities of the drug itself, but rather constructed by the contextual structures that are commonly seen as separate from the substance (Becker, 1963; Fraser et al., 2014). Drug effects must therefore be considered as a complex interaction of "bodies, technologies and forces" (Dennis, 2019: 21). They are embedded in the context of people's lives and therefore the societies in which they live. Coming from this assumption, this study will delve into the following questions: What uses do psychedelics have in people's lives? And what meaning does microdosing have for them?

We answer these questions through an analysis of seven in-depth interviews and 67 self-reports on the social media platform Reddit. We tap into what, how often and for what purposes people choose to microdose, and which meanings they attribute to this practice. Further, we delve into how people use microdosing as a technology of the self in (re)shaping the very notion of their identity, and what role microdosing plays in their relationship to their work and others. Finally, this research will explore how microdosing fits into wider societal trends in the domains of work, well-being and self-improvement. Does this rising phenomenon reveal something about the ways in which we think about work, free time and ourselves in a post-industrial society? And could it be changing the ways people relate to these spheres in their lives?

THEORETICAL FRAMEWORK

Microdosing

Microdosing is a practice in which people ingest small doses of psychedelic drugs, usually repeatedly over a period of time that do not provide intoxication or alter users' consciousness in significant ways (Fadiman, 2011). Instead, microdosers say they are seeking more subtle outcomes that contribute to a "better" life–more focus, ease, motivation, or reflection (Webb et al., 2019).

As a trend, microdosing spread quickly on the Internet and social media, where individuals shared their experiences and information, which further facilitated access to these practices on a mass scale (Johnstad, 2018). Its popularity can be observed across social media platforms. A good example is a Reddit forum dedicated to microdosing: in 2015 it had 1,600 subscribers and this number has grown to 99,700 by 2020 (Reddit, 2020). Google searches for the term 'microdosing' have increased by 400% between 2013 and 2020 (Google Trends, n. d.). News media coverage has quickly caught up, reflecting this growing interest and visibility of microdosing classic psychedelics. On the one hand, a line of media reports has focused on how microdosing LSD is helping professionals across fields increase their concentration, problem solving and productivity (Solon, 2016; Swisher, 2018). These reports frame microdosing as the new "productivity hack" in a world where "no one can afford to lose a step anymore" (Swisher, 2018).

In one of the first qualitative studies on psychedelic microdosing, Johnstad (2018) investigates why and how people microdose psychedelics, finding that generally microdosers indeed do not aim for intoxication, but for the enhancement of their everyday functioning. In this study, respondents experimented with microdosing in phases and most reported positive outcomes of the practice, such as improved mood, cognition, and creativity. While an important stepping stone for research on the subculture of psychedelic use, the research does not consider how individuals' own aims, ideas and the contexts in which they microdose shape their experiences with the substance.

Beaton et al. (2020) explored the justifications individuals gave for their use of these, often illegal, substances. They found six main justifications for microdosing psychedelics among their informants: denial of injury, self-sustaining (microdosing as a means of treating personal hardship), self-fulfillment, appeal to loyalties (the belief that their behavior is appropriate, since it not only benefits themselves, but the people around them), appeal to normality (entails the recognition of drug use being normal in other settings and cultures) and knowledgeability (curiosity and the need for knowledge). Based on their participants' justifications, Beaton et al. (2020: 12) suggest that none of the study participants "made excuses" for their use of psychedelics. The authors show that by emphasizing justifications and acknowledging their drug use, participants positioned microdoses of classic psychedelics as "being a tool for success", allowing them to claim their substance use was socially acceptable. The issue of felt stigma around drug use and the felt dichotomy between social expectations and substance use did surface in the study by Webb et al. (2019). The participants in their study showcased "middle-class values" by creating social distance between those who use drugs recreationally and those who, like themselves, aim for an improvement in their lives, in this way normalizing their drug use.

Similarly to the microdosers in Webb et al.'s (2019) study, the study of drug use in LGBTQ+ communities by Pienaar et al. (2020) shows how drugs, in recreational doses or otherwise, can be used to shape sexual behavior and enact queer identities. For example, Pienaar et al. (2020) look at the interrelation of drug use with various

aspects of participants' lives and suggest that drug use can transform gendered experiences and allow the expression of –and experimentation with–non-normative gender identities, thus enabling "the articulation of new or different subjectivities" (7). They therefore consider this type of drug use as an example of Foucault's (1988) "technologies of the self".

Microdosing as a Technology of the Self

The purposeful adjusting of one's own mind and body is not a new phenomenon. The changes people intentionally place upon themselves are situated within the larger social and cultural context. A rich sociological tradition starting with Foucault's work on the technologies of the self (1988) and care of the self (1976) sheds light on this phenomenon. In famous lecture at the University of Vermont, Michel Foucault (1988) introduced four technologies: technologies of production, technologies of sign systems, technologies of power and technologies of the self. Technologies of the self are of particular interest to this study. According to Foucault, these technologies

> "permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality" (1988: 18).

Ian Burkitt (2004: 223), building on Foucault's theory, defines technologies as "the practical rationality that accompanies and guides productive activities, and, thus, is enmeshed in those social relations in which people are educated and trained." Therefore, technologies of the self are not only conceptual figurations and conceptions of a socially constructed idea of a "good life", but also the practical applications of these ideas on people's minds and bodies. These operations can vary from introducing a diet or an exercise regimen, to undergoing surgery, or ingesting substances. In the analysis part of this paper, we focus on these operations or *practices* that people apply to their bodies.

For Foucault, technologies of the self, rather than being a mere reflexive spiritual project, fit into the system of governmentality. However, in his later studies, and particularly in 'History of Sexuality' (2012), Foucault casts doubt on the idea of one-sidedness of the power of the ruling structure. In this work, he turns to deal mostly with the 'technologies of the self'. These technologies are less concerned with forms of institutional knowledge. Instead, he emphasizes technologies of the self as 'practices of freedom' (Nilson, 1998), arguing that technologies of the self should be seen as existing alongside "techniques of domination" and that "the interaction between these types of technique" is what needs to be revealed (Foucault, 1994: 177). Similarly, in speaking of the 'care of the self', he offers that these operations are voluntary actions through which people set self-induced rules of conduct to "change themselves in their singular being, and to make their life into an oeuvre" (2012: 10). The care of the self is expressed through an array of spiritual practices such as self-examination, overcoming existential fears and self-cultivation through developing attention, confession, refusing temptation and so on (Foucault, 2012). These ideas were drawn from the analyses of the life of Ancient Romans, Greeks, and Early Christians, but are argued to apply to societies throughout time. Shifting the focus to the topic of this study, psychedelic microdosing is a self-technology that people employ to transform themselves in a world driven by productivity and reflexivity.

Technologies of the Self at Work

Nikolas Rose (1990) applies Foucault's ideas on technologies of the self in his book "Governing the Soul", in which he analyzes the "humanization of work"—or the turn to viewing the worker as a "self-actualizing ego whose personal strivings could be articulated into the organization of the enterprise" (104). Coming from a Foucauldian power-relations perspective, Rose (1990) posits that the individual has always been central to the regulatory apparatus of the state: molding, channeling, and amplifying subjectivity are inherent in government processes.

In this way, the body has become the object for these transformations. Already in the 1990s, Rose (1990) identified the methods of transformation such as therapy, bioenergetics, transcendental meditation or assertiveness training. Now, other technologies can be added to the list; biohacking, (dopamine) fasting or microdosing are widespread in today's Western world. Rose (1990) argues that these technologies are not so much designated to those unable to "make do", but a transcendence above reality to those that are already seemingly well-functioning individuals. They are "not merely addressed to those unable to conduct a life, but to living itself" (105). We observe this in the recent media accounts on microdosing too. With its roots in Silicon Valley and spread across knowledge and creative workers, microdosing is most popular with those in creative and knowledge careers who aim for an uplift; a slight transcendence of everyday life in the every day.

Authors writing about the trend of microdosing have observed that this trend has caught up mainly in creative work, or work primarily undertaken in the cultural industries that typically involves the production of symbols (either for informational, aesthetic or expressive purposes) for consumption by distant audiences (Hesmondhalgh and Baker, 2008). People involved in this kind of work vary from fine artists, musicians, or dancers to media

producers as well as writers and designers. Angela McRobbie (2002) argues that creative work is especially driven by neoliberal values such as "entrepreneurialism, individualization and reliance on commercial sponsorship" (517)—aspects that create insecurity and require a level of self-mastery at work that did not come with the more traditional 9-5 factory or office jobs. Various technologies can be employed to increase self-control and discipline, which, according to Bauman (1998), are coveted traits in societies where a capitalist work ethic dictates societal values. Similarly, Martin (1992) suggested that the drive for flexibility and productivity in western societies under late capitalism leads towards the need for a vigilant, responsive, and tireless body that can perform at high levels for unending stretches of time. In this line of thought, fasting, biohacking and cognitive enhancement through nootropics are only some of the technologies geared at optimizing the body that have made it to today's work floor.

Furthermore, education and rapid learning are important labor characteristics in knowledge work. Knowledge, rather than physically tangible assets, has now emerged as the most valuable resource that a person or a group may possess (Pyoria, 2005). Work nowadays requires workers to not just know and perform a set of abilities, but also to constantly refresh their knowledge.

METHODOLOGY

This study focuses on how people explain and make meaning of their microdosing *practices*. We rely on two data sources (in-depth interviews and Reddit posts) and qualitatively explore how people talk about their uses of psychedelic microdosing in everyday life. The first data source on which this study is based is gathered from seven in-depth semi-structured interviews with people who microdose classic psychedelics in the Netherlands. We purposefully sampled the initial interview participants through events of a *Facebook* group. This online group is an active and spiritual community that share information, host events and more. The first author has joined this group back in 2017. The type and frequency of posts on microdosing indicated that a portion of the members were interested or involved in the practice.

Drug use is a sensitive and sometimes stigmatized issue to address. To obtain more access to people who would microdose within the group, the first author went to one of the communities' events and was able to recruit three microdosers. The sampling guideline for the recruiting of participants was that the individuals had to have systematically been microdosing within the past year and lived in the Netherlands at the time of the interview. The next four participants were recruited using a snowball sampling technique. This being an exploratory study, age, gender or occupation were not sampling criteria.

Six out of seven interviews were conducted in person and took place both in public spaces, such as cafés, and the participants' homes. The seventh interview was conducted over Skype. Considering that speaking about drugs can be sensitive, the choice of the location was left up to the respondents. The length of the interviews varied between 48 and 62 minutes. The interviewees were informed about the research, and all gave consent to have the interviews recorded and transcribed. To protect participant identities, each individual was given a pseudonym.

The second data source this study uses are self-reports from a social media platform *Reddit*. *Reddit* is an online social platform 'that has attributes of a forum: it allows sharing blurbs of text and media as posts that involve votes and commentary' (De Choudhury and De, 2014: 71). The platform is commonly used as a social feed of information. De Choudhury and De (2014: 71) state that *Reddit* is an excellent channel to study social phenomena since it offers a dissociative 'anonymity cloak' which allows users to discuss feelings and sensitive information that may be considered socially unacceptable or stigmatic.

For a variety of reasons, the platform proved to be a great source of data in answering the questions posed by this research. Reddit has been chastised and lauded for its lack of a "filter" on the content that can be posted on sub-Reddits (various forums; Gilbert, 2013). As a result, the platform supports a wide range of perspectives and experiences. A random sample of *Reddit* posts in the category "report" were taken from *Reddit's* r/microdosing sub-reddit based on this. Reports were searched from January 2019 until January 2020. This time period was chosen to coincide with the year in which the interviews were conducted. In this way, ensuring uniformity in legislation regarding the legal status of psychedelics or in the availability of various media products (films, podcasts, and books) did not result in systematic differences between interviewees and *Reddit* users. A total of 334 reports were found. A random set of 20% of the reports were sampled. Starting with one, every fifth post was included into the sample to guarantee a non-biased selection.

The examination of the *Reddit* posts, in addition to the interviews, allowed us to investigate if the patterns we discovered in the interviews held up across a broader range of people's experiences. Therefore, collecting the Reddit posts is a way of attaining validation of the ideal-types found in the interviews. Further, seeing as the resulting sample of interviewees was rather homogenous, we wanted to see whether the types of individuals that take up microdosing and post their experiences on *Reddit* will be in line with our interviewee respondents.

Data Analysis

We performed an exploratory qualitative content analysis of the interviews and *Reddit* data. We went through several stages of coding, including open, axial and closed coding to arrive at the final categories. The open-coding stage of the analysis ended up in 72 codes, including, for example, slowness, stress-relief, microdosing as therapy, microdosing background, microdosing creativity, microdosing focus, or microdosing disconnecting. We related and grouped codes during the second phase of coding (axial), resulting in three key categories: self-control and self-esteem, self-help, and "slow living." Individual cases were studied and contrasted, resulting in a descriptive typology of varied uses of microdosing.

Limitations

There are several limitations to this research design that we see fit to address. First, occupation, age, social class and other demographic aspects were not part of the sampling criteria for this study. This, in addition to the place method (Facebook group's events) and location (Amsterdam) of sampling, contributes to a homogenous group of young middle-class respondents, not representative of the larger population. The fact that our sample consists largely of younger, highly educated individuals, however, is in line with other studies on the subject (Polito and Stevenson, 2019; Rosenbaum et al., 2020). Second, consequently, the findings we relate here to developments in wider society (like, for example, economic and ideological frameworks in which we work) may be influenced by the type of group of people that is being studied here. Despite these limitations, however, we see this study as a fruitful glimpse into the meanings that the given group of individuals ascribe to microdosing.

ANALYSIS AND RESULTS

The analysis of the interviews and Reddit self-reports identified a variety of ways in which people think about and use psychedelic microdosing, as well as how they place microdosing in relation to the self and their work. Both data strands revealed three important categories. In the ensuing analysis, we will elaborate on these three applications of microdosing classic psychedelics:

1. *Turn on:* microdosing as a technology of self-esteem and control at work,
2. *Tune in:* microdosing as a self-help technology, and
3. *Drop out:* microdosing as a technology of "slow living".

Before describing these modes, it is important to distinguish here that the analysis that follows is concerned with different types of *uses* of microdosing, rather than different *individuals*. Further, the described types also showcase some underlying communality. Most significantly, focus, sincerity, self-reflection and improvement were notions emphasized in all three types but applied in diverse ways in various scenarios.

Turn On: Microdosing as a Technology of Self-Esteem and Control at Work

In both the interviews and Reddit postings, work appears as one of the key motives for microdosing psychedelics and the main 'life sector' in which this occurs. All interview respondents, as well as the self-reports (that identified their occupation) on *Reddit*, were highly skilled individuals in high-end occupations. The projected promise of microdosing was to incorporate improved productivity, attention, focus, and creativity into the lives of the software engineers, dancers, artists, scholars, and designers in this study—people whose work may be called 'creative' or knowledge labor. These motivations were similar to those found by Johnstad (2018): the way people narrated their use of psychedelics at work appeared to derive from the mainstream view of microdosing as a "cognitive kick". The shaping of the self and negotiating temporalities and speed of life are therefore linked to microdosing, where work appears to be one of the key axes around which identity is constructed. For these individuals, it is utilized in the search for "authentic" work in (creative) occupations and derives from the increasingly hybrid character of the modern workplace and related anxieties.

In our data, work was emphasized as an important component of one's waking hours. For instance, Mia, a twenty-six year old PhD candidate, proposed an example from her field: "I think many academics, myself included, see work as part of themselves […] I feel it's part of my identity" (Mia, 26, PhD candidate). Other participants express a similar sentiment. Mateo (29), a software engineer in a large Dutch company, focused on work "as one of the main reasons to microdose", arguing that doing his job well comprised a large part of his identity and therefore "working on work" is at once "working on himself". Similarly, painter Santiago (37) describes his relation to work, for which he microdoses, as "something that comes from within you" and as an "inner process".

These testimonies demonstrate that employment is a source of self-expression, recognition, and significance for these individuals. However, in order to be all that, work must be authentic and "come from inside," rather than "foisted" from above. The gratifications these individuals derive from work contribute to the loss of boundaries between work and leisure lifestyle sectors. Further, the interviewees highlighted the issue of the blurring boundaries

about my project, or even answer some emails" (Mia, 26, PhD Candidate). In the past decades, scholars have noted the blurring boundaries between work and non-work, some even suggesting that work can be considered the "new leisure" (Lewis, 2003). This was especially prevalent in cases of home-based and freelance work, where "the blurred spatial and temporal bondaries between work and non-work are often associated with work intruding non-work time" (Lewis, 2003: 347). In this boundaryless lifestyle, work can never be 'completed', which draws people away from other activities.

Workplaces today have become hybrid: individuals work in increasingly complex environments where they interact with smart digital technologies, or are in some way affected by them (Pustovrh et al., 2018). These technologies facilitate greater responsiveness and productivity, as well as generally higher performance. However, beyond technology's convenience, it raises the bar of expectations and norms regarding workers. Mateo (29, Software Engineer) refers both to technological advancements and the human relation to them by saying:

> "I think the pressure is coming from everywhere. It's not like in the old days when you had a computer as big as the wall and you have the whole day to make a calculation… no, now everything goes quickly and you should too… That's sad and it leaves a lot of people out…but it's either you adapt or you don't" (Mateo, 29, software engineer).

A year before the interview, Mateo began using microdosing as a technique in his job. He began taking dosages anytime he was upset or dissatisfied with the duties and demands placed on his shoulders, but he maintained microdosing due to the unanticipated result of increased calm, creativity, and joy at work. Other participants also mentioned these outcomes as motivations to microdose (Lotte, Mia, Matteo, Reddit users 1, 16, 21, 27, 32, and 60). Indeed, creativity and intellectual capacities have become the cornerstone of so-called 'knowledge work'. The capitalist logic of production has transformed from indicating obedience and working tirelessly for a great number of hours at the conveyor belt, to being primarily occupied with monetizing the creative skills and advanced intellectual capacities of individuals. While this unquestionably adds a layer of meaning to work, it also makes these individuals more susceptible to exploitation, as in the case of artists not being rewarded for exhibitions (because they like making art), or academics working long hours and weekends voluntarily 'sacrificing' for the sake of their loved jobs. This is reflected in Mateo's views above and Lotte's (23, photographer) response when she was faced with tasks such as learning theory prior to an internship project. She explained that theory and philosophical ideas are increasingly a part of contemporary art, and that she could only "adjust" to these requirements through the use of microdosing:

> "I had to read quite some theory, but I have dyslexia, which gives me a hard time. Microdosing really helps to give me more concentration and actually focus on the words and on the sentences […] it's part of my job" (Lotte, 23, photographer).

Microdosing thus is used to treat something that is perceived as "deficient", such as a learning disorder, and adjust the body using techniques such as microdosing to achieve what is seen as 'normal' to fulfill work requirements. The preparation for her internship, in Lotte's case, which took place after work, was seen as something she obviously had to 'improve' on her own. Adjusting the body and mind to become more vigilant and responsive to achieve high levels of performance in a neoliberal society becomes one of the technologies at the participants' disposal. However, this adjustment does not only take place in cases of 'deficiency'. Mia (26, PhD candidate) had not struggled with disorders prior to her microdosing. Instead, she explains how pressure to produce is changing the ways in which she perceives how much she should be producing, which leads to anxiety over the amount of work:

> "Sometimes it can get much, but it's not really… it's not that it's objectively much, it's much in my head, because […] I think I just did not maybe know how to manage with it very well… and then it becomes difficult." (Mia, 26, PhD candidate).

Here, she expresses doubt about her capacity to deal with the difficulties that "come with the job." Indeed, self-esteem and work fulfillment are inextricably linked (Rouse, 2004). However, as technology has become more prevalent and the speed of work has increased, so have people's expectations, as have their feelings of inadequacy to meet these expectations. Participants in this study employ microdosing as a technology to become what they perceive is required of them. While the interviewees were highly skilled professionals, the feeling of lack of competence in the workplace was one of the determining factors that drew them to microdosing psychedelics. Lotte explains this in the context of her photography practice:

> "I used microdosing when I was photographing and that just gave me a certain focus and a boost in my self-esteem. I don't know what comes first, but for me that was interesting. I get more focus on the day itself… completing my task and it was more fun as well" (Lotte, 23, photographer).

Given the non-standardized and highly specialized nature of creative and knowledge-intensive labor, there is a great deal of uncertainty. This uncertainty is especially troublesome when knowledge workers lack the established prestige and qualifications that conventional professions provide (Mallett and Wapshott, 2012). This is especially true for several of the interviewees whose work is marked by ambiguity: freelance designers, photographers, and painters.

Microdosing is used as a technique to remove ambiguity from work situations. By being able to focus on the present moment, which Lotte (23) identifies as a central "drug effect" in microdosing, she is able to control the situation and thus remove felt loss of control. Mia conveys a similar sentiment by saying "It [microdosing] just makes me at ease and feel in control of the flow, it brings me a little bit further." A *Reddit* user reports: "it feels as if it comes from your head saying you can do this instead of the physical capacity to do so" (*Reddit* user 1).

Taking control of one's work, relationships and behaviour was one of the most common themes in the interviews (four out of seven) and the *Reddit* reports (21 out of 67). Further, the feeling of control and rise in self-esteem that the participants noted as one of the major "drug effects", was caused by inducing slowness at work, thus re-creating their relationship to work. Mia, who microdoses for work once or twice a week, mentions that "the to-do list disappears into the background, and so you can focus on what is right in front of you". This dissolution of anxiety and "not worrying what's next" allowed her to be more precise in her endeavors at work.

A *Reddit* user who is a dancer by training and microdoses at work, also pointed at a similar focus on the now and how that had helped her transform her experience at work. She describes, in detail, how she could "even feel where the muscles originate from, join to and end. This helps movement execution become easier as you can feel your muscles and 'access' them easier" (*Reddit* user 1).

Slowness at work was further regarded as the main ingredient to "authentic" work. The notion of authenticity surfaced both in relation to work and "the self". The blurring line between work and leisure, both closely linked to identity, therefore seems to play out in overlapping reasons of use. Speaking of microdosing to access an "authentic place" (Santiago, 37, painter) within oneself as well as to reach one's full potential at work, Santiago suggests that microdosing allows him to create "something rather than copying. […] That's the question of being honest, being authentic with your work […] then you create something worthy". In a similar fashion, he shows the same pursuit of authenticity in his personal life: "it helps you be completely and truly yourself, raw and authentic".

The theme of authenticity also dominated the work discourse on *Reddit*, with numerous self-reports reading "I feel like my work has become more authentic […] I can put more of myself in it" (*Reddit* user 36) and in relation to one's social environment at work: "I am more original and honest with myself. I can be authentic with my colleagues […] I think that influences my work too" (*Reddit* user 12).

Fleming (2009: 6) suggests that an "immense ideological apparatus is being deployed that aims to develop a 'dialogue' between capital and labour, work and life; and to harness competitive, productive, and innovative energies required in the global economy." Appealing to the notion of the authentic self at work, according to Fleming (2009), is one of the ways such ends are met. In this light, individuals take up microdosing as a technology of the self with the aim of self-actualizing and accessing the authentic self that distinguishes them from the "grey masses" and enables negotiating who one "really is".

Tune In: Microdosing as a Self-Help Technology

"The unexamined life is not worth living," Socrates famously said during his trial for corrupting the youngsters of Ancient Greece. This is also a motto that echoed in the accounts of a number of this study's participants. Some participants stated that microdosing may be used as a tool for self-examination and subsequent improvement, with the goal of living a healthier, happy, and satisfied life. These views, shared by our research participants, paved the way for the development of the second type of use: microdosing as a self-help technology. Three out of seven interviews and eleven Reddit reports had echoes of self-help in microdosing practices.

For Liepa, a twenty-three year old media studies student based in Amsterdam, microdosing during her days off is a tool of self-examination that "has much to do with" her philosophical stance. For Liepa, microdosing is a tool for "continuous thinking and going deeper within yourself" (Liepa, 23, student). Liepa's use of microdosing in her daily life resembles what is known as "self-help". She asked: "if you do not know yourself, how can you be sure of anything else?" Drawing from her assumption that self-examination leads to positive change in oneself, she argued that "change only comes from willingness to change", giving way to her opinion that "no one can really help you, you need to do the work yourself". She took full responsibility for modifying herself so as to be able to deal with various issues in her life. Liepa explains that her motivation to microdose arose from a realization of personal trauma, and the wish to liberate herself from behaviors that resulted from it. Rimke (2000: 62) defines self-help as an activity "presumed to be voluntary and individualistic. Based upon notions such as choice, autonomy and

freedom". Self-help relies upon the doctrine of individuality and calls for self-modification in search of improvement. In self-help logic, identifying their own "issues" through examination, individuals are set out to adjust themselves and their behaviour in the quest for a better self.

What distinguishes microdosing as a self-help technology from phenomena such as self-help books is that it does not rely on professionals who are given the authority to provide counsel and assist individuals through the process of self-modification. Instead, the power of self-knowledge and self-modification is sealed within each individual, and these answers may be "extracted" with the use of microdosing. This discourse showed in numerous *Reddit* self-reports. One user, for instance, suggests that "for the first time, the *how*" of life is clear within her grasp. As if the answers always were, because truly, it always has been." (*Reddit* user 22). The access to these answers is gained through "looking inward instead of outward" (*Reddit* user 21). Some participants went as far as seeing social norms as obstacles to self-autonomy. Santiago (37, painter) explains that:

> "the answers are within you. The social model doesn't allow you to express yourself […] When you do it (*microdosing*) with purpose then you can […] see who you are finally, as you really are. As not the product of your background or cultural issues…" (Santiago, 37, Painter).

Liepa (23, Student) describes microdosing as a method of self-help and self-therapy by providing an analogy of "performing a micro-chirurgical surgery". She offers that "it's different from going to see someone and figure out where your problem is … instead I take kitchen knives and perform it on myself, which is interesting and can be fun… but you need to have guts for that". For Liepa, microdosing is a tool for self-transformation. She states that self-examination and self-modification were more legitimate tools to work on "imperfections" than relying on expert help: "No one can know you better than you [..] not even a very good therapist or a bestselling author".

This discourse, with the self at its axis, contributes to building a shared worldview in which the individual is seen as a sole source of self-mastery and self-control and is exalted over the social. In other words, the social can get in the way of true self-realization. It can work against discovering your "true self". Rimke (2000) suggests that the focus on the self and suspicion towards the social is consistent with the ideological and political rationalities advertised in liberal democracies. In this line of thought, technologies of the self help in further producing, organizing and disseminating "liberal modes of truth about the social world" (62). The production of selves through technologies of self-help produces what Rimke (2000) calls the "self-helping citizens".

The hightened preoccupation with self-liberation and improvement is a product of hyper-individuality. Advocates of the principle of individuality suggest that the social world is an aggregation of autonomous, self-governing individuals rather than a historical product of interconnected social processes, rendering individuals the sole responsible entities for their failures, successes, happiness and sadness. Employing technologies such as microdoses of psychedelics, thus, becomes a means of transforming and governing the self in a highly individualist society. This aim is one of the communalities between the first and second types, as in both these uses individuals focus on improving themselves in various ways. Yet, they differ in terms of the lifestyle sector in which the practice takes place and in which the aims of microdosing "effects" are concentrated.

Drop Out: Microdosing as a Technology of 'Slow Living'

The third type of microdosing practice that arose from the data analysis was slowing down. The interviewees voiced their opposition to the perceived ever-increasing social and technological speed. Both the interviews and the Reddit data revealed that one of the reasons people microdose traditional psychedelics (mainly LSD) was to add 'slowness' to their routines, relationships, and lives.

The need for slowness surfaces from a reflection on social and cultural processes in 21st century society. The features of the changing pattern of our society make individuals seek "authentic" ways of living. One of these surfaced features was the mobility the interviewees conveyed: the study participants all lived in major cities across the Netherlands and described the quick-paced city life. They consciously introduced 'slowness' through microdosing practices as a counter-reaction. For instance, Lotte (23, photographer) offered that "living in the city, there is so much to do… there is a lot of trouble going on. You can read it in the news, can see it in cinema or you can just step in the streets and you see all this trouble. And they really indirectly tell you 'hey… take care'. And I think that asks for more time to be with yourself."

Many interviewers and Redditors described today's world as chaotic and noisy. According to Lotte (23, photographer), this leads to overload and either shutting oneself off or using technologies, such as microdosing, to regulate oneself in order to traverse this new order. She explains that introducing microdosing into her weekly schedule in her free time has allowed her to take time for "slowness". She describes what she means by this new-found slowness, which includes activities such as "baking bread in my own oven, pouring myself a nice coffee…seeing maybe six people, but really look them in the eye and maybe have a small talk or conversation."

She states that microdosing played a role in determining and building her current lifestyle to invite "slow-living" by inducing reflexivity, focus and take-away "lessons" from altered states and utilizing them in her everyday life.

Ingesting psychedelics helps break the "cycle" of habits and replace them with a reflexive "awareness". However, while breaking unwanted habits and thought patterns was also a focus of individuals' microdosing as "self-help", these two practices differ in a way that the self-help people saw a particular issue or issues within themselves that motivated them to explore and transform themselves, while those focused on slow living saw the issue to be outside themselves, (e.g. accelerating pace of life) that they found ways to deal with through increased focus and relaxation.

Aurel, a twenty-six-year-old software developer from Utrecht, discusses how taking up microdosing on the weekend to "slow down," along with not planning anything during his microdosing days, helps him to disconnect from his hectic daily life. Furthermore, this apparent slowness is caused by a combination of contextual variables (set and setting), such as selecting a time of day or week that is reserved for LSD-induced slowness. To him, a combination of these factors turns the "weekend into some kind of... something less of two days between work and more like a very relaxing experience. Something to be detached from the day-to-day" (Aurel, software engineer, 26). The individuals in this sample described becoming aware of their own behavioural patterns in the larger cultural context and choosing to have moments of mindful activities with the aid of microdosing. This type of use of psychedelic microdosing resembles a practice of "slow living": the "conscious negotiation of the different temporalities which make up our everyday lives, deriving from a commitment to occupy time more attentively" (Parkins, 2004: 364).

Another interesting pattern within this type was the way individuals choose to consume and abstain from consuming various types of media. Two interview participants, as well as 11 *Reddit* self-reports, mentioned that after starting to microdose, they quit using various strands of media, most often news media, and social media.

Lars, a twenty-nine-year-old designer from Rotterdam, explains how microdosing has helped him stop consuming news media. He describes that in his everyday life, intimate use of technology exposes him to news from around the globe that takes up his attention. By microdosing, he came to the realization that "all that energy that would go into thinking about that now" (Lars, 29, designer) he could spend on improving himself with practices such as meditation. On a similar note, a *Reddit* user adds that forms of social media are "a waste of time and ironically disconnect you from the world and the moment" (*Reddit* user 15). Along these lines, refusing exposure to all sorts of media becomes a technology protecting the boundary of the personal space.

In the past decades, distant happenings have entered the private sphere and reflected upon the intimacies of the self. Various types of media have played a role in bringing news and information of various types and qualities into our lives. Thus, mediated experiences have long been impacting self-identity and social relationships. This rising use of media is one of the factors contributing to the felt uncertainty in the current era (Couldry, 2015; Katsirea, 2018). The introduction of social media and smartphones has provided immediate access to events around the world (as well as your neighbour's posts about her last vacation). The individuals in this study, through reflexivity in these blocked-out days of slow living and microdosing, have noted becoming increasingly aware of the 'necessary' boundaries. One *Reddit* user explained that slowness is "a choice. And while we choose based on a plethora of variables, the important factor here is that we own those choices" (*Reddit* user 22).

In talking about their practices to achieve slowness, interview participants refer to (cognitive) science and research on psychedelics. They highlight physiological aspects of psychedelics and refer to "firing neurons" (Eduardo, 26, software engineer) and the "brain functioning differently" (Aurel, 26, software engineer) to induce reflexivity and focus on improving behaviors. The interviewees referred to the features of the substances that allow them to control their bodies in ways that give them control over their behaviors and experiences. Similar to Beaton et al.'s (2020) study, in this way individuals appealed to knowledgeability not only to justify their microdosing, but to argue for microdosing as an already knowledgeable self-helping individual.

CONCLUSION

Media accounts on the increasing interest in psychedelic usage frame microdosing as a technique of self-enhancement, with the goal of optimizing oneself for job efficiency. However, beyond sensational media representations, small doses of psychedelics have entered people's lives for various purposes and aims. With this study, we show how individuals across various fields use and make sense of psychedelic microdosing in their everyday lives. By inductively studying qualitative data gathered through seven interviews with people who microdose psychedelics in the Netherlands and 67 self-reports published on social media platform *Reddit,* we find three major modes of microdosing:

(1) microdosing as a technology of self-esteem and control at work,
(2) microdosing as a self-help technology, and
(3) microdosing as a technology of 'slow living'.

These uses of psychedelic microdosing today also share underlying communalities such as finding focus, authenticity, becoming more self-reflexive and, by doing so, improving oneself in various ways throughout

contexts. These findings confirm Johnstad's (2018) conclusion that people who microdose aim for improvements in general well-being, rather than a radical shift in consciousness brought about by higher doses of these substances.

Further, microdosing as a technology of raising self-esteem and gaining the feeling of control in work contexts is systematically taken up during the week and used particularly with the aim of doing your job "authentically" and being in control. This finding shows that microdosing is not used solely to get an extra "edge" at work, but to find meaning and induce self-esteem at work. Similarly, microdosing surfaced as a technology of self-help, where individuals microdosed on a less systematic schedule and did so both in leisure and work sectors. In both these modes of uses, the responsibility for both successes and failures either in one's personal or professional life is transferred completely to the individual, leaving one in constant negotiation of the self and its modification and improvement. Finally, many used psychedelics to slow down the time that they felt was moving quicker with the increasing pace of life in the current era. This microdosing takes place in the comfort of people's own homes that provide a space of resistance to a fast-paced environment, and can be considered as a tool to access the mindful state of slow living.

We suggest that the renewed turn towards various technologies such as microdosing is neither new nor unexpected. According to our respondents, it is, rather, an answer to trends such as increasingly pervasive technologies that both bring convenience and increase the pace - and consequently the expectations - of production in today's working environment. Furthermore, we argue that today's applications of microdosing psychedelics mimic those of the 1960s counterculture movement, while also becoming integrated into today's social systems and institutions. In other words, a substantial percentage of society continues to "turn on, tune in, and drop out," albeit in increasingly subtle ways. The difference is, they do so at the office, or at home in the weekend, and with doses that make the change in perception barely noticeable. Individualism has relocated the weight of public issues into the sphere of personal troubles (Mills, 2000), leaving individuals responsible for their own happiness and failures in a society that prides the meritocratic frame of the 'American dream'. In this light, and in the words of this study's participant Mateo (29, software engineer): "either you adapt, or you don't".

All three modes of microdosing conceptualized in this study are a response to an increasingly rushed, demanding, individualist society where people, driven by the responsibility they feel for their successes and failures, make use of various technologies to manage their minds and bodies to be more productive, healthy, reflexive and authentic. Individuals in this study stressed that microdosing played a role in "thinking out of the box", distinguishing the authentic self from the inauthentic society, and reflexively re-evaluating and re-defining self-identity. In this way, our respondents are turning themselves into self-helping and self-governing citizens.

Since Foucault (1988) and Rose (1990) established their now-classical sociological ideas on technologies of the self and "humanization of labor," the social environment and its actors have become increasingly subject to self-modification and self-mastery. From phenomena such as plastic surgery, to nootropics or psychedelics, to new "hype" diets, we are more than ever actively encouraged to "improve", be it with regard to work, relationships or appearance. In this continuous need for growth, human actors come into close contact with psychoactive substances, self-help experts or even surgical knives in order to gain an edge over others. In this study, which looks at how individuals understand self-adjustment through the use of psychedelic substances, we applied and further developed theories introduced over three decades ago, and showed how they are relevant today. Further, we demonstrated how self-modification through the use of substances takes different shapes and how classic psychedelics find new uses and gain new meanings through their appropriation in various contexts (control at work, self-help, slow living).

Microdosing has acquired a new degree of commercial credibility in the early 2020s. Microdosing 'kits,' or boxes of psychedelic mushrooms or truffles dosed and stuffed into little capsule receptacles, have been made accessible in a number of European nations, as have bottles of the therapeutic LSD product Microdelics (Brand, 2020) in Canada. The microdosing trend, which started in the fringes of the internet, is now entering the mainstream. This study captures the attitudes, uses and meaning-making regarding this phenomenon in its time of transition from the periphery to the mainstream. It shows how the psychedelics that inspired the culture preaching "turn on, tune in and drop out", gained a new meaning in today's society, urging people to "turn up, clock in and check out".

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