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Master thesis

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The Process of Psychedelic Integration

A thematic analysis of healthy psilocybin research participants' accounts

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Abstract

In recent years, research on psychedelic-assisted psychotherapy (PAP) has grown tremendously with studies showing great promise in the treatment of numerous psychiatric disorders, as well as positive transformation in the lives of healthy people. While the mechanisms of change in PAP are not fully understood, many argue that 'integration' is an essential aspect of achieving long-term benefits, although the concept remains undertheorized and lacks empirical investigation. Meanwhile, very few qualitative studies have been conducted in the context of randomized controlled trials (RTC's), and none including healthy research participants. Qualitative studies, it has been argued, could prove essential for understanding the multidimensional nature of psychedelic change processes. The aim of this thesis, therefore, was to investigate if and how integration plays a role in how healthy people are affected by psilocybin experiences in the long-term using qualitative methods.

We developed a conceptual model of integration processes consisting of six dimensions: change, action, support, challenges, understandings, and temporality. Guided by this, we conducted 8 semi-structured interviews with healthy psilocybin research participants 6 months to 4,5 years after their participation. We analyzed these using Reflexive Thematic Analysis (Braun & Clarke, 2022b), generating eight main themes: 1) A Motivated approach, 2) An Insightful experience, 3) An Initial period of Effects, 4) Lasting Change, 5) Change through Action, 6) Action through Prior Understandings, 7) Processing through Support, and 8) Integration in Context. Together, these tell a story of how participants generally experienced lasting positive change in their lives as a result of their psilocybin experiences. This change, however, fluctuated and developed over time relating to the way they approached their experiences, the insights they gained during their experiences, the period following their experience, the actions they took to create change, prior understandings aiding them in creating change, support they received during and after their experiences, and their life circumstances, showing a role of both personal, social, and contextual factors in psychedelic change processes. We discuss our results, first in relation to other qualitative empirical studies, assessing their generalizability, next in relation to our model of integration and other theories, expanding our understanding beyond our own theory of integration, and finally in relation to strengths and limitation of our methodology, suggesting avenues for future studies throughout. We conclude with further perspectives and underline the need for more qualitative studies investigating integration processes in PAP.

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Introduction

Motivation

We spent the entirety of 2022 in a research internship at The Neurobiology Research Unit (NRU) at Rigshospitalet in Copenhagen as a part of the psychological subdepartment of the psychedelic research group. Here, during the preceding five years, over forty healthy people had participated in studies investigating the neurological and neurocognitive outcomes of a single psilocybin session – the psychoactive substance in psilocybin mushrooms, commonly known as 'magic mushrooms' (studies described in e.g. Madsen et al., 2019, 2020, 2021; Madsen & Knudsen, 2021; McCulloch, Grzywacz, et al., 2022; McCulloch, Madsen, et al., 2022; Stenbæk et al., 2021). Aside from a study conducted at Aalborg university (Goodwin et al., 2022) these were the only clinical trials investigating psychedelic substances in Denmark since their prohibition in 1974 (Larsen, 2016, 2021).

The research at NRU is not unique. For the past two decades, a new wave of research into these mind-changing substances has been blooming, often referred to as the "psychedelic renaissance" (Yaden et al., 2021). Contemporary studies have investigated the potential of psychedelics – psilocybin, LSD, DMT, mescaline and iboga, as well as MDMA and ketamine - in treating numerous psychiatric disorders (Aday et al., 2020; Breeksema et al., 2020). Promising results have been found for depression (Goodwin et al., 2022), anxiety (Gasser et al., 2015), PTSD (Sessa, 2017) and addiction (Miranda et al., 2021), among others (Luoma et al., 2020), and psilocybin has been given the 'breakthrough therapy' designation by the US FDA (Thomas et al., 2017). Further, adverse effects in studies are rare (Bender & Hellerstein, 2022; Dutta, 2012; Luoma et al., 2020; Watts et al., 2017; Wheeler & Dyer, 2020) and research also indicates their potential for 'the betterment of well people' – creating positive change in people without psychiatric diagnoses as well (Gandy, 2019).

Psychedelic substances have long been known as powerful agents of change. Before the eyes of Western science were opened to psychedelics with the synthesis of LSD by Albert Hoffman in 1943, psychedelics played an integral part in numerous cultures around the world (Dutta, 2012). The ingestion of psychoactive plants and mushrooms was often tied to religious and spiritual

practices, as seen within the Mexican 'Mushroom Cults' who referred to psilocybin mushrooms as 'The Flesh of the Gods' – practices facilitated by spiritual authorities, often referred to as 'shamans', who among other purposes used them to bring about healing (Metzner, 1998; Schultes, 1969; K. R. Smith, 2016). For around 30 years in the middle of the last century a number of these mind changing substances, including psilocybin, were investigated intensely, particularly within psychology, both as models of psychosis and therapeutic agents (Barrett & Griffiths, 2017; Osmond, 1957) However, Western culture's relationship with psychedelics has always been fraught with opposition. As the Spanish conquistadors outlawed the indigenous use of psilocybin mushrooms with the colonization of Mesoamerica due to their perceived threat against the spiritual authority of the church, so did western governments by the 1970's prohibit all use of psychedelics – according to some due to their perceived threat against conservative political authority - effectively bringing psychedelic research to a halt up until recently (Elcock, 2013; K. R. Smith, 2016).

Today, with the advent of this new wave of research, central questions relate to the efficacy of treatments – whether they produce truly lasting results – as well as their mechanisms of change, be it therapeutic or otherwise (van Elk & Yaden, 2022). Carefully, recent reviews have concluded that psychedelics, under proper screening and monitoring, can mediate positive long-term psychological changes (Aday et al., 2020; Bender & Hellerstein, 2022), although the ideal means of using them to minimize adverse events and maximize therapeutic effects remains disputed, and long-term follow-up has been limited (Bender & Hellerstein, 2022). The pharmacological, neurological, and psychological mechanisms behind therapeutic effects are being investigated (van Elk & Yaden, 2022), with a particular focus, is seems to us, being put into studying the neurological underpinnings of psychedelic experiences (de Vos et al., 2021; Olson, 2020, 2022). Seeing that this, too, was the main focus at NRU we started to ponder whether in the psychedelic field of today the overwhelming interest in the psychedelic drugs themselves might risk eclipsing an equally, or perhaps even more important, aspect of the story: the person. So, in a moment of what might be considered radical ideation, we thought: "Why not talk to them?".

Sensing a lack of qualitative studies in the field, we conducted a scoping review for our internship report (Nielsen & Riis-Vestergaard, 2022) identifying 29 papers in total describing qualitative inquiry into psychedelic experiences. However, in the context of experimental pilot studies and randomized controlled trials (RCTs) arguably leading the charge in this new wave of psychedelic

research, we found only five papers reporting long-term qualitative follow-ups (i.e. Belser et al., 2017; Gasser et al., 2015; Noorani et al., 2018; Swift et al., 2017; Watts et al., 2017), the rest being naturalistic studies of psychedelic users outside of experimental research. Of these select five, only four used psilocybin (Gasser et al., 2015 excepted) and none investigated healthy participants. Considering the fact that these five qualitative studies included 54 participants all together, compared to the 343 clinical patients and over 1800 healthy volunteers who have participated in psychedelic research trials since 1991 (Bender & Hellerstein, 2022), qualitative inquiry into the experiences of healthy people seemed like an avenue ripe for exploration.

Previous qualitative studies have posed arguments for the value that qualitative research can bring to the field of psychedelic science. Quantitative measurements, as pointed out by Breeksema et al. (2020), do not fully capture the highly personalized nature of psychedelic experiences. Qualitative studies can therefore contribute with addressing meaning, inner experience, and behavior change in complex multidimensional contexts (Swift et al., 2017); with exploring the connection between drug- and non-drug factors within these (Noorani et al., 2018); and generate more holistic accounts of psychedelic change processes which can inform hypotheses around underlying mechanisms to be tested quantitatively (Breeksema et al., 2020; Watts et al., 2017). This interest in the personal nature of psychedelic change, however, is not new. Since the heyday of psychedelic science there has been an awareness that these substances might not be merely medicines that cure, but tools to be worked with in a personalized manner. In 1967 Walter Pahnke, a seminal researcher in the history of psychedelic science, outlined a suspicion still debated to this day:

> *"Indications are, however, that what one does with a psychedelic experience may be more important than merely having it. Without integration into the on-going life of the individual, the experience may be only an irrelevant memory, no matter how beautiful. Much work is needed to integrate the insights from LSD when used as a part of psychotherapy."* (Pahnke, 1967, p. 1)

Thus, he highlighted the importance of personal engagement in therapeutic psychedelic change processes – what people *do* with psychedelic experiences and the insights gained from them. Today, the practice of 'integration' has become an integral part of psychedelic therapy and research (Earleywine et al., 2022; Gorman et al., 2021; Pilecki et al., 2021). However, recent articles have called the concept both undertheorized and understudied empirically (Earleywine et al., 2022;

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Frymann et al., 2022; Sloshower et al., 2020). In the studies at Rigshospitalet, integration sessions where participants could process their experiences with therapists were also included (Dea Siggaard Stenbæk, personal communication, 26/05-2023). However, since participants were healthy volunteers screened for psychiatric diagnoses (McCulloch, Grzywacz, et al., 2022), the process surrounding their psilocybin experience was less elaborate than in clinical studies (e.g. Sloshower et al., 2020), and supposedly, most of their integration happened on their own terms, if at all. Essentially, participants were not united by a common therapeutic goal nor guided by a common therapeutic practice – only by their scientific volunteering in a neurological experiment. For us, this raised interesting questions regarding what happens when people are simply given psychedelic experiences outside of a specific treatment context. Therefore, we saw our opportunity to leverage this pool of participants to investigate in depth these personal aspects of psychedelic experiences and transformation.

Research question and study design

Based on the motivations described above, we pose the following research question to guide the present investigation:

What role, if any, does integration play in how healthy people are affected by psilocybin experiences?

To answer this question, we will address the following sub-questions:

1. What is currently known about psilocybin experiences and their long-term effects, and what is the relevance of integration processes to this?
2. What themes can be found in participants' descriptions of how they have been affected by their psilocybin experiences?
3. Do integration processes play a role in these themes, and if so, what role do they play?

In *Chapter 1: Background* we address the first sub question by describing the scientific literature on what psilocybin and the psychedelic experience it can produce is, as well a number of factors influencing this experience and its long-term effects. We then describe the concept of integration and our model of integration processes including the 6 dimensions which we use as an operational framework for the design of our interview protocol.

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In *Chapter 2: Methods* we describe the methodology of our investigation – a semi-structured interview study employing Reflexive Thematic Analysis (RTA). This chapter includes an elaboration on our metatheoretical assumptions and its implications for the use of our methods, our participants, the design of our interview protocol, our approach to interviewing, the transcription process, and our specific approach to RTA.

In *Chapter 3: Analysis* we describe the 8 themes and additional subthemes resulting from our analysis which together tell a story of how participants describe having been affected by their psilocybin experiences and the role played by aspects of integration processes, as well as other phenomena which stood out from their accounts as important for how they had been affected, thus answering subquestion 2 and 3.

In *Chapter 4: Conclusions and discussion* we first conclude on our analysis and then perform a three-part discussion consisting of an empirical, theoretical, and methodological section. First, we compare our results to other qualitative empirical studies, discussing their generalizability to other populations. Next, we discuss the limitations of our theory of integration in relation to our results and discuss how other theories can inform our analysis and contribute to our model. Finally, we discuss the strengths and limitations of our methodology, their implications for our results, and how it might have been improved. Throughout this discussion, we suggest improvements for future research and hypotheses to be tested.

In *Chapter 5: Further perspectives* we relate our findings to the wider field of psychedelic research, clinical practice, and community.

Study Demarcations

To answer our research questions, it is important first to demarcate the areas we investigate within the topic of investigation, as well as how we understand the various phenomena and concepts that guide this investigation.

Psychological research area

Our study specifically takes a qualitative psychological approach to the topic of psychedelic experiences and their effects on people's lives. In this approach the psychological phenomena in

focus include what people experience and how they describe making meaning out of their experiences in their everyday life, which are defined by their social contexts and personal beliefs (Braun & Clarke, 2022b). Our focus on both personal and social phenomena related to participants' experiences (e.g. actions, understandings, and support) arguably places our study at the intersection of personality and social psychology (DeLamater & Collett, 2018; Køppe & Dammeyer, 2014). We also focus on contextual influences, both in influencing the experience of our participants and our own scientific practice, thus drawing upon aspects of community psychology which understands experiences and research as situated within communities and cultural contexts (Elsass, 2004). Finally, we primarily draw on clinical psychological literature from the psychedelic research field and are motivated by how our results might inform the development of treatments using psilocybin, thus also placing this investigation within the field of clinical psychology (Graham et al., 2021).

Psilocybin experiences in healthy research participants

In this study, we focus on healthy psilocybin research participants, defined as participants who have been screened for psychiatric disorders, neurological and somatic illnesses (Madsen et al., 2019). Further, we only investigate psilocybin experiences (referred to as 'PE' from here on) within psilocybin research. There are ongoing investigations and debates on how similar or dissimilar different psychedelic substances are in their effects (Zamberlan et al., 2018), but generally, psychedelic experiences are taken to have the same basic components across substances (Amada et al., 2020; Holze et al., 2022; Preller & Vollenweider, 2018). Therefore, while only investigating psilocybin experiences, we will use 'psychedelic experience' and 'psilocybin experience' somewhat interchangeably and draw on background literature describing psychedelic experiences in general. Specifically, we will focus on experiences elicited at doses of 0.25 – 0.3 mg/kg (what our participants received), as experiences vary with dosage size, and smaller doses can even be subperceptual (i.e. microdoses; Cavanna et al., 2022) - thus not eliciting the experience we are investigating.

We are specifically interested in the *experiential* effects of psilocybin, not the biological or neurochemical. This refers to another ongoing debate within the field regarding the importance of the neurobiological effects for the psychotherapeutic properties of psychedelics as opposed to the psychological effects (Olson, 2020; Yaden & Griffiths, 2020). In line with Simo Køppe's (in Sonne-Ragans,

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2019) understanding of the relation between different ontological levels (see Figure 1), we hold that whilst the psychological effects of psilocybin are emergent from the neurobiological effects, they are not reducible to them. Thus, we agree with the contention that a drug capable of producing the same neurobiological stimulations as psilocybin but without the subjective effects could not have the same effects on people's lives as psilocybin does, since the subjective experience and the meaning it contains is irreducible to its neurobiological correlates (Yaden & Griffiths, 2020). Further, as Figure 1 indicates, we hold that the psychological level is inextricably linked with the societal level, underlining the relevance of investigation of PE's through interviews focusing on the contextual nuances of people's lives.
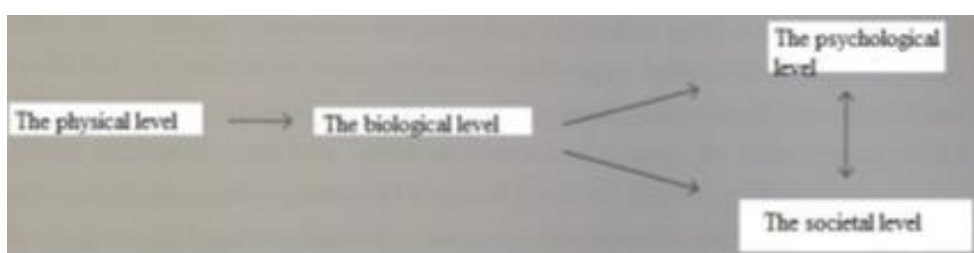
Figure 1: Model of ontological levels based on Simo Køppe's model (Sonne-Ragans, 2019).

Long-term effects

Given our qualitative approach, 'effects' are understood in a phenomenological sense – what meaning they have made from what they have experienced, and how they describe and reflect on this (Sonne-Ragans, 2019). In this way, we are keenly aware of how participants' meaning making processes in relation to their lives in the context of an interview affect what stories they tell and how they tell it. This understanding entails both *what* influence they describe (e.g. a change in their lives), as well as *how* the experience has come to influence them – what they attribute that influence to (for example, insights gained during the experience or an active effort on their part to make a change). However, it should be noted that we are more interested in the form of how they have been affected, rather than the specific content of how their descriptions of they have been affected. That is, we are not interested in thematically categorizing the specific themes of potential insights gained (such as 'love') as much as we are interested in the fact that they have gained insights and what role that has played in their life (such as 'insights resulted in change'). This approach focuses more on contributing to building theories of through what processes and mechanisms psychedelics produce change, rather than the

exact change they produce, even though descriptions of this will inevitably be included. Finally, we are not simply interested in the effects of the acute psilocybin experience, but rather the influence of these experiences on participants' lives in the long-term. Our study therefore has the characteristics of a long-term follow-up study since our participants have had their psilocybin experience between 6 months to 4,5 years prior to our interviews. Other follow-up studies have been conducted with time intervals ranging from 2 weeks to 4,5 years (Aday et al., 2020), meaning that our study focuses on the broadest follow-up interval conducted so far.

Dimensions of integration processes

This inquiry will be guided by our interest in psychedelic integration, which we have developed a conceptual model of, partially based on our internship project. As will be described, there are several dimensions of integration processes which are said to play a role in how people are affected by psilocybin experiences. In our model, these include change, action, support, challenges, understandings, and temporality, as will be described in Chapter 1. In our view, these dimensions offer a helpful framework for covering a broad range of relevant topics when investigating the multidimensional nature of the effects of psychedelic experiences within people's lives. An important point to be made from the onset, however, is that while the theory of integration guides our investigation our inquiry is partially inductive and exploratory, meaning that we also pursue interesting and unexpected themes in the data-collection as well as in the analytical process which do not easily fit into this theoretical understanding. We see this as an important step in expanding on our understanding of integration processes, as well as a necessary acknowledgement of the multifaceted and organic nature of the investigated phenomena and the research process itself, where knowledge grows throughout, in turn changing the understandings guiding the process (Braun & Clarke, 2022b).

Study Contribution

In conducting this study, we hope to contribute to the field by expanding on the limited qualitative descriptions of how psilocybin experiences influence people's lives. By analyzing this through the theory of integration we can contribute to the field of psychedelic research by adding nuanced descriptions of integration processes and hypotheses regarding what importance these processes might have, as well as expand on the concept of integration. By understanding what processes the

participants have gone through, we might hypothesize on what guidance is relevant for clinical populations as well. In this way our analysis could in the long run contribute to the development of treatment paradigms for psilocybin-assisted therapy.

Chapter 1: Background

"To fathom hell, or soar angelic, just take a pinch of psychedelic."

\- Humphry Osmond

In this chapter, we outline the understanding of psilocybin and integration which make up the theory on which we base our investigation. First, we describe what psilocybin is, explaining the 'psychedelic' effects it produces and outlining research on what factors influence the experience and its outcomes, including extrapharmacological factors. Secondly, we describe the theory around the concept of integration, presenting our own model of integration processes consisting of six dimensions.

Psilocybin

Psilocybin is a chemical found in more than 200 species of mushrooms, most commonly within the *psilocybe* genus (Frey, 2020). When ingested, psilocybin is converted into psilocin, which is the pharmacologically active form of the substance (Frey, 2020). Psilocin has a chemical structure similar to serotonin and also binds to serotonin receptors in the brain to produce its effects (European Monitoring Centre for Drugs and Drug Addiction, 2023; Frey, 2020). Psilocybin has a low physiological toxicity, low potential for abuse, and low risk of lasting adverse psychological effects (Lowe et al., 2021). In research, subjects are often given a synthetic version of psilocybin in capsules, including in the studies at NRU (Madsen et al., 2020; Stenbæk et al., 2021). There is still some debate over whether the effects of ingesting a psilocybin mushroom differ from the effects of ingesting synthetic psilocybin (Lowe et al., 2021). The debate centers around what's called 'the entourage effect' which posits that since psilocybin mushrooms contain many other chemicals that psilocybin, there is possibly a synergistic effect of these (Lowe et al., 2021). Engaging in this debate, however, is beyond the scope of our study. As with most psychoactive substances, the effects of psilocybin vary depending on dosage, with higher doses producing stronger effects (Lyvers & Meester, 2012; Madsen & Knudsen, 2021; McCulloch, Grzywacz, et al., 2022). At the dosage level of 0.25 – 0.3 mg/kg psilocybin has the capacity to produce a 'psychedelic experience' lasting between 3 to 6 hours, before subsiding to negligible levels (Lowe et al., 2021).

The psychedelic experience

The psychedelic experience is usually characterized by a unique change in thoughts, emotions, and bodily perceptions, as well as visual alterations that, taken together, produce a markedly different experience of reality and of oneself (Barrett & Griffiths, 2017; McCulloch, Grzywacz, et al., 2022; Studerus et al., 2011). People often describe it as being an introspective experience characterized by a range of deeply felt emotions (Zamaria, 2016). The PE is often reported to create a dissolution of one's sense of self, resulting in an experience of being one with everything, sometimes referred to as 'unity consciousness' or 'oceanic boundlessness' (Studerus et al., 2011; Zamaria, 2016). There is a general agreement that psilocybin does not produce actual hallucinations, but rather "pseudo-hallucinations" where one still maintains an awareness that one is under the influence of a substance (McCulloch, Grzywacz, et al., 2022; Studerus et al., 2011). An aspect of psychedelic experiences that have been given particular attention is their ability to occasion mystical experiences, described as:

> "[…] feelings of unity and interconnectedness with all people and things, a sense of sacredness, feelings of joy, peace and awe, a sense of transcending normal time and space, ineffability and an intuitive belief that the experience is a source of objective truth about the nature of reality." (James et al., 2020, p. 2)

It should be noted that psilocybin does not guarantee mystical experience (Barrett & Griffiths, 2017). Mystical experiences can be produced at our dosage level, but even then they are not guaranteed (Barrett & Griffiths, 2017). In the studies at NRU, roughly half of participants had mystical experiences (Knudsen, 2023). Mystical experience has been positively linked to therapeutic outcome (Barrett & Griffiths, 2017; James et al., 2020; McCulloch, Grzywacz, et al., 2022; Zamaria, 2016), indicating that psychotherapeutic benefits are also dependent on the quality of the experience, and not simply the dose or intensity of drug effects (James et al., 2020). This also applies for benefits that are not solely psychotherapeutic, such as improved subjective life quality (McCulloch, Grzywacz, et al., 2022). What, then, determines what experience one has, if not just the dosage size? In the following section, we describe the extrapharmacological factors that have been found to influence the quality of the psychedelic experience.

Extrapharmacological factors

There is mounting evidence that what is often referred to as 'extrapharmacological' factors – everything *around* the experience – plays an important role in the quality of experience (Barrett & Griffiths, 2017; James et al., 2020). In particular, the *set* and *setting* of the experience is highlighted as important (Preller & Vollenweider, 2018; Thal et al., 2022). *Set* refers to intrapersonal aspects such as one's personality, expectations and mood, whereas *setting* refers to aspects outside the person, such as the physical, social and cultural environment in which psilocybin is ingested, and managing set and setting entails ensuring a supportive environment (Preller & Vollenweider, 2018). What constitutes a supportive environment, however, ultimately depends on the person having the PE, with the most important thing being that they feel safe and comfortable (Johnson et al., 2008). However, there are some general guidelines that most modern studies tend to follow (Johnson et al., 2008). The subject needs to be properly prepared by receiving psychoeducation regarding the potential effects and side effects of psilocybin (Gorman et al., 2021; Johnson et al., 2008). Prior to the psilocybin session, the establishment of good rapport and trust between the facilitator and participant is also seen as essential (Aixalà & Bouso, 2022; Johnson et al., 2008). The physical environment is often cozier and more aesthetically pleasing than a typical hospital room (Johnson et al., 2008). Music is also believed to be important in curating and supporting a PE (Messell et al., 2022; Strickland et al., 2021).

It has been argued that extra-pharmacological factors are almost as important as the substance itself (Carhart-Harris, Roseman, et al., 2018; Haijen et al., 2018). As explained, the quality of the experience has been found to affect the benefits gained, so in influencing the quality of the experience these factors also influence the outcome of the experience (Haijen et al., 2018; James et al., 2020). In fact, being comfortable with the setting and facilitators have been linked to increased long-term well-being, whereas a negative context might actually be harmful (Carhart-Harris, Roseman, et al., 2018; Thal et al., 2022). Further, it has been argued that these factors might even amplify the effects of the substance (Thal et al., 2022). Therefore, taking care of having the right set and setting could be almost as important as the substance itself, as better therapeutic effects might be achieved when the PE happens in a supportive environment (Barrett & Griffiths, 2017; James et al., 2020; Thal et al., 2022).

Given the importance of extrapharmacological factors, psychedelics are most often administered within the context of psychedelic-assisted psychotherapy (PAP) which has been approached with a number of specific psychological treatment models, often for specific treatment purposes (Cavarra et al., 2022). This can be said to relate to the hypothesis that psychedelics act as nonspecific catalysts which should be guided by psychotherapeutic practices to facilitate transformative change (Scheidegger, 2021). Specific therapeutic models include group therapy (Shnayder et al., 2023), Cognitive Behavior Therapy and Motivational Enhancement Therapy for alcohol dependence (Bogenschutz et al., 2015, 2022), Acceptance and Commitment Therapy (Sloshower et al., 2020), the Psychological Flexibility Model (Watts & Luoma, 2020), Restorative Retelling (González et al., 2022), and mindfulness (Payne et al., 2021). Spiritually oriented approaches have also been applied, such as Jungian depth psychology (Hill, 2019) and transpersonal psychology, which have striven to integrate Western psychology with Eastern spirituality, as well as shamanic-inspired rituals employing music and animistic symbolism (Grob & Bravo, 2019; Winkelman, 2021).What kinds of effects, then, can well-curated PE's have on people's lives, according to the present literature? In the following section, a number of particularly relevant effects are highlighted.

Long-term effects

Long-term effects, including psychological benefits, have been associated with psychedelic experiences in research trials, most of which use psilocybin as the active substance (Aday et al., 2020, p.; Agin-Liebes et al., 2020; Gandy, 2019; Knudsen, 2023). Outcomes for healthy people specifically outlined include well-being, life satisfaction, life meaning, and mindfulness, as well as traits such as openness and nature relatedness - measures connected to prosocial behaviors and healthy psychological functioning (Gandy, 2019). Benefits of psychedelics are being investigated for their association with both pharmacological, neurological and psychological mechanisms (van Elk & Yaden, 2022), of which a number of psychological mechanisms are interesting to highlight for the purpose of this study. These include the altered and affective states such as the mystical-type experiences, ego-dissolution, awe and enhanced emotional perception previously described as occasioned during a psilocybin experience (van Elk & Yaden, 2022). Further, they include cognitive changes such as increased psychological and cognitive flexibility, as well as alterations in beliefs including supernatural attributions, metaphysical beliefs, meaning and increased suggestibility

(van Elk & Yaden, 2022). Finally, they include increased social feelings of connectedness, communitas and empathy, and changes in habits and behaviors (van Elk & Yaden, 2022). How all these factors relate to each other in long-term change processes, however, is not clear (van Elk & Yaden, 2022). Investigating the multidimensional nature of these processes and understanding their relations, as stated earlier, is arguably what qualitative studies can contribute with. One explanation of how psychedelic experiences result in long-term change is given by the concept of 'integration'. The following section develops an understanding of this concept which might be important for understanding psychedelic change processes.

Integration

The concept of *psychedelic integration,* or simply *integration,* is widely recognized as a crucial component of psychedelic therapy and research (Aixalà & Bouso, 2022; Bathje et al., 2022; Gorman et al., 2021; Read, 2021; Richards, 2017). It most often describes a process of therapeutic work following a psychedelic experience deemed essential for minimizing risks and maximizing benefits, particularly when working with clinical populations (Garcia-Romeu & Richards, 2018; Gorman et al., 2021; Pilecki et al., 2021). It has become an integral part of how research in psychedelic therapy is structured, which in its most basic form consists of the phases "Preparation – Support – Integration" – referred to as the 'PSI'-model (Bogenschutz & Forcehimes, 2017; Carhart-Harris, Bolstridge, et al., 2018). Here, the integration phase most often refers to drug-free follow-up sessions with a therapist where participants are aided in unpacking and further exploring the contents of their experience and their implications, while they are also monitored and supported in the case of potential harm (Garcia-Romeu & Richards, 2018; Gorman et al., 2021; Pilecki et al., 2021). An illustration of integration used is the PE as a compass that can merely set a direction, while integration is the vehicle that drives change with the deepening of insights, their generalization into life, and ongoing effort to maintain newfound perspectives (Payne et al., 2021).

However, while the term is often used synonymously with professional practices (Gorman et al., 2021; Pilecki et al., 2021; Sloshower et al., 2020) integration can also take place outside of therapy where it is described as equally important (Richards, 2016). In this more general sense, integration has been defined in many different ways, leading recent studies to attempt to expand on the concept by interviewing psychedelic integration practitioners on their understandings (Earleywine et al.,

2022), developing scales for measuring integration (Frymann et al., 2022) and models for practicing integration (Sloshower et al., 2020). However, in our view, no one description of integration included all aspects described in the literature. This motivated us to analyze several different understandings of the concept with the goal of breaking them down, encapsulating their individual and shared features, and coalescing these into a broad model describing integration and important aspects of integration processes. What, then, does 'integration' entail in our understanding? The following section expands upon the understanding of the concept of integration which we started developing in our internship report (Nielsen & Riis-Vestergaard, 2022).

Our model of integration

Analyzing different descriptions of integration throughout the literature reveals it as a multi-dimensional phenomenon. In this section we will describe six dimensions of integration processes which we understand as central to the concept. These dimensions form the basis of how we have operationalized the concept in our interview protocol. It is worth mentioning that since developing our protocol in the spring of 2022, two new comprehensive conceptual descriptions of the term have been published, which have therefore not informed this model (i.e. Aixalà & Bouso, 2022; Bathje et al., 2022). In Chapter 4, we will discuss how these understandings can complement our model and analysis.

Dimension 1: Change

First of all, integration is defined as a process creating positive *change* in a person's everyday life from a psychedelic experience. As we see it, change is described as taking place in three different modalities: the cognitive, emotional, and behavioral. In the *cognitive modality*, integration is described as having gained meaning from or made sense of a psychedelic experience, making the experience and resulting insights easier to articulate and apply (Earleywine et al., 2022), and having implemented these into one's beliefs and views of the world and self (Earleywine et al., 2022; Frymann et al., 2022). In the *emotional modality*, this change involves a sense of wholeness and completion as opposed to feeling disjointed (Earleywine et al., 2022), living a life with less distress (Gorman et al., 2021), and feeling settled in relation to the experience, more in harmony, and improved in well-being and life in general (Frymann et al., 2022). In the *behavioral modality,* integration entails the psychedelic experience having had an effect on habits and behaviors, such

as the realigning of these with core beliefs that may have shifted as a result of the experience (Earleywine et al., 2022; Frymann et al., 2022; Gorman et al., 2021). This change, it should be noted, is not only in relation to how one was before the PE, but also in relation to any state after during or after the experience, such as in the case of emotional challenges arising from the experience that need to be resolved (Frymann et al., 2022).

Dimension 2: Action

The second dimension is a person's *actions* - active engagement with a psychedelic experience. Integrating a PE, crucially, is not described as happening by itself as a mere result of the psychedelic experience. Rather, it requires active engagement, which can both be more or less active and involve a range of different activities. As we see it, these activities can be divided into two different parts of the integration process: *processing* and *implementing.*

Processing involves integrating the psychedelic experience and its contents into one's psyche, engaging with them through one's thoughts, feelings and sensations in order to making sense of them and come to insights (Earleywine et al., 2022; Frymann et al., 2022; Richards, 2017). Further, it means understanding the implications of the experience and insights for one's life and incorporating them into one's perspectives on oneself and the world (Amada et al., 2020; Frymann et al., 2022; House, 2007; Richards, 2016; Watts & Luoma, 2020). Sloshower et al. (2020) uses a metaphor of integration as drawing a map which can be used to guide one's personal development – often central to the first part of the process following the PE. Processing can involve different reflexive and contemplative activities such as reflection, journalling, painting, meditation, sharing with others, seeking out therapy or nature activities (Frymann et al., 2022; Gorman et al., 2021; Loizaga-Velder & Verres, 2014). Processing the experience can also involve reliving it, as well as identifying problematic old ways of thinking, feeling, and behaving which stand in the way of change (Meckel, 2019). These are highlighted as particularly typical and relevant immediately after the experience (Gorman et al., 2021; Loizaga-Velder & Verres, 2014; Richards, 2016), and maybe even during the session, as some experiential content such as trauma can already be difficult to make sense of the following day (Meckel, 2019).

Implementing refers to the process of integrating the insights gained from the experience and the processing of it into one's everyday life and ongoing choices, often described as the later parts of

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integration processes (Earleywine et al., 2022; Frymann et al., 2022; Loizaga-Velder & Verres, 2014; Sloshower et al., 2020). It is often described in metaphors of connection between the experience and everyday life - insights being brought into or merged with daily life (Earleywine et al., 2022; Gorman et al., 2021) or life being aligned or united with the psychedelic experience and its contents in an embodied way (Frymann et al., 2022). What this entails depends on the individual process including specific insights and themes resulting from the processing of the experience. It often includes changing one's attitudes, habits, behaviors, living environments, or working on one's relationship with other people, society or nature (Earleywine et al., 2022; Frymann et al., 2022; Sloshower et al., 2020). Specifically, it can be expressing forgiveness and gratitude, spending time in nature, exercising, seeking out therapy, and engaging in spiritual practices such as meditation, yoga, exercise, and prayer (Frymann et al., 2022; Pilecki et al., 2021).

It may cause confusion that processing and implementing can include similar behaviors. For example, meditation is often highlighted as an activity which can both serve to process the experience, as well as implement insights of being more present in everyday life (Frymann et al., 2022; Payne et al., 2021). What distinguishes these, in our understanding, therefore, is the goal of the behavior. It should also be noted that these two parts of integration processes do not necessarily occur at different timepoints but could also hypothetically run parallel.

Dimension 3: Support

The third dimension of integration is *support*, which can take on numerous forms. Supportive guides or therapists who are familiar with psychedelics are often described as an important part of good integration practices (Frymann et al., 2022; Mithoefer et al., 2016; Phelps, 2017; Richards, 2016), but support can also take place through group sharing with peers (Frymann et al., 2022; Phelps, 2017) or be found in local spiritual and religious communities, or treatment communities relating to one's specific issues such as Alcoholics Anonymous (Richards, 2016). Support can help with any of the integrative activities described above, but activities such as focusing inward and grounding oneself, explicating meaningful experiences and insights, managing physiological stress, and developing coping skills are specifically highlighted (Gorman et al., 2021). People who lack support from their immediate environment, it is pointed out, might gain it from expanding their communities in their integration process (Gorman et al., 2021). Support is also particularly important in the case of challenges where understanding and compassion is described as essential,

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and in the case of proper support, challenges can even lead to better outcomes (Gorman et al., 2021).

Dimension 4: Challenges

Integration processes can also be understood by their *challenges* – both the emotional, cognitive, and social difficulties people might face - which can either hinder the integration process or serve to benefit it. Challenges in the acute psychedelic experience, interestingly, are often described as resulting in long-term benefits, since the process of overcoming challenge and working with these experiences can be rewarding (Gorman et al., 2021). Often, it is the resolving of unresolved emotional conflict or trauma that leads to the greatest benefits (Scheidegger, 2021). In psychodynamic understandings, it is the very integration of repressed trauma into the psyche which is seen as the key component of therapeutic change, which psychedelics can aid (Merkur, 2007; Winkelman, 2007). Aside from the challenges related to the experience itself, challenges can also come in the form of unsupportive environments or stigma surrounding psychedelics in the general population (Gorman et al., 2021), as well as cultural values and norms, such as the consumerist and performance-oriented values of Western culture, which can conflict with the psychedelic experience and its insights (Frymann et al., 2022).

Dimension 5: Understandings

The fifth dimension of integration is the *understandings* influencing integration processes, including personal, political, philosophical, and spiritual beliefs. These both include understandings that hinder and facilitate the integration process. In relation to *hindering understandings*, internalized stigma influencing perceptions of treatment with psychedelics negatively is cited as a challenge to integration by practitioners (Earleywine et al., 2022). Conversely, unrealistically positive expectations of treatment based on misconceptions regarding psychedelics as a panacea is described as leading to disappointment and lesser treatment effect (Earleywine et al., 2022; Gorman et al., 2021). From the perspective of practitioners, a challenge to integration is also a reluctance to engage in integration, which can include avoidance of topics and unwillingness or inability to exert necessary behaviors (Earleywine et al., 2022). These, it could be hypothesized, might stem from certain beliefs about treatment. Lack of necessary integrative action can also stem from 'spiritual bypass' – engaging in spiritual practices as a way of avoiding rather than working on difficult

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emotional states (Gorman et al., 2021). Certain ways of understanding one's problems, such as psychological or spiritual interpretations of problems that are social or contextual in their nature, may also hinder integration processes (Richards, 2017). In the realm of *facilitating understandings*, a mystical or religious psychedelic experience may provide more of a motivation for change than others depending on their existing religious beliefs (Richards, 2017). People with prior belief systems that align with spiritual psychedelic experiences may trust themselves more easily to these experiences and the insights they result in and implement them in ongoing practices, such as prayer (Richards, 2017). At a more basic level, something also cited as beneficial to integration is reading books and watching videos or other activities that can help create new understandings of PE's and resulting insights (Frymann et al., 2022).

Dimension 6: Temporality

Last, but not least, the *temporal dimension* of integration is a rather defining one. While some refer to integration as the therapeutic phase following a psychedelic experience grounded in the preparation and psychedelic session (Gorman et al., 2021), and others define integration as encompassing both the preparation and session itself (Sloshower et al., 2020), integration, first and foremost, is always defined as a *process* (e.g. Earleywine et al., 2022; Frymann et al., 2022; Gorman et al., 2021; House, 2007; Richards, 2016; Sloshower et al., 2020). The temporal dimension of integration, in our model, encompasses both the approach to the PE, the acute PE itself, the short-term post-PE, and the long-term post-PE.

Firstly, the *approach* to a PE is understood as important. Integration has been described as beginning already with the preparation prior to the dosing session, where the foundations are laid for reactions, decisions, insights and behaviors during and following the dosing session (Earleywine et al., 2022). Preparation can be understood somewhat similarly to 'set', encompassing expectations, sense of readiness for the experience, preparation, and intentions (Loizaga-Velder & Verres, 2014). Setting intentions for the experience is described as a particularly important part of the integration process as the commitment to these intentions can underscore the ongoing integration process following the psychedelic experience (Frymann et al., 2022). Gaining insights through psychotherapeutic work already in preparation is said to be able to reinforce content emerging during the dosing session which, in turn, can amplify and lengthen the effects of the experience (Sloshower et al., 2020).

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Secondly, the *acute experience* itself is sometimes also understood as a part of the integration process. According to Winkelmann (2007), the 'integration of the psyche' is the very function of psychedelics, causing him to rename them 'psychointegrators'. This idea combines the neurological understanding that psychedelics increase the connectivity between areas of the brain, thus 'integrating' it, and the psychodynamic understanding that they support the intrinsic 'integrative striving' of the mind towards coherence in one's views of self and the world, as well as the integration of unconscious material into consciousness, such as repressed trauma, explaining the emergence of insight during PEs (Merkur, 2007; Winkelman, 2007). Thus, meaning making processes following a PE can be seen as mere continuations of the psychic integration that began during the acute experience, which might have resulted in either insights or unfinished processes requiring more active integration after the effects wear off, as the psychointegrator no longer functions to help, or sometimes even during the acute experience as insights may already fade immediately after (Merkur, 2007; Winkelman, 2007).

Third, the *short-term* period following a psychedelic experience is said to be an important phase in the integration process where integrative action should be taken, both in order to feel settled after the experience and to achieve lasting benefits (Garcia-Romeu & Richards, 2018; Gorman et al., 2021; Meckel, 2019; Scheidegger, 2021). The first period can both involve emotional challenge as well as be characterized by a pleasant sense of 'afterglow' from the experience (Gorman et al., 2021). Integrating the experience initially entails working to feel settled and unharmed in relation to the experience, which may have involved a dramatically altered state of consciousness and powerful psychic contents (Frymann et al., 2022). Here, issues including both avoidance of difficult psychic material or a sense of grandiosity and egocentrism can occur if the contents of the PE have been experienced very positively or negatively, and neither case would be feeling truly settled, which involves both lack of psychological tension as well as humility (Frymann et al., 2022). The initial period is also described by some as a window of opportunity of heightened neuroplasticity where a person's self-concept is more malleable, providing a moment to expand on or cement changes (Amada et al., 2020). In this period, lasting weeks to months, new psychological material can also continue to emerge in what has been referred to as the 'unfolding process' (Gorman et al., 2021). These descriptions mirror the idea that integration is a continuation of the PE which extends the process of psychic integration and results in generation of insights.

Finally, the *long-term* can be said to be a key aspect of definitions of integration since true integration is often expressed as lasting positive change (Earleywine et al., 2022; Frymann et al., 2022; Gorman et al., 2021). The integration process is described as ongoing and potentially never ending (Earleywine et al., 2022; Sloshower et al., 2020), implying that processing and implementing does not necessarily happen once and for all. Rather, as some practitioners have described it, actions accumulate and compound over time, and new insights can emerge and alter the process at any point in time following the psychedelic session (Earleywine et al., 2022).

Thus, the temporal dimension of integration can be said to run through all the other dimensions, meaning that at any given time point in the integration process, the other dimensions of integration can potentially play a role.

Background summary

In this chapter, we have answered our first subquestion by describing the powerful experiences psilocybin is able to produce, as well as examining the importance of extrapharmacological factors in shaping the PE and producing long-term effects. We have also done this by describing our model of integration, which entails a number of dimensions potentially important to investigate in order to understand how people are affected by psychedelic experiences. This background knowledge guides the design of our interview study whose methodology will be described in the following chapter.

Chapter 2: Methodology

In this chapter, we describe how we have methodologically approached the investigation of the effects of PE's and the role of integration in healthy research participants. First, we make explicit our metatheoretical assumptions which form the basis of our methodology, as well as their implication for the use of our specific methods. Secondly, we describe our participants and how they were sampled. Third, we describe our semi-structured interview approach, the design of the interview protocol based on the background theory described above, and our approach to transcription. Finally, we describe our approach to thematic analysis which was used to analyze our transcripts.

Metatheoretical assumptions

Braun and Clarke (2022b) argue that every study is embedded in theoretical assumptions that shape and form their approach – including methodological decisions and ontological and epistemological understandings. However, these assumptions often go unacknowledged and are seen as only requiring explication when research goes against mainstream norms, such as in the case of constructionist research and qualitative approaches (Braun & Clarke, 2022b) – like ours. In this section we will elaborate on our epistemological and ontological position based on the book *Anvendt videnskabsteori* by Sonne-Ragans (2019). This, according to her, creates transparency and carries implications for the methodological approach to the investigated phenomena as well as how the validity of our findings should be judged (Sonne-Ragans, 2019), as will be described.

Epistemology refers to what constitutes legitimate knowledge and how it is produced (Sonne-Ragans, 2019). Sonne-Ragans (2019) presents three main epistemological stances: *Objectivism, Subjectivism and Constructivism* (Sonne-Ragans, 2019). In this study we take a stance somewhere in between subjectivism and constructivism. Our subjectivist position entails the understanding that 'objective' knowledge cannot be obtained since knowledge is only ever attainable through subjective experience consisting of understandings and interpretations, which can be represented through language. This position, in our view, leads naturally to the choice of the interview, since it is an effective method of detailed inquiry into subjective experience. At the same time, we are aware that the knowledge produced by our interviews will be influenced by such things as the questions we ask, how we ask them, and how we respond to those answers, which points to a constructivist

position in which knowledge is understood as intersubjectively mediated. That is, the interview situation itself will influence how the participants *construct* their subjective experience (Sonne-Ragans, 2019). The constructionist knowledge ideal also connects the subjectivist and objectivist positions in that it sees science as uncovering patterns of reality but must focus on making visible the subjective perspective and the way the researcher affects the object of investigation (Sonne-Ragans, 2019).

In relation to our thematic analysis this also means that we do not view our data as direct representations of an objective reality but rather as accounts mediated through our participants' reality, which is influenced by their cultural context. The goal of our TA is then to provide a coherent interpretation of our data, whilst remaining aware of how our participants' accounts are shaped and constrained by contextual influences. This does not mean that we disbelieve our participants' accounts; simply that we maintain an awareness that their accounts are influenced by the questions we ask, how we ask them, and their ability to describe their experience. Similarly, our interpretations are also influenced by our contextual influences and prior understandings. This epistemological position is paired with the understanding that our participants have had a certain experience - that is, there is a "true" version of their experience. However, what we learn from the interviews is a (re-)constructed version of this experience, influenced by contextual factors as mentioned above (Sonne-Ragans, 2019). This leads to what Sonne-Ragans (2019) calls a *moderate constructivist* ontology. Our understanding of the nature of our participants' experiences as subjectively and intersubjectively constructed, means that our analysis must be validated through its grounding in participants' experiences as well as transparency regarding the context of research and our own influence as researchers (Sonne-Ragans, 2019). The following section will contextualize our study by describing our participants and the research trials the present study is based on.

Participants

We interviewed 8 people, 3 men and 5 women. Our participants were healthy volunteers who had participated in a psilocybin research paradigm at Rigshospitalet in Copenhagen between 6 months and 4,5 years prior to the interview (described in other studies by Madsen et al., 2019, 2020, 2021; McCulloch, Grzywacz, et al., 2022; McCulloch, Madsen, et al., 2022). At the time of this original study, they had given consent to being contacted again for the purpose of future research. Based

on this existing information, we recruited participants by telephone and collected their informed consent through a subsequent mailing correspondence. In this study, they are given pseudonyms in order to ensure their anonymity, the selection of which was based on self-reported gender and, in one case, ethnicity, as this played a part in his experience and subsequent process.

Participant sampling

Given the fact that our project essentially arose out of the opportunity to interview participants from prior projects at NRU, the direction of our research project did not inform participant sampling as much as it was determined by it. This sampling method could be seen as a type of convenience sampling – recruiting participants from an available and naturally clustered group of participants (Katz-Buonincontro, 2022). However, seeing that participants had been part of three different research sub-projects with different methods (including different settings and dosages), we used criterion-based sampling within this group, defining a number of criteria by which to select a final sample from this group of 46 prior participants in total (Katz-Buonincontro, 2022). These will briefly be described.

Criterion 1: 'High' dosage of psilocybin (0.3 mg/kg)

Firstly, we were interested in participants who had received 0.3mg/kg synthetic psilocybin, which was defined as a 'high' dose in the original studies (McCulloch, Madsen, et al., 2022). In practice, however, some participants received a bit less than this due to psilocybin being administered in pills of 3 mg each, making it impossible to administer the exact amount intended. Therefore, we set our criterion as at least 0.25 mg/kg, knowing that this would include all participants in the 'high' dose category. This dosage level arguably corresponds well enough to other psilocybin studies to allow for a valid comparison of experiences. According to one systematic review (Bender & Hellerstein, 2022), participants have in general received between 0.07 mg/kg and 0.45 mg/kg, and in the case of similar qualitative studies, high dosages varied from 0.25 mg/kg (Watts et al., 2017) to 0.3 mg/kg (Belser et al., 2017; Noorani et al., 2018; Swift et al., 2017). Doses ranging from 0.2 to 0.3 mg/kg typically produce psychedelic effects, which was what we sought (Kelmendi et al., 2022).

Criterion 2: Minimal time in scanner

Secondly, we chose to exclude participants of one subproject where they had received psilocybin under vastly different experimental conditions than participants in the two other subprojects. Namely, they had spent most of the duration of their sessions within an MR-scanner environment, while participants of the other subprojects spent most of their sessions in an environment designed for the purpose of psilocybin sessions to be comfortable (Dea Siggaard Stenbæk, personal communication, 26/05-2023). This decision was based on our knowledge of the importance of setting (Extrapharmacological factors, Chapter 1), and thus the rationale that a scanner environment might have had a uniquely different influence on their experiences than the environment of the other subprojects and as such made the participants individual experiences less comparable.

Criterion 3: Broad temporal range in follow-ups

Finally, we were interested in conducting long-term follow-ups with as broad a temporal range as possible (i.e. from 6 months to 4,5 years after dosing session). It should be noted that we do not perform an analytical comparison of participants based on the time elapsed since their dosing session. Rather, for the purpose of our analysis, we see the broad timeframe as allowing us to investigate similarities in their overall processes stretching over a long period of time. The consequences of this decision will discussed in the first section of the "Participants"-discussion.

Psilocybin trials at Rigshospitalet

The procedure of the mother study from which our participants were sampled will give a sense of the context in which they had their psilocybin experience. As this information remains unpublished, our source is our supervisor who was a part of conducting the trials (Dea Siggaard Stenbæk, personal communication, 26/05-2023). The trials followed the PSI-model of preparation-session-integration described earlier (Bogenschutz & Forcehimes, 2017; Carhart-Harris, Bolstridge, et al., 2018).

A week before the psilocybin session, the participants received a *preparatory session*. Here, they were asked about their motivations for participating, if they had any prior experiences with altered states of consciousness (psychedelic or otherwise), and what their background was. They were given information about the effects of psychedelics and advice on how to navigate the experience.

Rapport was established between the researchers and the participant regarding the rules of the study and how they felt about physical support (e.g., a comforting hand on the lower leg). They were then taken through a short Guided Music and Imagery (GIM) session to give them an experience with an altered state of consciousness.

On the day of the *psilocybin session*, the researchers went over the rules again, made sure that the participants had a way to get home afterwards, and answered any questions that the participants had. Our participants spent most of the dosing session in a hospital room that had been decorated to look "cozier" than a usual hospital room. As the effects of the psilocybin wore off, the participants were asked to draw a mandala of their experience and informed of possible "afterglow" effects.

The next day, the participants came in for an '*integration'-session* in which they underwent a debriefing. This included addressing what it had been like to return to the world after the psilocybin session and to share the experience with someone else. The participants were asked how their night had been, how they had slept, and how they had felt waking up the next day. Lastly, they were asked how they felt in the present moment, before moving on to talking about the contents of their psilocybin experience and how it could be used in their everyday life. The participants could then ask questions and the integration session was concluded by making plans for self-care.

Semi-structured interviews

> *"Interviews provide a window into the vast array of human experiences that we cannot see or easily measure"* (Gerson & Damaske, 2020, p. 6).

We collected our data through semi-structured interviews based on the guidelines of Kvale and Brinkmann (2009). The semi-structured approach to interviewing follows an interview protocol but allows for the pursuit of interesting topics deemed relevant for the research question when they arise during interviews (Kvale & Brinkmann, 2009). Since our interest in the topic of how participants had been affected by their psilocybin experiences was rather broad, this approach was suitable in our view as it allowed us to acquire detailed accounts without fixing ourselves too prematurely on particularly important aspects of participants' experiences. Our theoretical understandings gave us ideas of which avenues might be interesting to investigate but did not fix our focus in

the same way that they would have in a structured interview or survey design (Kvale & Brinkmann, 2009). Further, it allowed us not only to investigate if the participants had engaged in some form of integration, but also to explore why they had or had not done this. In this way, interviewing is a tool that not only allows for exploration but also provides the foundation for building theory (Gerson & Damaske, 2020), which is partially the purpose of this study. Finally, given the fact that our participants had not received a long-term follow-up on their participation, we also wanted to choose a format which allowed them to feel heard and seen to the greatest extent, acknowledging the privilege we were given with the opportunity to have participants share their stories.

Interview protocol

For our semi-structured interviews, we had designed an interview protocol (Appendix 1) which helped us guide our interviews and made sure that we covered all the dimensions of participants' experiences that we set out to cover. Thus, the protocol was an operationalization of our model of integration with most questions chosen to be able to investigate different aspects of our dimensions, following Kvale and Brinkmann's (2009) guidelines for designing questions as exemplified in Figure 2. Which dimension each question related to is described in the protocol itself (see Appendix 1). It should be noted that while questions related to our different theoretical focal points, most were designed to be phrased as openly as possible, thus not simply testing hypotheses of whether aspects of integration had been part of their processes, but rather allowing for a wider exploration of the area of interest using further questioning (e.g. *"Hvordan reagerede dine omgivelser på din oplevelse?"* rather than *"Fik du støtte fra dine omgivelser?").*

DIMENSION OF INTEGRATION	INTERVIEW QUESTION
Temporality: Approach	"Hvad fik dig til at deltage i forskningsprojektet?"
Temporality: Short term	"Hvordan vil du karakterisere tiden umiddelbart efter din psilocybinoplevelse?"
Action: Processing	"Gjorde du noget for at bearbejde oplevelsen?"
Support	"Hvordan reagerede dine omgivelser på din oplevelse?"

Change	"Forandrede noget sig i dit liv, som følge af oplevelsen?"
Action: Implementing	"Hvis ja: "Skete den forandring af sig selv eller gjorde du noget aktivt for at skabe forandring?"
Challenges	"Oplevede du nogle særlige udfordringer, som følge af oplevelsen?"
Understandings	"Havde du nogle forforståelser eller intentioner du føler påvirkede din efterfølgende proces?"
Any dimension	"Hvad har været vigtigst for dig i forløbet?"

Figure 2: Examples of the operationalization of the research question into interview questions

The process of designing our interview protocol included feedback sessions with our internship counselor and colleagues where we presented our questions and the logic behind them and received notes on restructuring and rephrasing. Later in the process, we pilot tested our interview protocol. First, we tested it on each other to make sure the flow of the questions felt logical and not too repetitive, revising it accordingly. Afterwards we tested the final version of the interview protocol with a friend who had experience with psychedelics. This helped inform whether the questions were understood as we intended. We outline the procedure as described in the protocol in the following section.

Interview procedure

Participants were interviewed over Zoom with interviews lasting 60-90 minutes. Interviews were recorded and stored on encrypted USB-drives to ensure data safety in accordance with GDPR legislation (GDPR, 2016). Inspired by Kvale and Brinkmann (2009), when sending informed consent forms by email we asked participants to remember their experience and reflect on the time afterwards prior to the interview, hoping that this would aid them in focusing on the topic and answering our questions. The interview opened with a briefing for the purpose of defining the interview situation for the participant and making them comfortable (Kvale & Brinkmann, 2009).

This included a description of the purpose of the interview – our interest in their PE's effect on their life, with a focus on how they might have processed it and related to it over time, and how it had been expressed in their everyday life – thus framing the interview with our focus on certain dimensions of integration. We reminded them of their informed consent and the timeframe of the interview, that the interview would be recorded and processed with anonymity, and that primarily one of the authors would ask questions while the other would take notes.

The interview was structured chronologically, starting with questions addressing circumstances prior to participation (*Hvad fik dig til at deltage i forskningsprojektet?*), the acute PE (*Når du tænker tilbage på din oplevelse i dag, hvad står så særligt ud for dig?*), the period immediately following (*Hvordan vil du karakterisere tiden umiddelbart efter din psilocybinoplevelse?*), and alle the time elapsed up until the day of the interview, including questions related to effects of the PE (e.g. *Forandrede noget sig i dit liv, som følge af oplevelsen?)* and each dimension of integration (e.g. *Skete den forandring af sig selv eller gjorde du noget aktivt for at skabe forandring?*). Each of these sections of the interview was opened with explaining what we now wanted to focus in on in order to aid participants in their reflection and clarify answers (Kvale & Brinkmann, 2009). Open questions were often followed up with further questions related to what role a specific experience had played for them, and exactly how and when they had experienced something, related to the experiential modalities of Dimension 1 and the temporality of Dimension 6. Throughout the interview, we also tried to confirm our understanding of their accounts by repeating it back to them in a clarifying manner (Kvale & Brinkmann, 2009). The last section included questions inviting them to reflect on their process rather than simply describe it (e.g. *Har din måde at forholde dig til oplevelsen ændret sig over tid?*). We intentionally waited till later in the interview with questions requiring a higher level of reflection since more precise answers can be given to these questions when participants are well into telling their story (Kvale & Brinkmann, 2009). The interview ended with a debriefing (Kvale & Brinkmann, 2009), asking how participants had experienced the interview, what they would investigate if they were us (inspired by the "participatory research" element in another qualitative psychedelic study; Noorani et al., 2018), and whether they had anything to add. These questions primarily served to end the interview on a good note and give us inspiration for probes in future interviews, but quite often, these questions also resulted in interesting accounts which contributed to our analysis. Finally, participants were thanked for their participation.

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Transcription

Based on the recordings, we transcribed our interviews by dividing them between us, meaning that only one person transcribed each interview. Interviews were transcribed word for word, including pauses, laughs, and stutters (see transcriptions in Appendix 2). To allow for a better reading experience, however, we have allowed ourselves to make "cosmetic" changes to some of the quotes when using them in our analysis, such as deleting repeated words. This has been done with the utmost respect for the participants, so as not to change the meaning of the quote (Braun & Clarke, 2022b). The transcription process, it should be acknowledged, includes a level of interpretation – from oral to written account (Kvale & Brinkmann, 2009). This, however, we understand as a fundamental condition of interpretation rather than an issue to be managed. Throughout the subsequent analytical process, we discussed and confirmed our understanding of specific quotes with each other hoping to get as close to the intended meaning of the participants as possible, as validating our transcriptions with our participants was beyond the scope of our project (Kvale & Brinkmann, 2009).

Reflexive thematic analysis (RTA)

We base our investigation on Reflexive Thematic Analysis (RTA) developed by Braun and Clarke (2022b). Thematic Analysis (TA) is a method widely used in qualitative research, but they note that it only recently has been expanded on and demarcated (Braun & Clarke, 2019). Since their first publication on TA (Braun & Clarke, 2006) Braun and Clarke have written extensively on the method (Braun et al., 2019; Braun & Clarke, 2016, 2019, 2021, 2022a), but in 2022 they published their book *Thematic Analysis: A Practical Guide* (Braun & Clarke, 2022b)*,* the most comprehensive and developed guide to RTA yet*,* which we have used as our primary methodological guideline. In the following sections, we describe what RTA is and how we have used it.

Braun and Clarke (2022b) understand qualitative research processes as organic, fluid and contextualized, acknowledging that these rarely, if ever, follow a straight path. Rather, the methodological steps that make up the framework of TA serve as general principles or ideals that guide more than describe exactly how the actual research unfolds. To Braun and Clarke (2022b), this is not a weakness, but rather the nature of qualitative research. In this spirit, we will describe our methodology not as a recipe, but rather as the process that it has been, with transparency regarding how

our project has developed over time, in order to enable a discussion of what implications these processual intricacies might have for our results (Braun & Clarke, 2022b).

What is TA?

In its essence, TA is a method that can be used to approach the interpretation of qualitative data in a systematic way to create *themes*, which describe important patterns of meaning across data sets (Braun & Clarke, 2022b) – in our case, our interview transcripts. According to Braun and Clarke (2022b), TA differs from other methods of analysis that try to describe patterns across qualitative data in that it is not attached to a particular metatheoretical framework. They argue that there is no ideal framework or method for conducting qualitative research, but they hold that choosing one's approach to TA requires reflection on how TA is done and why (Braun & Clarke, 2022b). This entails ensuring a match between the framework and method researchers decide to use, and making this choice of framework explicit, acknowledging that it is, in fact, a decision (Braun & Clarke, 2006). In the following section, we describe how RTA fits with our metatheoretical framework as presented above.

The 'reflexive' part of RTA

'Reflexivity' involves a self-awareness about one's methodology and refers to the practice of active critical reflection about both one's role as a researcher as well as the research practice and process (Braun & Clarke, 2022b; Finlay, 2002). A core assumption in reflexive TA is the notion that researcher subjectivity is the main tool for reflexivity – a resource rather than a problem to be managed or removed. This goes well with our constructivist understanding of knowledge as something co-constructed between researcher and subject, rather than as objective (Braun & Clarke, 2022b). By explicitly reflecting on these processes and practices, they argue, the process of knowledge production becomes transparent, thus giving the necessary requirements for judging its validity. Good quality research does not only involve embracing subjectivity, Braun and Clarke (2022b) write, it involves interrogating it. This means us as researchers critically evaluating how we influence the knowledge produced. It also means that any reflexive analysis will always be partial; other researchers with different backgrounds may find other patterns in the same dataset (Braun & Clarke, 2022b). In a positivist understanding of knowledge this would arguably be seen as problematic as the replicability of findings is taken as a measure of their quality (Sonne-Ragans, 2019).

Quality in reflexive TA, Braun and Clarke (2019) write, is not 'correct', 'accurate' or 'reliable' coding in consensus between coders, but the researcher's reflective and thoughtful engagement with their data and the analytical process. They describe this process as 'developing', 'construct-ing' or 'generating', underlining the creative centrality of the process (Braun & Clarke, 2019, p. 594). This arguably fits with our moderate constructionist approach to research as revolving around creating meaning, not uncovering truths (Sonne-Ragans, 2019).

A deductive and experiential approach to RTA

We start our analysis from a *deductive* standpoint, making explicit the theoretical concepts with which we approach the interpretation of our data – our theoretical dimensions of integration de-scribed in Chapter 1. When doing so, Braun and Clarke (2022) underline the fact that this approach is not the same as quantitative hypothesis testing. Rather it is a recognition of our inevitable pre-conceptions and an attempt to use these actively, all the while keeping an open and questioning position, keeping interpretations tentative, and investigating in which ways the data do not fit the developing interpretations (Braun & Clarke, 2022b, p. 210). We have also primarily taken an *ex-periential* rather than a *critical* approach to RTA (Braun & Clarke, 2022b). An experiential orien-tation, according to Braun and Clarke (2022b), grounds the analysis more in the meanings and life-worlds of participants, while a critical orientation grounds the analysis more in the researchers' analytical frameworks (Braun & Clarke, 2022b, p. 204). Our experiential approach involved ap-plying a *hermeneutics of empathy* as the primary way of interpreting our interviews which essen-tially means trusting the accounts of our participants. This approach differs from a *hermeneutics of suspicion* (applied in critical TA) where participants' descriptions are interpreted as claims or representations of certain truths, using researchers' theoretical resources (Braun & Clarke, 2022b). They write that often, interpretations start as experiential and later in projects become critical as the meaning of quotes are deepened with theoretical analysis, which to some degree was also the case in our study. However, we found that a trusting, experiential approach to analysis best fit the purpose of our study, although given our ontological stance, we recognize that participants con-struct their worlds in particular ways based on various cultural understandings and discourses, the full interpretation of which was beyond the scope of the present study.

Our analytical process

The analytical process of RTA involves six phases: 1) *familiarization, 2) coding, 3) creating initial themes, 4) developing and reviewing themes, 5) refining, defining and naming themes* and *6) writing up* (Braun & Clarke, 2022b, pp. 35–36).

We started out with familiarization, the goal of which is developing intimate knowledge of the dataset and critically engaging with it. For us, this process involved both researchers reading and re-reading all our interview transcripts while listening to the recordings and taking notes about analytical ideas and insights. We both discussed these notes continuously throughout the process and one final time before beginning coding. Based on the patterns we agreed on and our dimensions of integration we then prepared initial folders within the Lumivero NVivo R1 software into which we could categorize our codes. Here we made our first departure from the order of phases since these folders can also be seen as initial themes (Braun & Clarke, 2022b).

After creating these initial themes into which we could organize our codes, we began the coding process. This process involved systematically working through our transcripts and defining meaning within small segments of the data (Braun & Clarke, 2022b). We coded four interviews each. This was a pragmatic decision to spread out the workload, but is in line with the method as quantitative measures such as intercoder-reliability are not viewed as necessarily enhancing the quality of the analysis. Rather, in RTA, with multiple coders the purpose is to gain richer and more complex insights and nuance, not coming to an agreement on every code (Braun & Clarke, 2022b).

Coding can be done both at a *semantic l*evel, close to the participants' own descriptions, or a *latent* level, reading more between the lines. In the RTA approach these are not dichotomies, but rather opposite ends on a spectrum (Braun & Clarke, 2022b). In this study we have placed ourselves somewhere in the middle of this spectrum, perhaps leaning a bit more towards the latent side. As explained, we took an empathetic hermeneutic approach, trusting participants' accounts, but we were also guided by our understandings. For example, if a participant said that they had not needed to process their experience, but then proceeded to describe activities which could be understood as processing, we would code this as a processing of their experience. However, we would also code their initial statement that they had not felt a great need for processing. This does not mean that we would twist their words to fit our analytical narrative - just that we had a different

understanding of the word "process" than they did. A similar argument applies to deductive and inductive coding, where deductive coding is driven by theory and inductive coding is driven purely by the data (Braun & Clarke, 2022b). We had an understanding of integration that drove our coding process, but we strove to remain open to data that did not fit this understanding. According to Braun and Clarke (2022b) and in line with our metatheoretical understandings, purely inductive coding is thought of as impossible as the researcher always brings their perspectives and theories with them.

The phases of reviewing and developing our themes became intertwined with our coding process, as we continuously reevaluated our themes. We occasionally had codes which we felt did not quite fit with a certain theme but almost did. In such cases we would rename the theme, broadening its scope, or split it into two new themes and subthemes. When we had each coded our four interviews, we merged our NVivo projects and defined the final themes. The final naming of themes came during the *writing up* process (Braun & Clarke, 2022b), the product of which is the final analysis of the following chapter. At this point, we had a set of clearly defined themes which we weaved together into an analytical narrative, in the process readjusting and finalizing the titles for them.

Structure of the analysis

In presenting our analysis, we have chosen to not separate a more descriptive analysis of the data, as would usually come in the shape of 'findings', from an interpretive analysis of how various descriptions can show the role of integration, which would perhaps normally come in the 'discussion' (Braun & Clarke, 2022b). The concept of findings is generally avoided in RTA and other approaches within the qualitative paradigm since it creates an impression that knowledge was 'out there' already, and not constructed through the analytical process (Braun & Clarke, 2022b). Braun and Clarke (2022b) argue that in TA, writing the analysis is not the same as reporting on findings from an analysis performed somewhere else known from quantitative studies. Rather, the writing is a *part* of the analytical process, as the act of describing the themes and telling a story about them involves analytical work. Further, Braun and Clarke (2022b) argue that it is better to combine description and interpretation in RTA as this keeps the interpretations close to the data. In doing this, data extracts will be used both illustratively to describe a tendency in the data, and analytically to form the basis of a more investigative interpretation related to our research question (Braun & Clarke, 2022b). It should also be noted that highlighted quotes are simply the examples we think

best represent themes – we do not include an example from every participant who described a theme. Throughout the analysis we also explicate, when deemed necessary for the correct under-standing, what interview questions prompted certain answers in an attempt to ensure transparency and acknowledge the co-constructive nature of these accounts.

Chapter 3: Analysis

In this chapter, we present our analysis of participants' account of how they have been affected by their PE's. We refer to it as an analytical *story*, following Braun and Clarke (2022b), because the themes are to be viewed as an overarching story about their process and what influenced it, starting before their PE and continuing up until our interview, which together serve to answer our research question. The themes are organized somewhat chronologically in order to follow the structure of how we conducted our interview, as well as to stay in the spirit of storytelling. Throughout the story, each theme will be analyzed in relation to our understanding of integration, thus answering whether aspects of integration processes play a role. Theme 2, 3, and 4 in particular serve to answer subquestion 2 of how participants were affected, while the other themes each describe how dimensions of integration played a role - subquestion 3.

Theme 1: A Motivated Approach

Our analytical story starts where participants' own did: prior to their PE. This theme mainly relates to answers given to the question of what made them participate. Almost all participants had approached their experience in a motivated way, studying psychedelics in science and media or had prior experience with psychedelics, thus knowing of these substances as tools for therapy and self-development. Further, many had personal motivations related to self-development and therapy.

Personal research as motivation for participation

Prior to their participation, participants had generally taken great interest in academic psychedelic research or portrayals of psychedelics in popular media. Anna, a psychologist, knew of the research field through friends who had worked within the field, and thought of it through the lens of her own professional knowledge, regarding it as important due to its potential for therapeutic treatment.

> Anna: "Altså [til] dels synes jeg, det var et vigtigt, sådan, forskningsfelt i det hele taget. Sådan, de havde mere blik på det her med hvad det kan gøre ved psykiske lidelser, og det synes jeg var sindssygt spændende. Jeg er selv psykolog, og jeg synes

det er relevant i forhold til […] kvalitativt hvordan folk har det, og tolker i deres eget sind. Altså det er sådan en ret, altså, sådan en meget anden måde at gå ind i de ting."

Not only did she have an understanding of what therapeutic mechanisms might be promising in psychedelic therapy, she also described having read about how public discourse might have exaggerated psychedelics as overly dangerous. Manu also described taking great interest in psychedelic science as a result of watching the documentary 'Fantastic Fungi' on Netflix and subsequently starting to do 'desk research', reading scientific articles and books, and getting more eager for knowledge:

Manu: "Og jo mere jeg gravede, jo mere jeg kiggede på forskningspapirer og bøger, jo mere interessant blev det for mig."

Similarly, Liv described coming to participate as a result of discovering psychedelic science through her interest in mycology, which became a bit of a 'black hole' for her. She described having followed research on psychedelics as alternatives to pharmaceutical medicine and the work of a prominent Danish psychedelic researcher, and been subscribed to the newsletter of the Danish Psychedelic Society through which she came to learn of the opportunity for participation at Rigshospitalet. Alex also described having read both research and books on psychedelics, including the popular book "How to Change your Mind" by Michael Pollan, having gained this interest through his interest in meditation, which he stated he had been practicing for around 4 years. Interestingly, he expressed that he was concerned that he had been biased too much by his research, which arguably relates to the point that certain expectations may influence psychedelic experiences, such as unrealistic expectations regarding benefits, which he perhaps was aware of:

Alex: "[…] jeg [var] også meget omkring det og inde og læse omkring det her. Men jeg håber ikke det har påvirket mig for meget. Det var det, jeg var bange for. Jeg ville også gerne gå ind til det med så åbent sind før det, ikke?"

This subtheme generally shows how participants had already engaged with understandings of psychedelics in scientific and media discourse, which both motivated them to participate, but seemingly also provided them a frame for understanding what psychedelics are, and how one "should" engage with them, as will be illustrated by the subtheme regarding their self-developmental and therapeutic motivations.

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Prior experience with psychedelics as motivation for participation

Prior experience made some participants both personally and altruistically motivated to participate, as well as made them feel well prepared. Lis learned about psilocybin specifically in the context of the studies at Rigshospitalet through a podcast, which she describes as fascinating. This caused her to seek out psychedelic therapy twice on her own terms first, after which she got the opportunity to participate. She describes having had good experiences with her two psychedelic therapy sessions, which made her approach her experience with a positive and prepared mindset, described as important for the integration process:

> Ida: "Det betød jo at jeg var, altså jo, positivt indstillet, fordi jeg havde haft nogle gode oplevelser, men at jeg jo også godt var klar over hvor voldsomt det er at opleve det kontroltab."

Both Eva and Kim described how their prior positive experiences made them want to contribute to research, as they, based on these experiences, believed that psychedelic treatment might be helpful to other people in therapeutic ways. This is illustrated by Kim, who experienced being opened and helped to put difficult feelings into words which made him believe that others might benefit from it:

> Kim: "Fordi jeg kunne jo selv mærke, at det var som om at det åbnede op, på en eller anden måde, og det bliver… det bliver ligesom lidt nemmere at begynde at sætte ord på nogle svære følelser og svære tanker. Så det synes jeg da var, altså, det... Det vil jeg da gerne bidrage til, hvis det kunne, hvad hedder det… ende med at være til gavn for nogen."

Thus, prior experience seemed to play a role in both their motivation and how well prepared they felt. Based on these descriptions, as well as those in the prior theme, it can be said that participants were generally rather well prepared for their experience - an important part of the integration process in our model. They were well versed in the therapeutic potential of psychedelics based on

their own desk research and went into the experience with the idea that they might be able to benefit from it.

Self-development and therapy as motivation for participation

In general participants' motivations for participation were related to self-development and therapeutic interests. When asked what in particular motivated her participation, Anna underlined her interest in what she might be able to get out of her experience alongside her wish to contribute to research, which she described as a 'win-win'. She also described that she had been interested in psychedelics for a long time, but that the safe research setting was an opportunity to finally 'get started', indicating an interest in making psychedelics a part of her life in general. Regarding her personal motivation, she saw it as an opportunity for exploring her thoughts in a different way than she was used to.

> Anna: "Og den der, sådan, mulighed for at dykke ind i ens egne tankerækker på en anden måde, det synes jeg var mega spændende."

For Manu, his personal motivation was related to his intuition that he might have unresolved trauma, and the belief that psychedelics might be able to give him insight into himself.

> Manu: "Intuitivt har jeg altid haft på fornemmelsen, at jeg er mere, hvad skal man sige, bekymret og urolig, og nogle gange også kan have noget uro i kroppen i form af traumarelaterede forhold. […] der var et eller andet i mig der, sådan, cirkulerede og sagde: 'Prøv at høre her. Det her det er noget, jeg gerne vil, og der er helt klart noget at hente der i form af visdom og indsigt.'"

His therapeutic interest was, as with Anna, coupled with the perception that the research setting was a safe context in which to try psychedelics, underlining the fact that he would not have taken psychedelics outside of a clinical context. However, he was very eager to try psychedelics, first researching opportunities abroad and then taking very proactive steps to becoming a participant, which underlines his motivation. In relation to her personal motivation, Liv related her interest in participation to her interest in meditation and pushing boundaries, as she compared her psilocybin experience with having participated in 10-day silent Vipassana meditation retreats twice before.

> Liv: "Jeg er også grænsesøgende, og så tænker jeg: 'Det skal jeg lige prøve'. Det er første gang jeg gjorde det. Den anden gang gjorde jeg det, fordi den første oplevelse havde været så god."

Alex also wanted to participate to challenge himself – 'to push himself beyond his limit' – also highlighting the research context as a safe opportunity to try psychedelics, alongside with his wish to contribute to research. Finally, he related his interest in meditation and psilocybin to his interest in 'quieting his internal dialogue' – a perspective which implies an ongoing attempt to improve himself therapeutically through meditation.

> Alex: "Altså, man skulle tro man er neurotisk eller har et eller andet, fordi... […] Der er hele tiden en eller anden... dialog du har med en eller anden fiktiv person, som ikke er der inde i dit hoved. Det er lidt sådan nogle ting jeg prøver at, hvad skal man sige, få væk."

Finally, Ida's interest in participation was explicitly therapeutic, as she found herself in a difficult marriage and wishing to be able to get in touch with difficult emotions.

> Ida: "Jamen altså min helt klare, sådan, udtalte intention, det var sådan… at [pause] mærke de her svære følelser i forhold til mit ægteskab, som jeg ikke synes, jeg gav mig selv lov til at mærke."

Based on these accounts, it can be said that participants had some personal intention entering the experience, which according to our theory on integration can reinforce the content emerging during the session as well as underscore the ongoing process afterwards, which subsequent themes will show was arguably the case for some participants. Not all expressed a concrete intention or therapeutic theme to be worked with. Others expressed more of a general interest in self-exploration and testing boundaries seemingly more related to the experience itself, rather than a potential subsequent process.

No knowledge, experience or personal motivation

The approach of one participant, Sally, can be understood as the exception proving the rule, as she described having no prior knowledge of or experience with psychedelics, and no intention of using her experience in a personal way. Rather, her participation, she described, was a coincidence of

her hearing about the study on Facebook, and thinking that she would like to contribute to brain research, which she was interested in.

> Sally: "Men, men på det tidspunkt og, og min bevæggrund for at deltage var jo ikke at jeg skulle have noget af det. […] Jeg skulle bare hjælpe videnskaben med det projekt, så jeg skulle ikke… […] Jeg havde ikke engang tænkt tanken, at jeg kunne få noget ud af det."

Through the lens of integration, this could be seen as a rather unprepared approach, making up a worse foundation for integration. Later themes will show how this approach influenced how she engaged with her experience - or rather, did not - and what she got out of it.

Theme 2: An Insightful Experience

Participants generally described having gained 'insights' as a central part of the experience. These often came in the shape of new or deeper understandings of the nature and value of certain aspects of self, life, or the world. Since this study mainly focuses on how the process of the PE has impacted participants' lives, this section will not go into detail regarding all the phenomenological themes of participants' acute experiences. Rather, it highlights what seems important for how they were affected by their experiences afterwards. Insight is often the first thing they highlighted when asked what stood out to them from the experience, as Anna exemplifies:

> Anna: "I høj grad, sådan, oplevelsen af det der med at overgive sig. Det er noget, jeg har brugt efterfølgende. Og […] jeg havde nogle […] indsigter, jeg har haft brugt efterfølgende."

These insights related to different, and often multiple themes for each participant. Anna describes her experience as primarily consisting of a vortex of visions, overwhelming and frightening to her. She describes having gained insights from three aspects of the experience: the experience of chaos, realizing she had to surrender, experiencing people as having different colors, making her more accepting of people's differences, and seeing a pomegranate which to her symbolized that she had to start trusting her intuition more. Similarly, Manu describes his experience as having multiple layers, firstly a mystical, then a personally meaningful experience of visions that led to insights:

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Manu: "Der er flere lag i det, men først og fremmest selve den mystiske og den kosmiske oplevelse. Det er et univers for sig selv. Dernæst så kom der en hel masse visuelle billeder, og i den forbindelse fik jeg en indsigt og en forståelse af, at der er noget, en del af mig, som jeg har undertrykt i rigtig, rigtig mange år."

He described how he had had an intense experience of connectedness to nature, roots, animals, people, and the universe. Afterwards, his body went into convulsions, which subsequently made him realize that he had trauma in his system which he had to work with. During his convulsions, a Persian song with a poem by Rumi, which he was already interested in, started playing, making him realize how he had suppressed his Iranian background all the years he had lived in Denmark. Now, however, he saw it as a strength, rather than a weakness. Alex, too, described the experience as very insightful, having had an experience of what he describes as ego-death and rebirth:

Alex: "Den var meget indsigtsfuld altså, men på godt og ondt ikke? Altså det var ligesom mit ego, det forsvandt, eller døde, ikke? Og... I don't know, og blev født på ny, kan man vel nærmest sige."

He described the entire experience as a rollercoaster ride guided by the music, and the peak of the experience as like being split into atoms. To him, it was like being stripped of his mask and having everything come pouring out – tears and feelings of deep love for his wife and children. He also described it as an experience of perspective, of seeing himself as a child again, and experiencing themes of life and death. Through these experiences, central insights related to the importance of being more accepting:

Alex: "Altså det var først at være et bedre menneske. Altså ikke blive sur over småting. [...] Altså netop med, det var sådan meget med, over for mit eget barn, altså ikke bliv sur på banale ting. [...] Bare altså [...] acceptere tingene mere, fremfor for hele tiden at prøve at ændre tingene, hvis det giver mening? Det var sådan... det, jeg synes var gennemgående."

Ida, at the time of the experience, was going through a process of figuring out whether to divorce her husband. She had struggled with her conflicting emotions and had a hard time giving herself space to get in touch with her own emotions, often being preoccupied with how a potential divorce would affect her husband and children. During her PE, she experienced a great loss of control

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where she was able to let go of all her defenses and feel everything very strongly. She had an experience of being filled with both a sense of beauty and sorrow thinking about the marriage she had had with her husband and how they were losing it. She was also given a new understanding of her anxiety as defenses and not something actually dangerous, interestingly making her feel her anxiety more, but being less distressed by it subsequently:

> Ida: "Så på en måde har jeg måske mærket mere angst. Jeg har i hvert fald mærket den tydeligere, men den har ikke haft så meget magt. […] Ja, i stedet for at tolke den som noget, der reelt er farligt."

At this point, it is worth noting that several of these insightful experiences are described as involving significant challenges. These, however, are highlighted as important parts of participants' experiences, lining up with the understanding that challenges often play an important part in integration processes leading to positive change.

For Liv, the PE felt very 'honest', like getting to some place she usually does not come, someplace very central and beautiful, and feeling very honored of being allowed to be there. It was an experience of being together with herself in a similar way as she is with others, and it left her with a deeper recognition of how she can cope with loneliness by being in nature:

> Liv: "At jeg jo godt ved, at hvis jeg går en tur i skoven, føler jeg mig tusinde gange mindre ensom, end hvis jeg sidder alene på mit værelse. Det er ligesom den, sådan, erkendelse som følger med mig".

Kim had an experience of being completely split apart, which allowed him to look at the pieces of his life from the outside, realize what parts had been troubling him, what burdens he had been carrying. He felt like he was able to take two steps back and analyze his mood, thoughts and feelings, and model them as he wanted to. He was able to throw out those negative parts and put himself back together again in a better way – for example by forgiving himself for misunderstandings between teammates. For Eva, the interpersonal relation between her and the staff particularly played an important role in her experience. It was an experience permeated by warmth, care, and love which made her feel recharged.

Eva: "Det var jo sådan en meget varme og omsorg […] Det var dejligt at have den opmærksom på at de holder mig i hånd, og... Det var ligesom… Det var sådan en… Det lyder, sådan, en meget kliché og sagt der var så meget kærlighed inde i det, men det var virkelig meget kærlighed. […] Jeg fik så meget kærlighed, at jeg kunne ligesom… ligesom man kan recharge sin batteri."

She also describes the experience as very blissful and likens it to being in her grandchildren's world of bees, unicorns, and rainbows. Finally, Sally describes how she had a hard time letting go initially, since she hates losing control. However, she says, eventually she had to, resulting in all of a sudden being very intensely 'in it', absorbed by the music, which she thought was the most beautiful she had ever heard, laughing and crying, all the while being embarrassed and afraid she was ruining the scan. Miraculously, she describes, her experience also involved a complete lack of hot flashes, which her menopause otherwise was plagued by at the time. Coming out of the scanner, she describes having a moment of insight related to self-worth and self-care, realizing she had sometimes been hard on herself and understanding that it made sense her partner wanted to be with her.

This theme arguably indicates the first steps of the process of integration. For almost every participant, profound insights related to their lives emerged already during the PE. The fact that participants highlight deep meaning emerging from the experience relating to their life, and not simply an interesting altered perceptual experience, speaks to the hypothesis that it is this emergent meaning which comes to play a role in the later parts of their processes. For some, this meaning both came in the form of new understandings or beliefs related to participants' lives, as well as in the shape of deeply felt emotions including love, connection, and surrendering, which seemed more related to the experience itself, although still profoundly insightful.

Support during session was important for insights

Interestingly, several participants described how not only the psilocybin effects, but also the support during the session had been important for their insights, which related directly to their relationship with the therapists. Kim described having had an adverse view of therapy and psychologists due to a history of friends who had had bad experiences with being prescribed antidepressant medication for, in his words, simply being depressed about the way the world and universe is. He

emphasized that this new understanding was not only a result of the psilocybin effects, but combination of the caring staff and the openness psilocybin gave him:

> Kim: "Altså, psilocybinen var jo en del af det. Og jeg tror måske at det var kombinationen af den åbenhed psilocybinen gav samtidig med den åbenhed, medmenneskelighed, jeg ligesom bliver mødt med i samtalerne. […]"

Similarly, when asked what stands out to her the most from her experience, Eva describes how the love and care she felt from her therapists left a lasting impression on her:

> Eva: "Jeg synes det var simpelthen så dejligt at være sammen med hun der musikterapeuten, og så var der en læge studenter […] Det var ligesom de passede på mig så godt. Det var simpelthen... Det var jo sådan en meget varme og omsorg"

Thus, the extrapharmacological factor of support seemed to have a direct influence on what some participants got out of the experience.

Theme 3: An Initial Period of Effects

When asked how they would characterize the period following the experience almost all participants spontaneously described an initial period of still being affected by the experience after the psychedelic effects themselves had subsided. The length of this period varied, however, described as lasting from 24 hours, in the case of Sally, to several weeks or months, as was the case for most other participants – a difference possibly speaking to the less impactful experience of Sally. Participants described either feeling a great surplus of energy or feeling more vulnerable while remaining connected to the insights gained during the experience. For all participants, however, this period was transient, fading with time.

Feeling improved

Kim, Manu, and Eva all described immediate positive emotional benefits afterwards, feeling happier, lighter and a greater surplus of energy. Kim described how he felt calm and at ease with himself, and that his burdens, which he had thrown away during his experience simply did not take up any space for him anymore. In relation to this, some also described increased surplus for other

people and everyday challenges, that made it easier for them not to get caught up in unwanted emotions:

> Kim: "Bare have et utrolig stort overskud til og tage livet og hverdagen og uforudsete udfordringer i stiv arm […]. Og sige: 'Ja, det er okay. Det er lidt ærgerligt lige nu, men vi skal nok klare det vi skal nok komme videre', eller, sådan lige være, være lidt ekstra opmærksom på og tænke hvis andre gik og var sure, så have en større forstå-else for at der er jo nok et eller andet de kommer og tumler med, i stedet for bare at blive sur retur"

Manu described feeling a lightness like never before, and Eva said she simply felt happy, like on a high. Both Manu and Eva describe how other people also noticed a change in them. Eva was asked whether she was in love, and Manu enjoyed the praise he received:

> Manu: De sagde jamen der… Der er noget forandret ved dig, du virker mere rolig. […] Det er sgu da dejligt, og det var jo også det jeg mærkede, ikke?"

These descriptions arguably support the notion of an 'afterglow' period in which people can still feel the positive effects of the PE.

Difficult emotions

During this initial period difficult emotions were also described. Both Anna, Alex and Ida de-scribed feeling more vulnerable as illustrated by Ida describing getting sad from hearing something on the news:

> Ida: "Jamen det føles bare som om alle indtryk, de virker meget, sådan, voldsomme, og andres følelser […] følte jeg, jeg blev påvirket af meget voldsomt. […] Som om man bare sådan… Ja, var åben overfor alle indtryk. […] Altså jeg havde sådan lidt en fornemmelse af at skulle beskytte mig selv lidt, for ikke at blive sådan helt over-vældet af alle de indtryk, der var omkring mig"

For her, this vulnerability was seemingly a good thing, since it was an expression of being more in touch with her emotions, which she had realized during her experience were not as dangerous

as they seemed. On the contrary, Liv felt like she was in a difficult process of digesting the experience, as she did not fully understand what it meant:

> Liv: Det var som at [have] spist et kæmpe, kæmpe kæmpestort måltid, der skulle fordøjes og det bare tog fucking lang tid […] Og det var som om, at det var lige. Det var en lidt for tung opgave for mig."

She describes having believed that the experience meant her well, and therefore not understanding why her feelings were so difficult. This made her question whether it had even been real, and what it wanted with her. Thus, challenges also characterized the process following some participants' PE. These, however, often became meaningful to participants either being related to insights from the experience, as in the case of Ida, or in spurring on the processing of the experience in order to make sense of it, as in the case of Liv.

A challenging return to everyday life

Regardless of what the initial effects were, almost all participants had a tendency to describe these as fleeting with the return to everyday life. Ida described it as the (emotional) 'filter' coming back on, and Alex described it as falling back into old habits. Several participants described this return to normal as a challenge in different ways. For Alex, it was somewhat disappointing, as he felt he might have been able to get more out of the experience, wishing he could have recorded his internal experience:

> Alex: "Jeg var også sådan lidt den der: 'Ej, jeg kunne godt... eller skulle jeg have gået dybere i det?' du ved. 'Gav jeg mig nok hen til oplevelsen?'"

Somewhat similarly, Eva described it as difficult coming down from her 'high' after this first period. She and others felt that the return to everyday life forced them to shut down their experience:

> Eva: "Det er dagen efter den oplevelse. Jeg gik på arbejde […] Jeg var nødt til at ligesom parkere den oplevelse lidt i siden og ligesom være skarp og fokus nogle andre ting på mit arbejde. Hvis jeg kan laver det om, så ville jeg tage måske 2 dage fri efter sådan en oplevelse, at jeg kan virkelig mærke det […] Jeg var nødt til at skubbe den healing lidt [til] siden"

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Here, Eva illustrates how returning to work made it difficult to engage with the experience and even describes how she felt she had to 'push aside some healing'. This suggests that she feels she could have gained more from her PE, had she had time to process it. This was mirrored by other participants who described how family life, work, or studies took up too much time and space for them to be able to stay connected to what they had experienced. Several participants explicitly state that the stress of everyday life prevented them from processing the experience:

> Liv: "Jeg kan bare huske jeg tænkte efterfølgende, at det gik lidt stærkt, og at jeg ikke havde helt rum nok til at… tid nok til at få sat mig ned og… [Tænker] Og få kigget nogle af de andre ting, som måske ikke var dem der stod allermest tydeligt… At få kigget noget af det igennem."

The fact that participants so consequently described everyday life as a factor inhibiting their processing of the experience and staying connected to their experience arguably reveals an important factor which our model of integration does not fully capture – the context of people's everyday lives. It seems as if they were not given proper opportunity to remain connected to and process their experiences due to the return to everyday life. Despite this, as the following theme will show, participants report the experience having had some sort of lasting impact.

Theme 4: Lasting Change

The following theme shows how participants generally described having been affected in some way or another in the long-term, particularly in a way related to the insights they gained during their experience, which stuck with them after the initial effects wore off, as exemplified by Anna, who describes this in the metaphor of colors.

> Anna: "Altså, det startede med ligesom at være meget klare farver. Altså sådan, 'Vi skal denne her vej, og det her symbol. Og vi skal bare meditere hver dag'. Og nu er det blevet mere sådan en... […] Det er blevet mere fra neon til vandfarver, tror jeg."

Similarly, when asked whether something has stuck with him which still means something today, Kim responds that although the effects fade, he has learned something:

Kim: "Jeg ved ikke om der er sådan noget permanent ud over det der med... Altså man lærer jo hele tiden noget ikke og bliver klogere og, jeg synes også at jeg er blevet lidt klogere på mig selv i den oplevelse her. Så der er helt klart noget, jeg har taget med. Men i forhold til lige præcis den effekt som psilocybin havde. Altså det aftager jo også."

These descriptions indicate that while the initial effects fade, insights remain to influence participants lives, as will be described below.

Change in way of feeling

Several participants described how the experience had had an enduring impact on the way they generally feel in life. After the PE Manu describes feeling lighter and calmer than ever before, which he attributes to the convulsions:

Manu: "Så hvis jeg skal selv konkludere noget her, så er det som om, hvor jeg førhen kom fra et traumerelateret sted, som var urolig og nervøs, og der var nogle triggere, der altid var på arbejde, uden at jeg selv har været bevidst over det, eller uden at jeg selv har kunnet styre det der, er jeg lidt mere jordnær nu, og faktisk væsentligt roligere i min væren, og dermed også i min adfærd. Så ja, det… Det er nok det, der har det... Det er nok det, der har været skelsættende i forbindelse med min psilocybinoplevelse."

Ida was able to get in touch with her own body and emotions more, and not only focus on how her children and husband felt, which made it easier to accept that divorce was right for her:

Ida: "Altså den kærlighed og ømhed med overfor min ekskæreste, eller min eksmand, den har jeg stadig med mig, som jeg kunne mærke der. Jeg har selvfølgelig også kunne mærke den tidligere, men som blev forstærket der, og det er blevet nemmere […] Jeg føler, det gør, at det bliver nemmere for mig at acceptere, at jeg stadig har en masse kærlige følelser for ham, uden at det betyder, at vi skal være sammen."

Liv reflects that she feels more confident in being alone, which in turn has made her more tolerant of other people, realizing that they do not have to do everything together when she can simply go into nature alone if she wishes to:

Liv: "Jeg tror det er en følelse af at være mere selvsikker i at være alene. At det gør, at jeg ikke føler, at jeg skal pushe min agenda ned på alle andre. Den kan jeg jo bare klare selv. […] Jeg jo bare tage ud i skoven, hvis det er det, jeg har lyst til. […] Jeg skal også huske, at jeg behøver ikke at være sammen med mennesker hele tiden for at gøre det, jeg gerne vil."

These descriptions show how several participants experienced lasting changes in their way of feeling, often in the shape of more calmness, which seems to benefit them in ways relating to their way of thinking and acting, particularly in relation to other people. This could be understood as a level of integration in the emotional modality, as described earlier, characterizing how they have been affected by their experience in the long term.

Change in way of thinking

Participants also described how their way of thinking had changed, often expressed through a change in their attitudes and beliefs. Anna describes how her insights have made her more accepting of other people living their lives differently than her. Generally making her outlook on right and wrong more flexible:

Anna: "Jeg er måske bare lidt mindre kategorisk […] Jeg har mindre tendens til at sige, at der er noget rigtigt og forkert."

Alex describes that his insights into the value of staying present and accepting still impacts his outlook on life:

Alex: "Det det handler ikke om at arbejde, det handler ikke om altså... De der materielle ting […] Meningen må være at være tilstedeværende og […] At være der for ens nærmeste, ikke? Så man kan sige, det har jeg jo taget med mig fra det."

Both Alex and Liv also described thinking more acceptingly about death and both Manu and Kim describe having become more open to therapy in general:

Kim: "Jeg tror, jeg er blevet mere åben over for det her med terapi. At man ikke nødvendigvis behøver at gå og kæmpe med problemer, der bare bliver

værre og værre, for eksempel i et parforhold, fordi man er... Har en eller anden misforstået stolthed om, at sådan noget skal man klare selv."

For Eva, the experience did not change her life, but left her with a sense of hope - a belief that life is good and that unconditional love exists.

Eva: "Jeg ved jeg ikke hvis den har ændret mit liv, men det har givet mig håb [...] Jeg tog den ind [i] mig, den oplevelse, at det var sådan en ubetinget kærlighed og sådan en varme og... Det giver mig et eller andet måde, også op i livet... At det det er godt, [det der] findes her. [...] Jeg har sådan en oplevelse inde i mig, og det findes. Det er godt."

When answering whether she acted on her experience, Sally says the PE prompted her to go to the doctor and get hormones for her hot flashes, as she too deserved to feel good. The idea of putting herself first, she describes, has influenced her life in general, causing her to change jobs, but whether this can be attributed to her psilocybin experience of simply growing older, she has a hard time deciding:

Sally: "[Jeg] er nok blevet mere opmærksom på, men om det direkte relateret dertil, eller det er min alder [...]. Det har jeg svært ved at sige, men jeg havde da i hvert fald tanken der lige umiddelbart efter, men om det er den, der har bidt sig fast, eller om det bare er et tilfælde, det er enormt svært for mig at føle."

Thus, Sally interestingly reports having made a change in her life as a result of an insight from her PE, even though she initially did not describe it as having affected her, promptly answering 'no' when asked whether she had experienced any changes or taken anything with her from the experience. Together, the accounts in this theme paint a picture of how meaning made from the experience, often in the form of insights, came to affect participants beliefs and ways of thinking in the long term – a key aspect of having integrated an experience, as described.

Change in relationship

Interestingly, Anna described the concrete insights from her experience as not only having affected her, but also having impacted the way they think in her partnership.

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Anna: "At jeg siger meget 'vi' om det, om det er noget, vi har udviklet sammen. På den måde, som vi lever. Der snakker vi bare naturligt om alting og tager sådan nogle beslutninger sammen. Så derfor vil alle forandringer vel være et 'vi' […] Jeg kunne ikke have sådan en her oplevelse uden at snakke med min partner om det."

She struggles to find the right words to describe exactly what these changes have meant for their lives, but describes an increased sense of connectedness with themselves, each other, and other people in general, and trusting their gut-feeling more, as opposed to being driven forward purely by logical reasoning and societal expectations. Interestingly, the way Anna describes having integrated her insights not only into her own life, but into her shared life with her partner points towards a social dimension of change not considered in our model of integration. Alex, too, describes how having made concrete changes in his life following the experience, such as changing jobs, to have more time with his wife and children – are changes felt by his wife and kids as well:

Alex: "Det en gladere en gladere mand, ikke? Og en… Og forhåbentlig også mine børn har en gladere far. Kæreste/ konen […] Hun er blevet mere glad, eller har en mand, der er mere til tilstedeværende, ikke?"

Participants' descriptions of the way they experience a lasting impact from the experience arguably imply varying levels of integration. Integration is expressed cognitively though having gained lasting meaning from the experience implemented in their lives – something described as central to integration. Further, they are often very clear in their articulation of what they have gotten out of their experiences, which can also be seen as an aspect of integration. Further, lasting emotional integration seems to be expressed in several participants who feel improved, sometimes in relation to specific areas of their life, such as in the case of Ida accepting her emotions more. So far, we've reported how the psilocybin experience holds the potential to induce lasting change. However, the following themes will bring nuance to the way changes occurred, as they seemingly did not solely stem from the PE itself.

Theme 5: Change through Action

An active effort to retain and use the insights was often described as required. In general, when asked whether change came by itself or whether participants had to do something for it, they

responded having to make an active effort to create change in their life after their experience. For example, Alex describes how his lasting ability to be more present came from an active effort of meditation:

> Alex: "Ej, jeg vil nok sige jeg skulle gøre det lidt mere aktivt. Jeg tror ikke det er kommet af sig selv."

Similarly, Manu primarily attributes his change to having sought out therapy – something he would not have done, however, had he not had his psilocybin experience.

> Manu: "Mit syn på min familie mit syn på mine rødder. Syn på mig selv. Blev mere rummelig og mere rolig. Og det var faktisk mere eller mindre *efter* psilocybininterventionen, men akkumuleret set… samlet set, havde jeg ikke taget psilocybin, så havde jeg aldrig opsøgt en jungianer der arbejder med drømme og har arbejdet med psykedelika selv i sine unge dage"

These descriptions arguably indicate a level of active implementation of participants insights required for achieving change. This, as the next subtheme shows, often started with initially chosing to work with their experience.

Choosing to work with the experience

Several participants expressed the idea that working with the experience is a choice one can make, emphasizing the aspect of active engagement in taking something from a psychedelic experience. When asked whether it was important for him to process his experience, Alex responded that he could have chosen not to engage with his experience, and simply leave it as a memory, but he chose to engage with it due to his rational and curious nature:

> Alex: "Jeg følte også godt at jeg bare kunne lægge det her i skuffe hvis jeg havde lyst til det. […] Men man prøver at forstå det også fordi jeg er rationel, jeg prøver sådan… Altså, 'Hvad fanden var lige det, hvordan kunne det lade sig gøre?'"

As a result, Alex describes the period after the experience as therapeutic. This, he ascribes to himself actively questioning how he would be able to learn from his experience:

Alex: "Jamen jeg ville karakterisere den som. […] Lidt terapeutisk også, for, jeg prøvede at tage nogle af de ting med mig, sådan lidt... 'Hvad kunne det her fortælle mig?' ikke?"

In the same way, Manu describes having gained new perspectives, but being aware that he needed help processing and implementing them in his life:

Manu: "Så jeg havde jo lige pludselig en bevidsthed om... Jamen jeg har set nogle perspektiver, og jeg kan også se det fra en anden vinkel, men jeg kan godt mærke, det kan jeg ikke selv gøre, så jeg har brug for sparringhjælpen til at integrere det, og så fandt jeg jo ligesom ud af, okay, der ligger fandme mange traumer her mand. Nu piller vi dem lige én efter én fra hinanden, og lige pludselig så kan jeg jo netop holde den der ro. Den der livsglæde. Og ikke være så snappy, som jeg plejer at være […]"

Liv described how reconnecting with the present *state of being* of the PE became helpful in processing the experience in itself – something she had to actively remind herself of:

Liv: "Så gjorde jeg ligesom mit bedste for at komme ud. Jeg har brugt helt vildt meget tid i sauna. Badet meget, og været meget nede og vinterbade. Og sørget for, at jeg ligesom havde sådan en daglig form for påmindelse om det."

It is evident among our participants that people who chose to remain engaged with the experience remained more in touch with it than the few who did not. Thus, choosing to take action was not only relevant in the short-term, but remained relevant for staying attuned to insights, as Anna describes in relation to her insight regarding trusting her intuition, when asked whether change came by itself:

Anna: "Jeg tror mest jeg får lyst til at svare, at når man så får de bobler af eller sådan tanker af, at det kunne være tingene gav mening eller det kunne være […] at man var det rigtige sted i processen, og man bare skulle følge med, så er det jo […] mit valg om jeg tør gå med det, eller ikke tør at gå med det"

This quote underlines the ongoing act of choosing to work with the insights from the experience. These descriptions generally show how a level of active engagement with the processing of their

experience was important to them, both in making sense of their experience and taking something from it.

Using insights as tools

Several participants described the insights the experience had given them as *tools* they could use in their everyday life. The use of these tools, however, seemed to be an ongoing effort of reminding themselves, which faded as the experience slipped farther and farther away, as Kim illustrates:

> Kim: "Altså, der er lige i tiden efter den [the PE] virkede det meget naturligt. Men jeg skal selv minde mig om […] det der værktøj med, ligesom at kunne og kunne analysere mig selv lidt og kigge på hvad, hvad vil jeg gerne have med videre herfra? Altså det, det er noget jeg skal minde mig selv om"

For Kim, it was easy to stay in touch with the experience at first, but later on, it required a more active engagement. For Anna, it was the experience of surrendering described in relation to the overwhelming effects of psilocybin which became a tool. Having had the bodily experience of surrendering, she describes using this when getting pregnant after her PE:

> Anna: "Det der med sådan at overgive sig til at læne sig ind i angsten brugte jeg jo ret konkret sådan kort efter, fordi jeg blev gravid ret kort efter og brugte det i sådan en fødsels kontekst. Som var sådan meget […] det samme, altså den der oplevelse af at stå i noget, hvor der ikke er nogen vej tilbage og man skal gøre noget som bliver vanvittigt. Altså du ved, du står et sted hvor man tænker sådan, nu kan jeg ikke mere og jeg skal mere, jeg kan. […] Jeg skal igennem det og det er noget, der overstrækker ens evner"

She describes having had an amazingly easy birth which she ascribes to having had experience of surrendering to her PE. Interestingly, two other female participants, Sally and Ida also compared this feeling of surrendering with childbirth. Ida also describes how she has been able to use the experience of losing control to allow her to feel *her* feelings, as opposed to her husband and children's feelings, in relation to her thoughts about divorce. At the same time, even though she had the experience of letting go of control, is not unambiguously easy to do so in her everyday life:

Ida: "Sådan det der oplevelsen af at give fuldstændig slip på kontrollen og så… op-
leve at det ikke var farligt, at jeg stadig var mig selv, og havde mig selv med. […]
Det er noget, jeg godt gad at gøre endnu mere. Som jeg jo også har, ja, som sagt
arbejdet med min psykolog efterfølgende. "

Somewhat similarly, Eva describes *using* the insights from her experience with her in her everyday
way of thinking:

Eva: "Jeg nævnte det før, at det er ligesom det der ubetingede. Jeg kommer hele tiden
tilbage i den kærlighed. Men den ligger som den positive og ubetingede kærlighed,
og sådan at vi er connected. Den bruger jeg hver dag, også i mit liv. Ja, og min tan-
kegange."

These descriptions highlight an important facet of the change participants have experienced: the
fact that they did not simply *experience* change, but rather had to *use* what they had gained from
them in their everyday lives. This can be said to show how types of implementation of insight
among participants - a central part of the active dimension of integration - required ongoing active
effort.

Changing circumstances to stay attuned to insights

Some participants described how they actively molded their life circumstances in ways that al-
lowed them to stay attuned to their insights, for example by living in a place that made it easier for
them to get out into nature, as in the case of Liv:

Liv: "Jeg har faktisk valgt specifikt at bo på et virkelig småt sted, fordi at så *skal* jeg
ud. At det er sådan, det er en meget aktiv tanke i mig, at jeg skal gøre det virkelig
nemt for mig selv at tilfredsstille det behov ved at gøre det svært for mig selv at være
i det modsatte."

Alex too describes having molded his circumstances by changing jobs, which allowed him to stay
more present. For him, this choice of action was spurred on by his experience of returning to old
habits after the experience, which in the light of his new insights compelled him to make drastic
change:

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Alex: "Det er helt sikkert netop det der med at, nå men jeg fik lidt en indsigt i at det var dét, jeg skulle - være mere tilstedeværende - jeg kunne også mærke, at jeg kom hurtigt tilbage i den gamle... Gamle vaner, og der er skulle noget drastisk... det hedder drastisk ændring til. Jobskifte, ikke?"

Throughout this theme, we have showed how our participants described having to make an active effort, to stay in touch with the insights or working with their experience through active choices. Participants often described having to remember to use the experience. Through this, it appears that whether experiences led to change was a direct result of participants taking action in order to create change. However, sometimes change was not even initiated by the experience, and then driven by action – it was already ongoing, as the final subtheme in this section will describe.

Experience supports ongoing processes

Several participants described how they were already in the process of actively creating changes in their lives. Therefore, they described their PE's as not causing changes in itself, but rather supporting them in these processes. This would sometimes make it hard for participants to know what exactly caused which change:

Ida: "Ja, jeg startede også til en psykolog nogle måneder efter. […] Det var ikke for at få bearbejdet psilocybinoplevelsen, men det var selvfølgelig en del af det samme […] Og ja… besluttede mig for, at jeg skulle skilles og… kastede mig ud i et nyt liv, så man kan i hvert fald sige at det har understøttet en stor proces i mit liv."

While underlining that she didn't divorce her husband *because* of her PE, she describes the space created by the PE as having supported the process of coming to her final decision. It is, however, difficult for her to put into words exactly *how* the PE supported her, but she reflects that it was most likely due to her emotional changes:

Ida: "[…] det er svært at sige, hvad der er hvad. Men måske har det været med til at give lidt mere ro og… Også gøre det lidt nemmere ved at finde glæde ved bare at være mig selv."

As with Ida, participants commonly described the experience as something that had supported or sometimes accelerated processes in their life. The latter is the case for Alex who reflects that he

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would probably have reached the same point as he has today without the PE, but it might have taken longer:

> Alex: "Jeg tror at jeg ville nok [være] nået dertil hvor jeg også er den dag i dag, Men måske om et års tid, eller sådan noget, hvis man kan sige det på den måde. Det har gjort lige at tingene blev lige sat lidt i perspektiv lidt mere voldsomt."

Manu also describes how the PE complimented his ongoing process of self-development:

> Manu: "Det var […] jo ikke sådan at jeg lige pludselig kom fra gaden og tænkte: 'Jeg skal have en psilocybinoplevelse' og så bum, så fik jeg bare en hel masse indsigter, og så bum, så var jeg bare videre til det næste. Altså jeg har jo ligesom før det altid været drevet af meningen i livet for mig, og hvad handler livet om, og hvordan kan jeg ligesom stå stærkere i mig selv?"

This quote underlines the fact that for some participants, while the PE was still described as impactful, it was not the primary driver of change. Rather, the participants themselves were. The experience happened in the context of participants' lives where it accelerated ongoing processes of self-development, sometimes including clear intentions about gaining something from the PE that could aid them in specific ways. These descriptions arguably underline the active dimension of integration in creating change through choosing to process the experience and implementation of insights, often into ongoing change processes.

Theme 6: Action through Prior Understandings

For many, what they got out of their experience and how they chose to actively work with it was not described as something that just came to them after the PE. Rather, it seemed inextricably linked to how they approached their experiences. Many had intentions of working with the PE based on prior experience working with themselves, which included established practices in their life that became useful for retaining insights from the experience. In general, participants often expressed how having been prepared with prior practices and understandings was important for the way they used their experience. When asked whether he had any prior understandings which influenced his process, Manu explains how he feels that generally being reflected about how he wished to live his life, became a good starting point for his PE, stating that "[…] forarbejdet var

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lavet." That their approach to life in general gave them a good offset from which to explore what they could gain from the PE was expressed by several participants. For example, Anna stated that being a psychologist meant she was used to analyze thoughts and work with symbolism:

> Anna: "Det var jo ikke en fremmed måde for mig, at ting havde værdi. Altså sådan symbolarbejde og tolkning af ting, og sådan noget. Det var jeg måske forberedt på bare at… qua sådan hvem jeg er, og min uddannelse da jeg startede […]"

Ida had practiced yoga before her experience and found this to be a good way of staying in contact with her emotions, which the experience had helped her connect with:

> Ida: "Altså, jeg er ret glad for at lave yoga, og hvordan det sådan kunne hjælpe mig til sådan at være sådan mere fysisk tilstede med mine følelser… gennem yoga. Så det intensiverede jeg efterfølgende."

Not only did she use her yoga practice to stay in touch with the experience, she also intensified her yoga practice as a result of the insights of wanting to stay in touch with her feelings. Likewise, Eva and Alex had ongoing meditation practices in which they incorporated the experience and resulting insights. Addressing his ongoing effort to use the insights of staying more present, Alex explains how his meditation practice plays an important role in not falling back into old thought patterns:

> Alex: "[…] Men jeg kan også mærke, får jeg ikke mediteret et par dage, eller er der nogle ting der så lige har gået én på, eller bekymret én lidt meget, og du så heller ikke lige har fået siddet med det, og bare lige lader det være, altså så kan jeg godt mærke, så er man hurtigt tilbage i måske de der gamle tankemønstre."

Eva states that her psilocybin experience of unconditional love, connection to nature and the universe and the grandness of life made clear beliefs she already held. She explains that she already knew these feelings from meditation, but the experience gave her a strong affirmation of their poignancy:

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Eva: "Jeg tror jeg… Jeg har altid ligesom tænker også sådan. Men selve den ople-velse i hospital og tage det der psilocybin, det er ligesom det var meget tydeligt i mig sådan en, hvordan vi alt connected, og univers og naturen også, og at livet er så stort."

In sum, what allowed participants to use their experiences actively in order to make them bring positive change to their lives often seemed to be prior understandings and ongoing practices into which their experience and resulting insights could be integrated.

Hindering personal beliefs – no action

As opposed to the other participants, Sally described having no knowledge of or prior experience with psychedelics – she only knew what she knew from what she had been told during the preparation and admits during the interview that she did not fully take interest. She was only interested to the extent that she was interested in brain research – not psychedelics per se. Therefore, she did not consider at all whether the experience might be personally relevant for her, as described in the first theme. That she could gain something from the experience had never occurred to her and therefore she saw no reason to work with the experience or use it in her life. When reflecting on it, she describes how her fear of addiction might have made her distance herself from the PE as something personally relevant to her.

Sally: "Jeg har altid sådan haft en meget stor afsky og frygt for at skulle blive af-hængig af noget, som skulle påvirke mig, så jeg tror måske også bare det er derfor, jeg har sagt, 'nå, men det er bare et medicinsk forsøg'".

The account of Sally was quite different from most of our other participants, as most came with preconceived notions about what to do with a PE or with prior practices that helped them stay in touch with the experience. Over the course of the interview Sally starts to wonder why she has not taken more interest in her experience, expressing some regret:

Sally: "Altså på en eller anden måde desværre, fordi havde jeg vidst de her ting bag-efter, så kan det godt være, jeg var gået anderledes til forsøget, måske."

This quote is from the end of our interview where our questions about what she gained from the experience seem to have made her reflect differently on the experience - as something she might have gained something from. Sally also described how she tried to reconnect with the PE by

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listening to the music from the session, but struggled to do so, as she did not have prior experiences with practices that complimented this. Arguably, this theme in general shows how prior understandings influenced how people used their experiences, and thereby what they got out of them. Having prior knowledge, practices or self-development projects gave participants prerequisites for understanding and using the experience in their everyday lives in a lasting way. This theme also illustrates some of the challenges in relation to staying in touch with the experience, as Alex who describes quickly falling back into unwanted patterns of thought, when he neglects his meditation practice.

Theme 7: Processing through Support

A very common theme in our participants' stories was the role of external circumstances in their lives in either supporting them in benefiting from the experience or hindering them in staying attuned to it.

Having someone to talk to helps processing

In general, being able to talk about the experience played a big role in helping participants in numerous ways. When asked how she had come to the insight that her anxiety blocked her from feeling what she truly felt, Ida explained that talking to both friends and a psychologist had helped her realize it:

> Ida: "Jamen det er jeg jo nok kommet frem til ved at snakke med venner og… Ja, altså, også med min psykolog. Ikke så meget i forhold til psilocybin, men at generelt at… Det ved jeg godt, jeg kan have en tendens til at gøre."

Many participants also described an appreciation of the relationship with the researchers and would have liked more follow-up as the follow-up session was greatly valued, and it became particularly important for people who did not have their own social network to share the experience with. This was the case for Sally who had a husband that viewed her participation in the study negatively. For her, the follow-up with the psychologist in the research team was helpful in creating a space to be understood and met without prejudice:

Sally: "Og det var egentlig meget rart at mødes med hende igen, så man ligesom kunne snakke med en, der havde været i det, og som ikke var hverken bange for det eller modstander af det."

The value of follow-up sessions also became evident as several of our participants mentioned that our interview had been useful for them as well. For many participants it became a space to return to their experience and reflect on it:

Alex: "[…] jeg kan også mærke, når jeg snakker om det med jer, det hjælper også lige at få... Hvad skal man sige, tænke tingene igennem igen og hvad det er jeg skal huske, at jeg egentlig fik den oplevelse, Ikke? Så det er egentlig meget rart at snakke om det igen, fordi det er et stykke tid siden nu"

Luckily, most of our participants felt they did have someone to talk to, but it was not always they wanted to share it with everyone. For some, other people's interest could even become overwhelming, as Liv describes when asked about how she was met by other people in relation to her PE:

Liv: "De var pisse nysgerrige. Og det var faktisk lidt irriterende [griner]. Der var så mange, der gerne ville... Eller, ikke mange, men dem jeg havde fortalt det om, de ville jo gerne høre hvordan det så var gået. Jeg kunne bare mærke at det var helt vildt intimt for mig. Det var som om nogle spurgte mig om, om de måtte læse min dagbog. Det var ret ubehageligt [griner] så jeg sagde bare altid, at det havde været meget overvældende. Og svært at forklare."

Because it had been an experience with profound meaning for her life, sharing the details of the experience was very intimate, like sharing the contents of her diary. This did not mean that she did not benefit from sharing it at all, as she also describes calling her significant other right after the PE and having had meaningful conversations with her family about the death of her father helping her in coming to acceptance.

Stigma hinders processing

So far, we've described how a positive social setting can help process the PE, but for a few of the participants a lack of support or even disapproval from their surroundings seemingly stemming from stigma became a hindrance to the processing of their experience. This is particularly evident
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in the case of Sally whose partner strongly disapproved of her participation, according to her due to his prejudice against drugs, causing her to distance herself from her experience:

> Sally: "Jeg var jo i en eller anden form for dilemma, fordi min mand, han var meget stor modstander af det her… forsøg. Så man kan sige… Det var noget jeg ikke snakkede noget særligt om, og dermed så fyldte [det] ikke ret meget, fordi… jeg tillod mig ligesom ikke at snakke…"

She generally describes not feeling like she gained a lot from the experience, but as shown earlier she did not expect to, and she did not have anyone to share the experience with. In hindsight she reflects that she would have liked to share the experience with someone close to her – her partner – but also needed to be able to do so without fear of judgment, which was not possible. This seemingly put a stop to any processing of the PE before it even started. Fearing being met with stigma was common among our participants and usually made people choose not to share their experience:

> Eva: "Den med psykedelika man har så mange idéer om det, hvad det er. Også ligesom jeg… Jeg følte meget, hvis jeg skulle forsvare mig selv eller et eller andet. Ja, jeg tror at jeg tænkede at folk har sådan en idé om, hvad er psykedelika."

Not wanting to be forced to defend their choice to participate in the study was often the driving force behind not sharing the experience. Among our participants it is clear that they needed to be met with openness, support and perhaps a cautious curiosity following their PE. In sum, the social surroundings of our participants had a great influence on how they were able to process their experience or stay attuned to their insights. Being met positively in their experience and having the possibility of sharing without fear of judgment, was very important for their own engagement with the experience and it was often helpful in their own understanding of the PE. This is in line with our dimension of support as something playing an important role in integration.

Theme 8: Integration in Context

The final theme of our analysis describes how integration happens in the context of people's everyday lives – something our model of integration does not focus on to a great extent, making this

theme more of an inductive category. For some participants, everyday life circumstances could both became a hindrance as well as beneficial as will be described by the following subthemes.

Life circumstances as supportive for processing

In the case of some participants, everyday life circumstances that supported rather than hindered the use of their experiences came more coincidentally, particularly in the period following the experience. Liv partially attributed her difficult feelings following the experience to her situation, not feeling like she was doing what she was supposed to and living in a small apartment away from nature while working an office job. However, with the coming of spring and her moving to an allotment closer to nature she described her emotional difficulties being alleviated:

> Liv: "Jeg var ikke tilfreds med de ting, jeg lavede. Og jeg ville noget andet, og jeg var meget indenfor. Da jeg flyttede ud i min kolonihave kan jeg huske, at der var meget, der ændrede sig."

Further, Liv finished her studies, which she described gave her more time to reflect on her experience, which she says she took advantage of. Somewhat similarly Anna described becoming pregnant shortly after her PE, which she describes as having aided her tremendously in gaining from the experience:

> Anna: "Og være gravid og være småbørns mor og ammende og sådan noget ligesom sådan eneste tilstand jeg ellers har mødt, hvor man prioriterer psykisk trivsel. […] Det var et sindssygt godt integrationsforløb af den psykedeliske oplevelse, fordi det [var] en periode, hvor mange mennesker støttede os i, at det vigtigste der var mit job der, det var altså oxytocin, oxytocin, I skal være trygge. I skal være glade I skal skille det dårlige fra, I skal trække vejret, I skal afspænde, I skal mærke efter og du skal græde hvis du har lyst."

In this way, the circumstances of life for some participants made up important backdrops of how or if they were able to process their experiences.

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Everyday life gets in the way of implementing insights

Although circumstances could be beneficial, using insights was still a challenge influenced by everyday life. Illustratively, Anna explained how her ability to stay attuned to the experience fluctuated with the amount of stress put on her by her circumstances, and retaining positive change thus becomes an ongoing process:

> Anna: "Jeg har jo ikke kunne fortsætte det, når jeg er gravid og sådan nogle ting og har ammet og sådan noget. Det er et niveau af vores liv. Men det er også et plan, som man ikke er på hele tiden. Altså man er ikke hele tiden på, at alt betyder noget, og alle hænger sammen, og alle... Det glider sådan i forgrunden og i baggrunden, altså sådan i forhold til børn og aula"

Similarly, for Alex, the stress of everyday life easily made him forget his insights. However, this is where talking about the experience once again became important in his understanding – to help remind:

> Alex: "Man er jo hurtigt tilbage i de daglige rutiner og de daglige ting. Arbejde, børnene, madpakker, alt det der... Bleskift. Så det er netop at ikke glemme de der ting, man lige fik åbnet op for. Så helt sikkert så synes jeg det er en vigtig del med at snakke om det."

Thus, this final theme shows that there were many external factors in the contexts of participants' lives that could either support or hinder their process, such as having to handle everyday tasks such as child-rearing or work, which relates to our dimension of challenges in integration. It was evident that processing and implementing insights could fluctuate depending on external circumstances. In this way, the dimensions of action, support and challenges seemed to play together in participants experiences, determining how they were affected by their PE's over time.

Summary of analysis

Together, our themes describe how different dimensions of integration processes affect each other and how participants' lives have been affected by their PE's, as will be summarized in the following paragraphs (dimensions marked with *italics*), thus answering our research subquestions 2 and 3.

The first theme, *A Motivated Approach*, described how participants were rather motivated and prepared in their approaches to their PE. Many had done personal research on psychedelics, thus knowing of their therapeutic and transformative potentials. Further, some had prior experiences with psychedelics which made them more prepared for their experiences, as well as motivated them to contribute to research having experienced benefits firsthand. Finally, many participants had intentions related to using the experience for self-development and therapy, such as wanting to explore the mind and access emotions. This theme then relates to dimension five, *understandings*, as it involves how participants prior understandings influenced both their PE and their outcome from it, as well as *temporality*, involving integration starting already before the psychedelic session with preparation and setting intentions. These motivated approaches can be said to have informed participants' experiences and subsequent processes in the way that they served to form the basis of what participants' experienced and how they related to their experience afterwards.

The second theme, *An Insightful Experience*, shows how participants experiences generally led to meaningful insights regarding themselves, their lives, and the world – insights which they for the most part carried with them afterwards, indicating the role of these in the positive *change* central to integration. All participants had a good experience, and for many it gave them fresh perspectives on their lives. For some, these experiences related to their intentions, including dealing with trauma and accessing difficult feelings. Several participants' experiences entailed *challenges*, including having to surrender to difficult emotions or feeling like being split to atoms. These experiences, however, were often described as particularly insightful, relating to the idea that challenges can be beneficial in integration processes. For some, *support* and relational context with the researchers were also described as playing a part in what insights they gained from their experiences Thus, this theme demonstrates the role of various dimensions of integration processes in what participants got out of their experiences – insights resulting from both support and challenges leading to change.

The third theme, *An Initial Period of Effects* describes how participants generally experienced a number of transient effects or changes following their experiences. The length of this period varied from 24 hours up to four months, according to participants. During this time, some experienced feeling positive emotions and being better able to deal with the difficulties of everyday life, often as a result of still feeling connected to their experiences and insights. Others experienced difficult emotions including feeling more vulnerable and challenged by comprehending the experience and arising emotions. Both positive and difficult emotions could be related to meaningful insights and help in benefiting from these. However, with the return to everyday life consisting of work and family life these initial effects faded, which for some was challenging as it required e.g. accepting losing the connection to the state of presence gained from experience or coming down from the 'high'. This theme mirrors a number of dimensions of integration processes playing a role, including an inspiring afterglow period (*temporality)*, emotional *challenges* both motivating the processing of the experience, as well as hindering it. Here, the factor of the stressful context of everyday life is also described as coming into play, making it difficult for participants to stay attuned to their experiences.

The fourth theme, *Lasting Change,* describes how while the initial effects faded, participants generally reported having gained lasting *change* as a result of the experience, including feeling lighter, more self-secure, and accepting of their own emotions, becoming less categorical in ways of thinking, more aware of fundamental values such as staying present, having gained new understandings such as openness to therapy, feeling hope, and feeling more deserving in life, as well as positive changes in their relationships. Many of our participants said that the experience itself or the insights gained from it continued to hold meaning in their life, and while some reported that it had little impact on their life none reported that the experience had any negative influence of their life. This theme arguably demonstrates how the meaning gained from their experiences had in many cases been translated into changes in different modalities such as positive feeling related to self or others, or new ways of thinking in the shape of attitude and beliefs. This, in our theoretical understanding, can be understood as participants having integrated their experiences to a certain extent. This is arguably also evident in how articulately many of them are able to describe what they have gotten out of their experience.

The fifth theme, *Change Through Action,* relates to our second dimension of *action,* as it describes how changes often did not come by themselves, but were results of participants acting. This was mirrored in descriptions of choosing to work with their experiences, often by processing them through reflection and therapy. In particular, after the initial period had passed, staying in touch with the experience and the lessons they had learned from it required a more active effort on their part. Participants also described insights gained from their experiences as tools which they had to use actively, and remember to use, or they would not benefit from them. Some described actively changing the circumstances of their lives such as their living space or job to be able to stay attuned to their insights. Interestingly, change processes were often already underway because of previous and ongoing active efforts by participants, in which cases the PE was described not as having led to change, but rather simply supported or accelerated it. This theme shows how the *action* dimension of integration was described as playing a big role in how participants were affected by their experiences, both in terms of choosing to process their experience afterwards – which was not a given – and implementing the insights gained into their lives in beneficial ways, sometimes related to ongoing processes, which also made up their intentions going into their experiences (*temporality*).

The sixth theme, *Action Through Prior Understandings* describes how the participants active approaches to working with the PE were informed by prior *understandings* and practices, which allowed them to use the experience beneficially. These included prior self-developmental projects, working professionally as a psychologist, meditation and yoga, or a general belief that all things are connected. In relation to the *active* dimension of integration, these understandings and practices seemingly made it easier for participants to implement their insights, as they had something congruent to implement them into. In a counter example, one participant who did not have any prior practices or intentions of using the experience, and even a hindering fear of addiction, led her to not engage with her experience afterwards, and thus not gain anything from it, as she herself states – regarding which she expresses regret. Here, arguably, the influential role of certain prior understandings and actions as dimensions of integration processes are evident in how participants are able to benefit, or not benefit, from their experiences.

The seventh theme, *Processing Through Support* describes how participants were helped in processing their experiences and gaining insights as well as stay attuned to these through being able

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to talk to friends and family, the researchers during follow-up sessions and, interestingly, us during our research interviews. Descriptions were also given of how processing, on the contrary, could be hindered by stigma, such as in the case of the partner of one participant disapproving of their participation, leading her to 'shut down' her experience, and others choosing not to share much about the experience out of fear of facing stigma. This theme arguably demonstrates the importance *support* played in what participants were able to get out of their experiences, and how lack of support or other social struggles made up hindering *challenges* to their integration.

Finally, the eighth theme, *Integration in Context,* describes how the contexts of participants everyday lives played a role in how they were able to process and implement their experiences. Coincidental life circumstances such as gaining more time in everyday life or starting a pregnancy became good contexts for processing experiences, while the ability to stay attuned to insights in the longer run was described as fluctuating with the stresses and demands of everyday life. This theme involves both aspects of *support* and *challenges*, as the context could both be supportive of their process, as well as a hinderance. Importantly, these contextual factors are described as influencing participants ability to act according to their experiences and insights – process or implement them – ultimately underlining the apparent importance of participants' own engagement in gaining lasting benefits from the experience.

Chapter 4: Conclusions and discussion

This chapter begins by concluding on our study in relation to our research question. It then consists of a discussion in three parts: empirical, theoretical, and methodological. In the empirical discussion, we compare our analysis to findings in other qualitative studies and through this discuss the generalizability of our conclusio the theoretical discussion, we consider our understanding of our analysis through the lens of integration and discuss how other theories might deepen this understanding or present alternatives to it with the purpose of theory building. Finally, we discuss the strengths and limitations of our methodology and how they might have affected our results.

With our study, we sought to investigate how and if our six dimensions of integration processes played a role in how participants were affected by their PE's: change, action, support, challenges, understandings, and temporality. Through our analysis, we created eight main themes: 1) A Motivated approach, 2) An Insightful experience, 3) An Initial Period of Effects, 4) Lasting Change, 5) Change through Action, 6) Action through Prior Understandings, 7) Processing through Support, and 8) Integration in Context. All six dimensions of integration processes were found to play a role in how participants were affected by their PE, and often, these dimensions were also described as affecting each other in the accounts of participants. All participants reported some version of *change* related to the meaning gained from their acute PE – a key feature in definitions of integration. This change, however, was often described as a result of *action* - actively choosing to process or work with experiences in order to gain insights, and ongoing effort to remember to implement insights into their lives, using them as tools. This processing of the experience and remembering to use insights could be aided by social *support* or hindered by lack of support or even opposition resulting from stigma. In several cases, insights came from *challenges* during the acute PE or the period afterwards, and challenges could also help spur on change-making action. Further, participants' prior *understandings* often formed the basis of how they actively engaged with, and thus implemented their experience into their lives. Finally, it was evident that the *temporal dimension* played a role in how participants were affected, with both the time before the PE influencing their processes, the time after setting a direction for their change, and how they were affected fluctuating, evolving, and fading in the long term. These findings will now be discussed in relation to other qualitative empirical studies and theories which can help generalize and explain our findings.

Empirical discussion

In this first discussion we compare our analysis with findings from other qualitative empirical studies in order to explore the representational generalizability - how findings are similar between studies (Braun & Clarke, 2022b).

Comparison with other qualitative studies

Today's western science into psychedelics mostly focuses on their therapeutic value and on informing a therapeutic paradigm in which to use them clinically. Our findings came from a non-clinical population of healthy individuals, thus warranting a discussion of what merit our findings may have in informing treatments compared with other studies. This discussion is not strictly structured by our themes, but more generally discusses what other empirical studies can be said to have found in relation to how people are affected by psychedelic experiences, the role of integration, and other factors, comparing these findings from studies of patients with psychiatric diagnosis and other treatment groups with the findings from our study. This discussion, it should be noted, also widens its gaze from psilocybin experiences to experiences with similar psychedelic substances.

Effects of psychedelic experiences

Two meta-analyses synthesizing qualitative studies on various treatment populations have recently been published (Breeksema et al., 2020; Crowe et al., 2023). Crowe et al., (2023) focused exclusively on studies using psilocybin and involved people suffering from cancer, depression, HIV, substance use disorder, trauma, and smoking cessation treatment. Breeksema et al., (2020) included studies on people suffering from anxiety, depression, eating disorder, PTSD and substance use disorder, and included a range of different substances (psilocybin, LSD, MDMA, ibogaine, ayahuasca and ketamine), but argues that the substances produce similar alterations in experience and are therefore comparable.

Crowe et al. (2023) found three common themes in what led to the betterment of the study participants. The first theme was *acceptance* which encompassed new perspectives on existing life circumstances that made it easier to accept them. It also regarded an acceptance of oneself, others, and a motivation to change, along with an acceptance of conflicting emotions, which made it easier

to live with them or make changes (Crowe et al., 2023). Similar statements were made by our participants. A shift in perspectives, acceptance of oneself and others, and a desire or motivation to live by insights gained during the experience was often reported. The second theme they found was *connection*; feeling connected with others and the universe, sometimes reinforcing existing beliefs about connectedness and a shift from separateness to interconnectedness (Crowe et al., 2023). Statements about connectedness, either with oneself, others, or everything were also common among our participants, as well as in the study by Breeksema et al., (2020). For some this was new, but many also reported that they had always thought this connectedness to be right, but that the experience confirmed or reinforced this understanding, often by making it more of a *felt* reality. The third theme was *transformation* which constituted changes in self-perception that made them recognize or reinforce their strengths, beliefs, wants, needs and desires (Crowe et al., 2023). Breeksema et al., (2020) similarly reported positive changes in self-perception, such as increased self-efficacy, less self-criticism, a lowering of psychological defense mechanisms and a greater love for oneself. This gave participants a sense of freedom from the past which allowed them to move to a state of more self-compassion, which in turn allowed them to live more positively and fully (Crowe et al., 2023). As opposed to the clinical population, our participants were not there with a specific intent to move on from a past affected by struggles with a diagnosis, meaning that they have not gone through a similar transformation as the clinical population – with the possible exception of Manu - who became aware of past trauma and started working with this. However, an increased sense of self-compassion alongside a higher recognition for what was right for them was also reported by our participants. Like the clinical populations in Crowe et al., (2023), this also led our participants to live more fully as they desired. This was likewise the case in a qualitative study of debriefing sessions with cancer patients following a psilocybin experience (Malone et al., 2018). Many similar effects, such as a shift in perspective, acceptance of situation and feelings of unity and connectedness were described as valuable processes, that helped the cancer patients to live their life more fully, instead of being held back by anxiety and depression (Malone et al., 2018).

In a study by Watts et al. (2017) investigating patients suffering from treatment resistant depression (TRD), we find a number of similarities between the descriptions of their participants and ours. Participants generally report having received insights and fresh perspectives on their lives and making life changes as a result, such as reconnecting to past activities and discovering new

ones. However, their patients generally described their experienced effects in emotional terms – as feeling better – arguably a result of their change being related to their affective disorder. That insights or new understandings are a big part of the therapeutic process of psychedelics, was also found in the systematic review by Breeksema et al., (2020). In Watts et al. (2017), participants described experiencing a sense of connection to others and the world after their experience, a theme also found in our participants' accounts. Similarly, participants described becoming more spiritual or religious after their experience (Watts et al., 2017). Other qualitative studies have also found participants going from avoidance to acceptance of emotions (Watts et al., 2017), similar to Ida who experienced being able to connect to her feelings she had avoided, which was an explicit intention for her going into her experience. Others have also found participants coming to realizations about childhood trauma (Watts et al., 2017), exemplified in our study by Manu who came to understand himself as having been traumatized as a result of the interpretive process with a therapist subsequently. Love is also described as an important theme affecting people after psychedelic experiences (Watts et al., 2017), which in our study is exemplified by Eva. Reconciliation with death has also been described as an important theme of change, particularly with cancer-patients, attesting to the fact that insights often relate to ongoing processes in people's lives, as our analysis can be said to indicate (Swift et al., 2017). Swift et al. (2017) conclude that themes of death should be investigated in non-oncology participants, since this theme as explicitly discussed in their preparatory sessions. Interestingly, this theme was also present in our study and described as helpful. For one participant (Liv) related to her recent loss of her father, but for another (Alex), it was seemingly unrelated to ongoing processes. It has, however, been pointed out from existential psychological perspectives that, since death-anxiety is a fundamental precondition of existence, this theme is ever relevant (Robert, 2018a, 2018b). This comparison indicates that the insights and changes in our participants were somewhat similar, and it could be hypothesized that these themes are general to psychedelic experiences across treatment populations.

Other qualitative studies describe a period after the experience in which participants feel different, which subsides with time. In the case of patients with TRD, despite old behaviors and depression returning after a few months a sense of hope and insight remained as a result of having experienced the changes elicited by psilocybin, which they describe as a lasting change (Watts et al., 2017). Like our participants, this points to felt emotional changes subsiding after the experience but change enduring in the shape of new understandings which give a better outlook on life.

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The role of integration

No other qualitative studies, aside from one very recent, claim to investigate integration as a broader psychological concept (Lutkajtis & Evans, 2023). Therefore, these comparisons will be based around what our model of integration understands as dimensions of the concept. First, other empirical studies rarely – if at all – report on any active engagement on the part of the participants (Breeksema et al., 2020; Swift et al., 2017; Watts et al., 2017). Rather, long-term change is described as something that happens *as a result of* their psychedelic experience (Breeksema et al., 2020). If it is mentioned that participants themselves made changes (such as reengaging with old hobbies), this is often viewed as a result of changes participants gained from the experience (Breeksema et al., 2020; Watts et al., 2017). That is, instead of actively working to implement changes or retain perspectives, participants are described as receiving something from the experience (such as increased quality of life), which then leads them to (passively) take up old hobbies, for example (Breeksema et al., 2020). Thus, it can be argued that participants themselves are not ascribed a great deal of agency.

Regarding non-pharmacological factors Breeksema et al., (2020) found many of the same things to be important as were expressed by our participants. Factors such as trusting the research personnel, feeling safe, and being influenced by the music played during the session, were found both by us and Breeksema et al., (2020). Likewise preparatory and integration sessions were reported as important by both our participants and their clinical population (Breeksema et al., 2020). Participants have also underlined the importance of the connection with the therapists as a big part therapeutic value of psychedelic treatment, in combination with the openness created by psilocybin, similar to what Manu and Kim described, having become more open to therapy in general as a result (Breeksema et al., 2020). Other participants have described the importance of integration sessions, and in addition the thoroughness of preparation and support, which allowed them to feel safe and engage with the difficult therapeutic processes (Watts et al., 2017). Belser et al., (2017) also found support following the dosing session to be important, particularly in the case of a participant who needed psychotherapy to process childhood trauma. A very similar finding to our finding with Manu, who sought out psychotherapy to process emerged childhood trauma. Arguably, our findings paired with other findings emphasizing the importance of support speak to the hypothesis that support is not only important for creating a safe environment, but also for gaining

meaningful insights related to human connection and the value of therapy, which seem to be implied in long term positive change.

A very recent qualitative study explicitly investigated challenges participants had with integration after psilocybin truffle retreats (Lutkajtis & Evans, 2023). These included mood fluctuations, 'post ecstatic blues', disconnection from community, re-experiencing symptoms, spiritual bypass and perceived lack of support. Arguably, these mirror some of the challenges expressed by our participants, such as feeling very vulnerable and having a heightened awareness of anxiety in the period immediately following the experience. Eva's difficulty of coming down from her 'high' is similar to what Lutkajtis & Evans (2023) calls "post ecstatic blues", and the finding of perceived lack of support is very similar to our finding of the negative influence of stigma, which was a recurrent theme among several of our participants. Similar to our participants, these challenges were transient, primarily occurring in the period following the experience, and resolving with time. Interestingly, they were also correlated with positive after-effects and remission of health conditions in the long tee (Lutkajtis & Evans, 2023). Coming face to face with difficult emotions and repressed trauma, and working through this, has also been described by participants in other qualitative studies as important for their change processes, e.g. in the case of treatment resistant depression (Watts et al., 2017) and cancer-related anxiety (Swift et al., 2017). Themes of 'letting go' and surrendering during the difficult experience have also been described as beneficial to other participants (Swift et al., 2017; Watts et al., 2017), similar to what several of our participants described. In these studies, however, they describe the value of this theme during the experience, allowing for overcoming difficult emotions, not in relation to how this has been used afterwards, as was the case for some of our participants. This also appears similar to our participants' descriptions of some challenges having helped them along in their process, such as descriptions of taking action to create change because of challenges. This points to the hypothesis that challenges result in good outcomes to the degree that people use them as a part of their integration, making meaning from them and acting on them. Another interesting avenue ripe for exploration is how the lingering societal stigma around psychedelics is affected by current research. Manu explained how the stigma around the use of psychedelics was eased by mentioning that it had taken place as part of a research study and at Rigshospitalet. Moving towards the use of psychedelics in treatment, one can hope that the societal stigma surrounding psychedelics is eased by people becoming aware of legitimate research

into these substances taking place at respected institutions, since we have shown how being met with stigma can negatively influence people's willingness to engage with their PE.

Investigation of the context of participants' lives in how they engage with their experience is hard to find in the literature. It could be argued that the lives of the participants are somewhat represented in the findings by Watts et al. (2017) of reconnecting *with past activities*. However, this finding merely reports that participants reconnect with their old passions after their PE. Again the change becomes something that just happens after the PE. The authors do not explore why the participants did this or how it became a meaningful part of their process. The focus is on the substance, not the person. The same thing can be said for reeksema et al., (2020) and Swift et al., (2017).

Generalizability of our analysis for clinical populations

In conclusion, the most clear-cut difference between our study participants and clinical study participants is their starting point. Our participants were only there to help science and experience psilocybin - they were not being treated for anything. But when used in treatment, psychedelics often affect more of the person's life than simply what is being treated (Breeksema et al., 2020). Patients often refer to various insights about oneself and one's place in the world as essential for their betterment (Kelmendi et al., 2022; Malone et al., 2018). It can be argued that this could be indicative of shared core elements of psychopathology across different diagnosis (Breeksema et al., 2020). In line with the shift from understanding diagnoses as categorically different towards a more dimensional oriented understanding of diagnosis - that one is not either healthy or not healthy, but rather various degrees of healthy - it could be argued that our analysis of a non-clinical population have value in contributing to an understanding of how to treat a clinical population (Kim & Park, 2021; Skodol, 2021). In further support of this, it is concluded by Breeksema et al., (2020 that: "[…] outcomes [of treatment] were often seen beyond the realm of the initial diagnosis, and, in fact, participants often considered these other results to be more significant." (p. 938).

Based on the above comparisons, it seems that aside from the focus on their disorder, the clinical populations describe going through many of the same processes and gaining many similar things – such as changes in perspectives, insights and a more positive view of oneself - as our participants (Breeksema et al., 2020; Crowe et al., 2023; Kelmendi et al., 2022; Nielson et al., 2018), which is

also in line with the Breeksema et al. (2020) study, in which they conclude that despite the heterogeneity of substance, setting, and population, the studies they analyzed suggest that psychedelic treatments show similar therapeutic processes and result in comparable outcomes, as well as a shared phenomenology (p. 941). Thus, many themes we found relating to the outcome of a PE – such as insights leading to change, the importance of support, challenges met because of the PE and short-term effects that subside over time - have also been found in other qualitative studies. However, our findings related to how participants actively engage with their experience and how this engagement is shaped by the context of their lives, were not found to be mirrored in existing qualitative literature. Based on this discussion, it can be argued that our findings are not just applicable to healthy populations, but also clinical ones to a certain extent. However, it can be argued that further studies should focus specifically on investigating what mechanisms of change may be different between these populations.

Theoretical discussion

In this section, we first discuss the limitations of our model of integration and resulting theoretical interpretations of our results. Next, we discuss how other theories can help deepen the understanding of our results and complement our theory of integration.

Limitations to our model of integration

In relation to the strength of our theory of integration, it should be noted that our dimensional model of integration processes arguably has its limitations. Firstly, it was not based on a systematic review of the literature on integration and a stringent conceptual analysis based on a well developed analytical method. Rather, it was based on a number of searches of the literature on integration and a less thorough analysis of what stood out to us as central elements of integration processes. Admittedly, our goal was not the development of a complete model, but rather scoping a number of understandings of the concept and highlighting the different elements they seemed to describe. Further, our model of integration is rather broad, and perhaps a narrower definition would be more precise. Our model, it should be noted, does not serve as a definition of integration, but rather as a description of a wide range of phenomena understood as important in integration processes – that is, "support", for instance, does not necessarily have to be present for integration to occur. Perhaps it could be argued that these related phenomena should be investigated more

separately in future studies, as our model creates a wide scope which can be difficult to fully capture in a single study. Investigating fewer phenomena would arguably have allowed us to go more into depth and create more detailed descriptions of these and their interrelatedness.

It can also be discussed whether what we have found described by our participants is, in fact, integration in all cases. An aspect of the concept of integration which we have focused very little on is the 'degree' of integration, commented on in other studies (e.g. Loizaga-Velder & Verres, 2014). It could be argued that it is not simply the presence of some kind of positive change in any of the modalities described in dimension 1, or the presence of any kind of integrative activity described in dimension 2, but a sufficiently comprehensive version of these which makes up integration. After all, it can be argued that many would not regard just a bit of reflection on a psychedelic experience and a slightly new perspective on things as proper integration of a psychedelic experience, and it should be noted that several of our participants primarily regarded their experience as a fond memory, and not as something that had profoundly changed their lives. However, our aim was not to judge the degree of integration in our participants, but simply to explore the potential influence of typical aspects of integration processes in their experiences, leaving the importance of these for the degree of integration as a question for future studies.

Finally, a cause of confusion can also be said to be the fact that our model attempts to include a wide range of definitions of integration. This might result in confusion, as for example dimension 1, *change,* describes a certain type of *outcome* from a psychedelic experience, understood as indicative of having 'integrated' an experience, while dimension 2, *action*, describes a certain *means* of achieving this outcome, understood as 'integration' of an experience. Perhaps this calls for a distinction between process and outcome in how integration should be defined, both of which we have included in our model. This might also have resulted in confusion relating to our results in subquestion 1 and 2, as 'how participants are affected' and 'integration' become one and the same thing when integration is partially defined as a certain type of being affected – having experienced a certain kind of change. Thus, the conceptualization of integration would arguably benefit from a distinction between the phenomena of 'having integrated' a psychedelic experience range of outcomes), and 'integrating' and experience (a multidimensional process). However, it could also be argued that integration necessarily entails both aspects, certain processes leading to certain outcomes, as, for instance, processing without positive results would not be integration, but rather a

failed attempt at integration. This, however, raises the question whether lasting positive change without the presence of aspects of integration processes would still be defined as integration of the experience. Thus, the concept of integration arguably needs to be more clearly defined and related phenomena need to be distinguished in order for it to be studied empirically.

Contributions from other theories

In the following sections, we consider how our results might be interpreted with other theories and how our model of integration might be complemented by these. Comparing our model with more recent models of integration (Aixalà & Bouso, 2022; Bathje et al., 2022), however, we find that we did cover many of the same dimensions. Aixalá and Bouso (2022) describe 7 dimensions of integration covering the elements of integration *change processes following a PE*, and thus mainly expands on the descriptions of various change modalities contained in our first dimension. Their dimensions are: the cognitive, emotional, behavioral, and temporal - also included in our model - with the addition of the physical, spiritual, and social dimensions. In particular, social integration seems like an important idea that our model did not capture. They argue that if people's social circles are directly involved in the specific transformation they undergo, and new insights are integrated into their way of being together, as seen with Anna and her partner, PE's might have a greater and more lasting impact - not only on the people having them, but also on their surroundings. In Bathje's et al. (2022) model (figure 3 below) these dimensions are called "domains" of integration and encompass somewhat similar dimensions as Aixalá and Bouso (2022), although in somewhat different terms, slightly different categorizations, and the addition of "natural world" as a separate domain. Their model, however, also includes different continuums on which 'integration activities' can take place (as seen in the outer rim of the hexagon in figure 3), which could serve as an expansion on the simple division of "processing" and "implementing" in our dimension. Bathje et al. (2022) also include a focus on context, arguing that integration requires time, space, and proper physical surroundings, which can help explain Theme 8, containing descriptions of the influence of context beyond social factors, which our model did not specifically focus on. How these models as well as other theories can help expand on our analysis and conceptualization of integration will now be expanded upon.
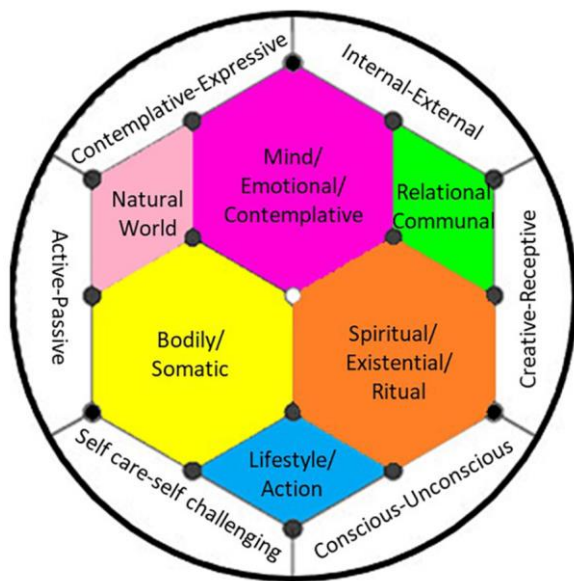
Figure 3: Model of integration by Bathje et al. (2022, p. 08)

Pivotal Mental States

A recent theoretical understanding of the changes psychedelics are able to produce is as a Pivotal Mental State (PiMS) (Brouwer & Carhart-Harris, 2021). PiMS are described as mental states with "a heightened ability to mediate major psychological change." (Brouwer & Carhart-Harris, 2021, p. 324) and are more broadly defined as:

> "[…] transient, intense hyper-plastic mind and brain states, with exceptional potential for mediating psychological transformation. We sharpen this definition by suggesting three key identifying criteria: (a) elevated cortical plasticity, (b) an enhanced rate of associative learning and (c) a unique capacity to mediate psychological transformation." (p. 320)

The authors argue that the overwhelming experience people can have on psychedelics are a prime example of PiMS, but that psychedelics are by no means the only thing capable of producing PiMS (Brouwer & Carhart-Harris, 2021). In fact, it is described as a capacity evolved to deal with real or perceived existential threats, that produce such stress that they seem to overwhelm the body's homeostasis (Brouwer & Carhart-Harris, 2021). They further report that humans have intentionally sought out other stressor situations for spiritual and self-development purposes, such as silent

retreats, fasting, social seclusion in nature or celibacy (Brouwer & Carhart-Harris, 2021). This also holds true for at least one of our participants (Liv), who had prior experience with Vipassana, a form of silent meditation retreat. The sense of a perceived existential threat seems applicable to the experience of many of our participants, as they described it as an overwhelming experience that required them to *surrender*. Our participant Alex even spoke of feeling his sense of self being completely deconstructed and dying, which can be understood as a perceived existential threat.

That relates to the experience itself, but this section is focused on *integration*, which relates to things around the experience. Integration is often understood as what comes *after* an experience, but in the article on PiMS the focus is mainly on what precedes and mediates the experience (Brouwer & Carhart-Harris, 2021) – aspects that we also found to be important among our participants. What precedes the experience relates both to one's past and to one's more recent life events or ongoing processes (Brouwer & Carhart-Harris, 2021). As shown in the model below, the boundaries between recent and long-term past are arbitrary and overlapping:
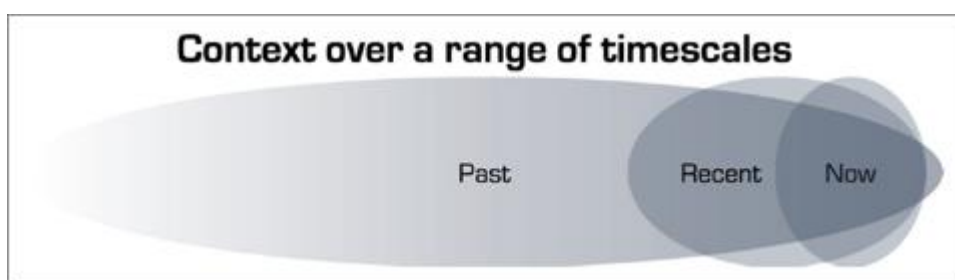
Figure 4. Context understood over time (Brouwer & Carhart-Harris, 2021, p. 320)

Similarly, Aixalà & Bouso (2022) also place importance on what comes before the psychedelic experience. They argue that the work done prior to the psychedelic experience will have a decisive influence on the experience itself and therefore, what needs to be integrated afterwards (Aixalà & Bouso, 2022). Similarly, Bathje et al. (2022) argue that one's expectations about the experience plays an important role. That the context of one's life and one's expectations played an important role in the experience itself and the results from it was evident among our participants as well. Our participant Sally came with no experience or understanding of psychedelics or expectations about their perceived ability to evoke change and in turn, the experience had very little influence on her life. Others participated with the intention of working with ongoing life processes, such as Ida who struggled with her process of divorcing her husband, which in turn came to be a major aspect of her psilocybin experience. For her, it was the ability to experience her conflicting emotions

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towards the husband in coexistence, that gave her the courage to make the changes she knew to be right for her. In the PiM model it is posited that such an emotional breakthrough is an important mediator in producing long-term change, as it modulates the associations made during PiMS, which then intensifies their influence on one's beliefs and perspectives (Brouwer & Carhart-Harris, 2021).

An interesting case of how one's long-term past is able to influence the PiMS and the results of it is seen with our participant Manu. During the psilocybin experience he experienced intense convulsions, which he understood as his body releasing trauma. He went on to explain how the experience had had a fundamental impact on his self-understanding, moving him from an understanding of himself as a person with a temper, to a person highly influence by childhood trauma, which had been causing him to act as a person with a temper. Brouwer & Carhart-Harris (2021) argue that inducing PiMS should be done cautiously, since basic assumptions that a person holds can have stabilizing effects on their mental state, even if they are symptomatic of mental illness. Although Manu did not suffer from mental illness, it was, however, evident how these basic assumptions about himself (a person with a temper) had had a stabilizing influence on his mental state. After working with a therapist to release the effects of his traumas that had influenced his behavior for so long, he describes a feeling of emptiness, since he no longer wanted to act the way he had always done, but does not know how else to behave. He must reinvent himself. Thus, the PiMS theory can help explain how even therapeutic PE's can have destabilizing effects, perhaps underlining the importance of support even in the case of good experiences.

Ontological and psychotherapeutic integration

Aixalà & Bouso (2022) differentiate between ontological and psychotherapeutic integration, with ontological integration focusing more on personal growth, whereas psychotherapeutic integration focus on integrating the experience with the purpose of treatment. Our participants can therefore mostly be said to have engaged in some form of ontological integration, except for Manu, who sought our therapy following the experience. It can, however, be discussed whether his new insight into childhood trauma, should be viewed as an ailment, or if his psychotherapeutic work following the experience should be viewed as a path towards personal growth. That those of our participants who understood the psilocybin experience as something potentially transformative mostly engaged in a form of ontological integration and someone like Manu sought out therapy makes sense in the
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integrational understanding of Aixalà & Bouso (2022), as they argue that people who have had years of personal work, are socially well adjusted, relatively trauma-free, and psychically stabile are more likely and able to draw benefits from ontological integration work (p. 68). In our results, we also see indications of a tendency in our participants that the ones who are used to doing some form of personal work seem to be able to use their insights, and thus gain more from the experience than the ones who are not as used to this (Theme 6). Mostly, our participants have done work focusing on what the experience has given them in terms of broadening their perspectives of themselves and the world they live in, who they are as a person and how they experience reality. The best example of a somewhat changed perception of reality amongst our participants is Anna, who describes how she experiences people as having different colors which she associates with how that person is and behaves, which in turn influences if she wants to engage with them. In general, many of our participants described an increased understanding of everything being connected (i.e., moving from "we are two different people" to "we are both human"), which could also be said to be a different understanding of reality. It could be hypothesized that differences in change processes and outcomes between healthy and clinical populations could be explained by this distinction between therapeutic and ontological integration – i.e. people without an acute need for therapy tend to have integration processes that are more ontological.

Context and person influence outcome

All our participants fortunately had positive experiences. Aixalà & Bouso (2022) also argue that most people are able to have a psychedelic experience and rejoin ordinary consciousness without much trouble, as seems to be the case for our participants. Although Alex did mention that he struggled a bit with accepting that he could not return to the mental state he was in during the psilocybin experience, it did not seem to cause him any long-term distress or be indicative of addictive behavior.

But it is inherent in the PiMS model that PiMS do not necessarily produce positive change (Brouwer & Carhart-Harris, 2021). PiMS are neutral in the sense that they do not entail either positive or negative changee. What influences the effects of a PiM is both the past of the person undergoing it and the context in which it occurs (Brouwer & Carhart-Harris, 2021). This was also an aspect of the experience that many of our participants noted when asked what had been good and what could be better, describing that their comfort with the staff present during the psilocybin

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experience was very important for them. In relation to this Aixalà & Bouso (2022) also highlight the importance of establishing rapport and trust in ensuring good prognosis in a therapeutic context. At the same time, it is noted that context is rarely entirely positive or negative, since it is subjective and relational (Brouwer & Carhart-Harris, 2021). Regarding this, a curious dualism was apparent for several of our participants. Several had chosen to participate out of an interest in trying psilocybin but were afraid to do so on their own, and they described the context of the hospital research unit and presence of doctors and psychologists as giving them a sense of safety. However, in the interview many also described the hospital as a weird setting for such an experience, with some stating an interest in trying psilocybin again, but not in a hospital. Brouwer & Carhart-Harris (2021) stress the importance of person being prepared for the PiMS to maximize the possibility of a positive outcome. This was also described as important among our participants, for example Sally who had fears of becoming addicted or Anna who feared "going crazy" from the experience, both of whom had their fears eased by the staff. With a psychedelic induced PiMS, the basic preparedness of knowing that you have ingested a psychedelic substance and that this has the capacity to dramatically alter your consciousness and experience of reality is of course essential. The negative consequences of lacking this preparedness is evident in studies from the 1960', such as the ones conducted at Frederiksberg Hospital, in which large doses of LSD were given to mentally ill patients that did not clearly understanding its effects (Larsen, 2016).

Another curious paradox mentioned in relation to PiMS and also observed our interviews, is that this hyper-plastic state can both serve to aid in unlearning unwanted understandings and behavior, but also reinforce previous beliefs (Brouwer & Carhart-Harris, 2021). Our participants bring forward accounts of both gaining new perspectives and reinforcements of old beliefs. For some, both held true at the same time, as with Anna who described a broadening of her own perspectives and feeling more accepting towards other people, but at the same time having gained an increased sense of what is right for her and trusting her own intuition to a higher degree than before the experience.

Integration is active

A tendency we saw among our participants is that the experience and its influence on their lives, tended to fade over time. Aixalà & Bouso (2022) argue that this happens when the experience is not properly integrated, which is consistent with the fact that the ones among our participants who

described still being influenced by the experience were the ones who had continued to reflect on and reconnect with the experience. A notion also supported by Bathje et al., (2022) who similarly to our findings argue that integration requires active effort, because: "Without such active effort, valuable lessons tend to fade, and difficult experiences can reinforce traumas or existing patterns and defenses." (p. 8). The reinforcement of trauma was – fortunately – not something we saw among our participants. Presumably because they had gone through screening, and because the one participant who mentions trauma sought out therapy following the experience. That people tended to fall back into old behavioral patterns was, however, a tendency we saw. Our participants' statements support that integration is both an active and ongoing process, since it was often reported that it was during situations of pressure and low surplus where it was especially hard to live by the lessons they had learned. Like the PiMS model of context prior to the experience, it seems one could make a complimentary model as the one below:
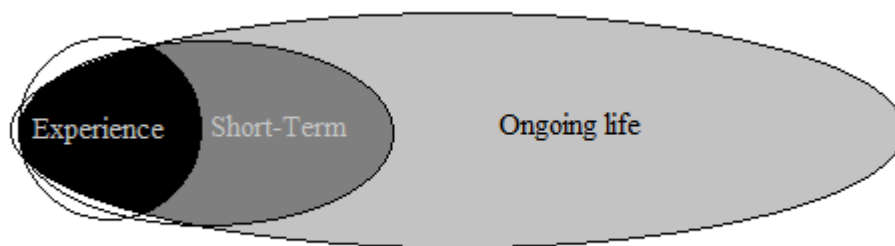
Figure 5: Post-experience integration.

The change of color (from black to light grey) illustrates how the experience is "diluted" into their lives with time, thus requiring a more active effort to retain in the long-term. Something well illustrated by Annas description of the effects from the PE going from neon colors to watercolors.

As argued by Bathje et al., (2022) we also saw there was a general tendency among our participants to have an initial period in which they were closely connected with the experience and the insights they had gained, which made it easy to live by them. This period then subsided, and a more active effort was required for the participants to remain in touch with their insights. Sally even expresses regret about not preparing herself better for the experience, thinking that she might have gained more from it, had she engaged with it and not just approached it as a medical research project. In relation to the model, Bathje et al., (2022) further argue that:

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"[…] many aspects of psychedelic experiences may continue to unfold gradually or even over the course of one's lifetime as they become relevant and take on new meaning during different phases of one's life" (p. 8).

This was also something we saw among our participants. Sally expresses an altered view of her experience at the end of our interview, wondering why she hasn't been more interested in psilocybin and her experience, expressing a desire to engage more with the experience and research psilocybin. Liv tells a story about spontaneously being pulled back into the experience by seeing a flapjack at a supermarket, which she was also offered at the end of her psilocybin experience. The flapjack reminded her of how slowly she ate it, as she was extra sensitive from the experience and was somewhat overwhelmed by the stimuli. This gave her a desire to cook, as she reflected on when the last time was, she had taken the time to really taste something.

Psychedelic discourses and chemosociality

Arguably, the effects of discourses and psychedelic chemosociality are evident throughout our analysis and should be considered as an important aspect of integration processes, particularly in relation to how they influence the fifth dimension of our model - understandings. It can be argued that our participants, in describing their motivation for participation, were generally influenced by what has been described as the 'therapeutic discourse' on psychedelics where psychedelics are thought of primarily as means of therapeutic and self-developmental transformation - as opposed to the 'spiritual' or 'recreational' discourses, for instance (Holm et al., 2023). This could be a result of their own research on psychedelic science and media coverage, which, it has been argued, has become medicalized, seeing psychedelics mainly as medications for psychiatric illnesses, rather than e.g. religious sacraments or recreational devices (Noorani, 2020), arguably also evident in how participants described the research they were exposed to. In a new preprint, Noorani et al. (2023) discuss how the phenomenon of chemosociality influences the results of clinical trials with psychedelics. Chemosociality is the phenomenon of social groups and movements forming around shared experience with certain chemicals, in this case psychedelics. An entire culture has formed around psychedelics, encompassing organizations, forums, media, and arguably psychedelic science itself, including many different political perspectives. This chemosociality, they argue, is a part of participants' societal matrix, meaning that they have access to communities and the knowledge, resources, and opinions distributed within these. And when they partake in these

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communities, they share their experiences, thus contributing to and reshaping knowledge and opinion (Noorani et al., 2023).

Our participants expressed to varying degrees their knowledge of and involvement in psychedelic community and knowledge, as described in Theme 1, being members of psychedelic organizations, reading books, watching documentaries and intentionally seeking out the psychedelic community share experiences with likeminded people. In an interesting example, when making sense of the change he has experienced, Manu uses terms such as "integration" common to the psychedelic community, and comments on the importance of acquiring a language with which to understand and talk about one's experience – a language available within the psychedelic community. Engaging in chemosociality can arguably be seen as an example of social integration, and it most likely often contributes to participants' integration, helping them with support and understanding. However, in a more critical perspective, the chemosocial psychedelic discourses participants have access to mediate how they make sense of their experiences, perhaps sometimes in unfavorable ways. In the case of Alex, for example, his understanding of 'the Ego' as something bad within oneself that controls one's life and causes suffering (as evident in his conflict with the 'person talking in his head'), some have argued, is popular within spiritual communities, but can cause people to essentially wage war on their own minds and cause even more suffering (Schwartz & Sweezy, 2020). These examples arguably represent ways in which chemosociality and discourses play a role in the process of how participants integrate their experiences, and future studies should arguably focus more on these influences.

Methodological discussion

In the third part of our discussion, we consider the strengths and limitations of our methodology and discuss how various aspects of it may have influenced our analysis. In this discussion, we attempt to cover all major aspects of our methodology described in Chapter 2, as well as a number of further aspects of our research process which are highlighted as important to consider in reflexive approaches (Braun & Clarke, 2022b). This discussion, thus, will take the shape of an unraveling of the study, starting with discussions of the analysis, continuing backwards to the interview conduction and design, participant sampling and metatheoretical framework, ending with considerations regarding our subjective positionings as researchers.

Analysis

In this section, we discuss the limitations with our analysis and choice of analytical approach and consider how it has influenced this project. Braun and Clarke (2022b) describe the situated nature of research processes, but also of their own model of RTA and qualitative research in general. They present it as a map creatively depicting a version of research based on certain values and beliefs and inevitable partial understandings of a perpetually developing science (Braun & Clarke, 2022b). This implies that any choice of analytical approach involves a certain way of approaching and presenting data, including certain limitations.

The validity of analytical interpretations

In relation to the conclusions we have drawn based on our analysis, the validity of our evidence regarding the role of integration in how participants have been affected should be considered. In answering whether integration played a role in how participants were affected by their PE, we base our conclusions partially on our own interpretations of connections between different descriptions which could imply that integration has played a role - for example inferring a connection between a participant's description of having come to insight through reflection, and this insight playing a role in some positive change in their life – as is the nature of the analytical method. Limitations to our interpretations, however, have implications for the validity of our conclusions.

According to Kvale (2005) the range of answers which make up the results of an investigation is not only decided by the answers posed during the interview, but also during the analysis. He proposes three levels of interpretation which make up the interpretive contexts in which questions can be posed to a text, requiring different ways of evaluating their validity. At the *self-understanding-level* the researcher attempts to interpret only what the interviewees themselves understand as the meaning of what they are saying. In principle, the validity of these interpretations must be judged by the interviewee who would either confirm or deny their accuracy. Therefore, arguably, these interpretations should ideally be made already during the interview so they can be presented back to the interviewee by means of 'interpretive questions' (Kvale & Brinkmann, 2009)– e.g. "Is it understood correctly that…?" – which we strove do during our interviews. However, as Kvale (2005) points out, in practice it is difficult to present each interpretation to the interviewee given the attention and overview required by the interviewer – something we found hard to accomplish

- leaving it up to the researcher to keep their interpretations within what they see as the interviewee's self-understanding. Another solution is to present the final analysis back to participants upon the completion of the study in order to validate interpretations (Kvale & Brinkmann, 2009), but this was beyond the scope of our project. It should be noted that these approaches to validation rely on the validity of participants' own interpretations, which will be discussed later.

Therefore, our analytical conclusions surrounding the role of integration are primarily based around the level of *theoretical interpretation* where a theoretical framework and its concepts are drawn (in our case 'integration') which go beyond the interviewee's own understandings (Kvale, 2005), and the *common sense-level* of interpretation, where the researcher draws on more common understandings of what is being said, as in the case of phenomena which were not included in our theoretical model. The validity of these interpretations, according to Kvale (2005), will be based on a judgment of the validity of the theory within the area of application - whether the specific interpretation follows reasonably from the theory - as well as the judgment of the general reader regarding whether the interpretation seems well-documented and supported. Arguably, some analyses are more speculative than others, so the basis of each interpretation should be apparent to the reader. The questions posed during the analysis, he argues, too often lack explication, resulting in questionable analyses (Kvale, 2005). By explicating the theoretical basis of our interpretations, we have hoped to achieve transparency regarding what interpretive questions we pose to our data, thus making it easier for the reader to judge their validity. A limitation to our theoretical interpretations, however, is that our dimensions were relatively vague, perhaps partially due to the limitations of our conceptual analysis of integration as described earlier. This has arguably resulted in the fact that indicating a role of integration was relatively easy to achieve, as for example 'support' and 'playing a role' were loose concepts which could include a wide range of phenomena. Therefore, we run the risk of 'shoe-horning' our data to fit preconceived theoretical ideas (Braun & Clarke, 2022). This risk, however, we have attempted to mitigate by keeping our interpretations tentative and highlighting data that did not fit with our theoretical concepts, as our analysis hopefully shows.

Further, due to the wide scope of our study, it can be argued that our analytical interpretations are often based on rather sparse argumentation. Kvale (2005) argues that the criterion for valid interpretation in analysis is that a reader taking the same view of the text as the researcher, regardless of them agreeing with this viewpoint or not, should be able to make the same interpretation.

Varying subjective interpretations, which are explicitly reflexive of their interpretive basis, he concludes, do not constitute weaknesses, but rather provide a richness and strength in qualitative interview studies (Kvale, 2005). While we have attempted to make explicit what interpretive questions we pose to our data through our deductive analytical approach, and will later reflect on our positionings and their influence, a limitation to our analysis can be said to be the fact that it was difficult to provide enough context for our interpretations for readers to fully judge the validity of interpretations. Arguably, our analysis has attempted to investigate such a wide variety of concepts – six different complex theoretical dimensions of integration - that the depth of each theme and the examples given risk remaining rather superficial and lacking basis to a certain extent. Arguably, the role of these dimensions should be investigated separately and more in depth in future studies.

Strengths of approach

For our study, we found RTA a compelling choice of method for several reasons. Firstly, the reflexive stance and adherence to the qualitative paradigm aligned with our metatheoretical stance that research is a contextualized social practice. It allowed us to find commonalities in participants' descriptions and describe common themes, thus giving us the opportunity to theorize about general ways that people process PE's, as was the goal of our project. RTA offered us theoretical flexibility, approaching our topic in the way that we found most appropriate, and allowed us to analyze our data deductively, with our interest in the concept of integration as a guiding element. We also considered Interpretive Phenomenological Analysis (IPA), but this approach requires us as researchers to set our prior understandings aside – what is described as 'putting it in parentheses' in phenomenological approaches (J. A. Smith, 2015). For our study, we did wish to approach participants' stories exploratively, but we were explicitly guided by our prior understanding of integration, in our view making RTA a more fitting approach.

Limitations of approach

A limitation of our analysis, it could be argued, is that there is some overlap between our themes, which conflicts with Braun and Clarke's (2022b) notion that themes should have clear boundaries. For example, in the themes *Change Through Action* and *Action Through Prior Understandings* somewhat similar descriptions are given, as these are relevant to multiple themes. One could argue,

however, that this is simply the nature of attempting to categorize multifaceted data, and that thematic analysis will always entail a level of artificial separation of interrelated phenomena, as also pointed out by Brown and Clarke (2022). It could also be argued that it is the nature of our investigated phenomena, as they per definition make up different dimensions of the same phenomenon – i.e., integration. Arguably, other analytical methods of categorizing the data which could have allowed for more holistic and multifaceted descriptions could also have been employed, such as IPA (J. A. Smith, 2015). These approaches, however, do not allow for comparison between participants to the same extent as TA, arguably making this a more fitting choice for our purposes.

Interviews

We will now discuss the strengths and limitations of our interview conduction and design in relation to their impact on our results, in particular pointing out issues that might have implications for validity.

Validity of participants' interpretations

One factor influencing the validity of our conclusions is participants' ability to reflect on their own story as facilitated by the questions posed by us, which involved a number of limitations. In answering our research question of what role integration has played in how participants have been affected, we base our conclusions on answers given by asking participants directly, such as in the questions: "Did you actively do something to create this change?" or with probes such as "What did X do for you?". In response to these questions, participants were able to express explicitly that dimension of integration had played a role. Sometimes, participants even spontaneously gave these reflections, such as in the case of Sally, who gave unprompted reflections on how her fear of addiction might have caused her to distance herself from her experience. A limitation to our study is that we did not systematically ask both descriptively and reflexively about all dimensions, (following the distinction of Kvale & Brinkmann, 2009), such as "Did you receive support from your surroundings?" (descriptive) and "If yes: Did this play a role in what you got out of the experience?" (reflexive), which would have allowed for a more thorough uncovering of the role of each dimension of integration. We had not fully considered this when we designed our protocol, and in future interviews we would investigate all dimensions with both descriptive and reflexive questions.

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An issue with this approach, however, is that it requires subjects to make the connection between certain phenomena themselves, which involves analyzing their owns experiences over a very long period of time. This requires a relatively high level of reflection from them, making their statements a bit less reliable (Kvale & Brinkmann, 2009). This exercise might be more difficult with some of our dimension than others. For instance, it may be easier to be certain that having decided to seek out therapy played a role in one's change process, such as in the case of Manu, in contrast to having had a prior understanding of the Ego as non-existent, such as in the case of Alex. Regarding the latter, such beliefs are arguably often latent, making up the fabric of one's perceptions of reality, thus not something one is consciously aware of. This was arguably also evident from the fact that our participants often had a hard time answering the question of exactly that: whether they had any preconceptions or intentions that influenced their subsequent process. This, of course, also relies on participants interpreting our questions as intended, which cannot be guaranteed either – an issue which can be mitigated with clarification during the interview, which we did not, however, always succeed in. Although we rely on participants to do so, we cannot take it for granted that participants would be able to interpret something as having played a role in how they were affected by their experience, even if it did, and reliably report on exactly what we are looking to investigate. This, of course, has implications for the validity of our conclusions, along with other issues in interview conduction, which will be discussed below. First, however, we discuss whether inaccuracy of accounts in interviews are, in fact, as problematic as they can seem.

'Truth" in qualitative studies

Where quantitative research often seeks to test, qualitative research seeks to explore and understand (J. A. Smith, 2015). In relation to our study, this means that we do not ask questions such as: "*Do people who integrate their PE gain more from it than people wo do not*". This question would require having an integration group and a non-integration group, measuring them on some parameters before and after, and could then be answered with either yes or no. We instead seek to explore how they integrate, why they do it, what it does for them etc. Instead of testing an existing theory, this can be used to inform a new one or develop and existing one. As such, our study has a more exploratory character, rather than confirmatory. This also means that as interviewers, we are not that concerned with the accuracy of the participants statements, that is, did they actually do what they say they did? Quantitative methods such as statistics are good for finding links in large sets

of data, the qualitative interview allows us to explore *why* we see certain links and patterns (Gerson & Damaske, 2020). It is the meaning-making process of the participants that interest us, not assessing whether their statements are "true". Indeed, searching for any objective truth would be a futile endeavor, since people construct narratives of their lives, that are neither completely true, nor untrue (Gerson & Damaske, 2020). Therefore, contradictory reports are not necessarily problematic, but instead offer an opportunity to explore why this contradiction exists, what meaning it has for the participant and what consequences it has for their life (Gerson & Damaske, 2020). Thus, in relation to our discussion of validity above, participants can be viewed as conveyors of their own meaning, which, regardless of the accuracy of specific events in their accounts, can still be seen as valid representations of how they understand their narrative. Of course, it is still important to investigate, for instance, how much support participants actually received, and how much action they actually took in their change process, but the role people perceive support and action as having played in their change narratives can also be said to reveal important aspects of how psychedelic experiences come to affect people's lives over time.

Bias in interview conduction

In this section, we discuss a number of biases in participants and ourselves which might have influenced our results. One of the potential issues in interviewing is "social desirability bias" – a tendency for some participants to report only what is in line with what's socially desirable or acceptable (Gerson & Damaske, 2020). When interviewing, we run the risk of our participants only telling us what they think we want to hear, thus not giving us a truthful account of their actual meaning-making (Gerson & Damaske, 2020). Here, it seems important to note what is meant by 'truth', since we have argued that the aim of interviewing is not the pursuit of any objective truth. The difference is that if a participant reports having done something because of a certain belief they hold, it is not important whether the belief is true. What is important is that they report that belief as the reason for their action. The social desirability bias becomes problematic when the participant reports having done something because of a certain belief, when it was in fact another belief that guided their actions. What is important is that the participants give truthful accounts of *their* beliefs and *their* interpretations, not whether these beliefs and interpretations are objectively correct (Gerson & Damaske, 2020). One such belief is exemplified by a participant (Kim), who expressed how he was biased by the fact that he wanted the research to be a roaring success as a

result of his own positive experiences. This, he reflects, probably causes him to speak overly positively of his experiences. This indicates that participants wanting to tell a positive story may also have been a source of bias in our investigation. This is further problematic, since expectancy effects most likely cause an over-estimation of effect sizes in psychedelic RCTs (Muthukumaraswamy et al., 2021).

We tried accommodating for the social desirability bias by creating a safe space for the interviewees. The interviews were done using zoom, which allowed the participants to participate from a place of their choosing, making it more comfortable and accessible for them. Furthermore, we started each interview by clearly stating that we were interested in their story and that there were no "wrong" answers. During the interviews we tried to explore and acknowledge all answers equally, so as not to show favor to only some answers, that might lead the participants to elaborate extensively on something that was not important to them. However, as described, we approached the interviews with certain understandings – such as integration being important for benefitting from psychedelics – and we cannot fully deny this might have led us to pursue answers in line with our understandings, more than answers that were not in line with our understandings. We tried accommodating for this by being aware of our bias and actively looked for answers that were not in line with our beliefs (Gerson & Damaske, 2020).

While interviews are often criticized for creating bias through leading questions, Kvale (2005) argues that problem is not an excess of leading questions, but rather a failure of researchers to accommodate the inevitably leading nature of interviews (Kvale, 2005). Interviews, he argues, are in their nature leading – they lead their participants to talk about specific themes in a certain order. However, by being aware of the leading nature of interview questions the interviewer can go into detail about the meaning of answers given (Kvale, 2005). We attempted to stay aware of the ideas behind our interview protocol and make these explicit throughout the interview in order to accommodate this issue. However, it was difficult to go into detail with every response given, and thus most likely often failed to bring out the nuance and contradictions that would have allowed us to provide counterexamples to our theory.

Although we can never fully guarantee that these bias have no impact on the study, being aware of them is the first step to minimizing their impact (Gerson & Damaske, 2020). Aside from this and the previously described steps taken to create a safe atmosphere, we also ended each interview

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with a debriefing, where we asked the participants about their experience of the interview. No participants reported the interview as being uncomfortable, and many expressed that it had been valuable for them as well.

Limitations to our interview protocol

Our operationalization of our model of integration in the shape of our interview protocol also deserves scrutiny, as it involved a number of limitations which may have influenced our final analyses. First, we arguably neglected a number of foci, limiting the scope of results we could achieve. At the time of developing our interview protocol, we both tried to limit the amount of questions included and were also not completely aware of how the different dimensions of integration should be understood, thus making us overlook important aspects of these in our interview questions. For example, we did not ask specifically about the influence of understandings and challenges in the long-term and short-term but rather more generally. In our analysis, this made it difficult to tell apart whether descriptions related to the short-term or long-term or both, which may be influential. We also did not investigate how certain dimensions, such as *action*, can be relevant already during the session, as the theory of integration indicates. An example of certain influential behavior during the session could be Sally, who describes resisting the experience during the session due to her fear of losing control and not being a good research subject, which was arguably based on her prior understandings (i.e., fear of addiction and losing control). Arguably, more focus on distinguishing the temporal aspects of participants descriptions during the interview process with questions specifically designed to this purpose as well as an intricate temporal focus in the analysis would have made for a more precise and nuanced investigation of the temporal dimension of all the aspects of participants processes. Ultimately, the fact that our investigation developed and changed over time throughout the research process as we learned more about qualitative methods meant that at the time of designing our interview protocol, and later conducting the interviews, we were not as clear on how the phenomena we sought to investigate should be understood, as well as how they could best be investigated, resulting in limitations to our analysis. However, our study has hopefully contributed to future studies being able to operationalize the concept of integration better, ensuring that more nuances of integration processes are covered.

Participants

It is arguably important to discuss our specific participant sample for our results, particularly in relation to its implication for our results. In this section, we consider differences within our participant sample as well as the overall characteristics of our sample and their implications for how our results could be interpreted, as well as discuss what could be done to mitigate issues in future studies.

Intra-sample differences in follow-up timeframe

Firstly, our sample consisted of participants who had participated in a psilocybin session between 6 months and 4,5 years prior the interview. In our analysis, we have not differentiated between these participants or compared their accounts in relation to this broad span in timeframe. Rather, we have only looked for similarities in their accounts, and created common themes based on these. Therefore, a number of potentially influential differences between these participants should be considered. It can be argued that participants who had their PE several years prior to the interview will have a harder time recalling events, particularly in the period prior to, and immediately following their experience, and thus, their answers are probably less accurate and detailed than participants who had their experience recently. Several participants stated explicitly that they had a hard time answering our questions due to the long time elapsed. However, the accounts of participants who had had their experience long ago were also valuable, in that they reveal what role experiences come to play in people's lives in the long term, which we were also interested in. Some participants pointed out that, due to having talked and thought about their experience a lot throughout the years, they had created strong narratives surrounding what they had experienced, and what it meant to them. It can be hypothesized that it is exactly this incorporation of the PE into their self-narrative in certain ways that make up long term integration, as rewriting of narrative self has been shown to play a part in psychedelic change processes (Amada et al., 2020). A case, however, could be made for separating these participants into different groups in order to investigate short- and long-term integration separately in order to strengthen the quality of data by reducing errors of recollection. It could also be argued that in order to study integration thoroughly, longitudinal studies should be conducted interviewing participants both before, immediately after, and in the long term after the experience, thus integrating the temporal dimension of integration into the study design itself.

Participant demographics and transferability

In order to properly interpret the implications of our results, it is important to consider their *transferability*. This means considering the specific context of the research including not only participant demographics, but also the setting and circumstances of the research process and the (cultural) norms and practices influencing it, as this decides the application of the analysis to other contexts and thus its generalizability (Braun & Clarke, 2022b). We have already discussed the generalizability of our analysis to a clinical context by comparing our results to other qualitative studies. However, a number of features of our sample must be considered in order to fully evaluate how our study relates to other contexts. First, it should be noted, however, that the question of generalizability in qualitative research is a disputed one, and some have argued that the demand for statistical generalizability implicit in the positivist research paradigm dominating western science has led qualitative researchers apologizing for small samples. But as Braun and Clarke (2022b) illustratively note, qualitative researchers having to apologize for lack of generalizability could be seen as akin to a statistician having to apologize for a lack of rich descriptions of the nuances in people's everyday lives. This notion of generalizability, they argue, is unapplicable to qualitative research, and different standards for ensuring a wider relevance of results in qualitative research should be used (Braun & Clarke, 2022b). Therefore, we now discuss the transferability of our results.

In some respects, our participant sample was highly homogenic, including in level of education and the context in which they had their psilocybin experience - the context of neurobiological research at Rigshospitalet. This context and population, consisting of a few thousand participants in total (Bender & Hellerstein, 2022), is arguably a highly particular one compared with the wealth of contexts people ingest psychedelics in (Forstmann et al., 2020). It is generally agreed that both the specific physical as well as cultural context in which psychedelics are ingested plays an important role in influencing the psychedelic experience (Carhart-Harris, Roseman, et al., 2018; Gorman et al., 2021; Noorani, 2021), underlining the importance of considering the contextual nature of our participants' experiences. Our analysis indicated that this research setting arguably gave participants a number of both expectations and prerequisites for support which influenced the outcome of their experience, and would be different in other contexts. Further, we conduct this study in a Danish research context, the implications of which, due to our reflexive metatheoretical assumptions, we think are important to be aware of. Discussions are ongoing regarding the limitations of the white Western medical research

tradition in which we partake, which has dominated the field of psychedelic science since the first wave of research starting in the 1950's, including the inequality and injustice it might create (George et al., 2019). These discussions, in our view, are crucial for the progress of the psychedelic research field. One could argue that our participants occupied positions of privilege compared with other people who ingest psychedelics, possibly influencing e.g. what challenges they were met with, as well as the degree of challenge. In conclusion, these contextual factors mean that our participants' experiences and our interpretations of them should be compared cautiously to other contexts.

Sample size and saturation

Our study can also be discussed in relation to the number of people participating and whether these provide enough data to support our conclusions. Where quantitative science looks at large sets of data to ensure validity, interviewing focuses more deeply on a few cases (Gerson & Damaske, 2020). The object here, some argue, is not to reach statistical significance, but instead to reach *saturation* – when each subsequent interview does not evoke new findings, but only confirms precious findings (Gerson & Damaske, 2020). Since our goal was not to create exhaustive descriptions of all the ways various dimensions of integration play a role in how participants are affected by PE's, but rather explore a number of phenomena to be investigated further, contributing to the limited number of existent qualitative studies, reaching saturation was arguably not within the scope of our study, but is arguably something to be achieved with further studies. On the contrary, Kvale (2005) argues that the problem in qualitative studies is often too many participants rather than too few, resulting in huge quantities of data making researchers unable to interpret individual interviews in systematic and proper ways. The demand for quantity, he holds, overlooks the valuable research which has come from intensive analysis of few cases. By analyzing the relationship between only a few individuals and their environments, he argues, it is possible bring out general connections which can be retested by others through explicit descriptions of the methodological procedure (Kvale, 2005). We have tried to accommodate for these critiques by selecting a number of participants which we could properly analyze within our timeframe based on the recommendations by Braun & Clarke (2022b), and perhaps this scope, given the great number phenomena we wanted to investigate, was even too wide, resulting in less nuanced descriptions as we could have achieved. This is problematic since the merits of qualitative studies, as written earlier, lie in their ability to describe details, nuance, contradictions, and extreme cases, not captured in quantitative

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studies. Therefore, we would argue that in order to thoroughly investigate the multidimensional nature of integration processes, the way forward is a greater number of qualitative studies each focusing on depth rather than breadth, and thus fewer participants and narrower foci.

Our positionings

According to Braun and Clarke (2022b) the question is not *whether* our assumptions shape research, but *how*. Therefore, they argue, an important part of reflexive research is to investigate these assumptions and be transparent about how they might have affected the research process, specifically regarding one's positionings. These include *personal/social positionings* (positions of privilege or marginalization, background/life experiences, and political commitments) and *functional/disciplinary positionings* (disciplinary interest and assumptions, professional affiliations, methodological or theoretical commitments) (Braun & Clarke, 2022b), which will discuss to the extent that they might have influenced our research project.

Personal experience with psychedelics

One personal positioning important to discuss is our personal experience with psychedelics. The topic of personal experience with psychedelics among researchers and practitioners is quite controversial in psychedelic science (Kious et al., 2022). Personal experience has both been seen as a great driver of the field, as well as been criticized for leading to biases and the conflation of political and spiritual values with scientific approaches which, according to some, was a factor in the prohibition of psychedelic research in the 70's (Johnson, 2021; Kious et al., 2022; Nielson & Guss, 2018). We have both had psychedelic experiences that have left great impressions on us, and it cannot be denied that these personal experiences have played a part in leading us to this project. Further, having engaged with the psychedelic community, we have perhaps taken on several assumptions regarding the relevance of psychedelics and how they might function, such as the somewhat taken-for-granted notion that integration is an important part of gaining therapeutic benefits from psychedelic experiences - that if you did not gain something from a psychedelic experience, you did not engage with in the proper way, or were not given the proper support to work with it. These notions can be criticized in themselves for taking a medicalized perspective on psychedelic experiences in which therapeutic gain is seen as the only thing giving legitimate value to psychedelic experiences (Noorani, 2020). By focusing on what participants have 'gotten out of' their

experiences, what 'change' they have experienced, and the role integration in this, we perhaps reproduce the idea that psychedelic experiences do not hold other merits than their therapeutic ones, are not valuable in and of themselves, that they should be measured by their outcomes in people's lives, rather than, for instance, be investigated by what role they play in a community, thus acknowledging the fact that there are other understandings of psychedelics – i.e. the understanding of psychedelics as social and spiritual centers in many indigenous communities. We could also have investigated what other discourses shape the use and understandings of psychedelics, such as the 'psychedelics as medications', as in the study by Holm et al. (2023), instead of merely briefly mentioning these in the discussion. Of course, our study should not be criticized simply for taking a certain perspective and focus, as all studies inevitably do, but we wish to underline the importance of acknowledging that there are many other, perhaps neglected perspectives which could have been included in our study.

In the process of developing our interview questions and conducting the interviews, we have attempted to place our assumptions in parenthesis to be able to meet the stories of our participants in an unprejudiced way. Further, we have attempted to keep our investigation as open as possible within its frame - investigation of Danish psilocybin research participants who evidently often participated with therapeutic and self-developmental motivations – which is already a quite narrow frame influenced by certain discourses. We did this by not structuring our interviews in a way that only centered around certain outcomes, but also gave room to a wide range of descriptions. However, since our project does not try to prove or disprove any hypothesis, we do not feel a pressure to emphasize or underline certain results rather than others. On the contrary, we also have the impression that psychedelics are overly hyped in mainstream culture and therefore feel it would equally benefit the field if we could temper this hype by showing that not everyone necessarily benefits from a psychedelic experience and that psychedelic experiences might simply be experiences. With all this considered, one could reasonably raise the critique that it is a little too convenient that we set out with an idea that integration is important and find exactly that. That is exactly why we aim to be as transparent as possible and ground our analysis in quotes by the participants. This allows the reader to assess whether we have simply been biased or whether our analysis holds merit based on the data available.

Positioning in relation to participants

Braun and Clarke (2022b) point out that the way our participants perceive us plays an importance in what they might tell us, and what they might not. To us, this is important to take into consideration when interpreting our interviews. We did not experience ourselves as occupying positions of neither privilege nor marginality in relation to our participants or the topic of investigation. Rather, we felt we made up a rather homogeneous group together with our participants – all fairly highly educated people from higher socio-economic layers of society. Meeting our participants, we presented as students interning at the hospital where they had participated in the psilocybin research trials, representing this scientific institution many of them said played an importance for how safe they had felt throughout the interview, and in making them want to contribute. Given this, we probably presented ourselves fairly neutrally. Given the fact that we had not ourselves participated in the studies but were arguably more integrated in the psychedelic community than our participants, we were outsider researchers regarding the specific experiences they had had, but insider researchers in relation to the research topic (Braun & Clarke, 2022b). This created an interesting dynamic of us attempting to present ourselves as ignorant and interested in their experiences, while feeling like we recognized and understood a lot of their experiences.

Even though we are only students and not fully-fledged researchers we must acknowledge that there is some power imbalance, since we are the ones who define the nature of the interview (Gerson & Damaske, 2020). When contacting the participants, we also presented ourselves as members of a research unit which is located at the biggest and arguably most well-respected hospital in Denmark – Rigshospitalet - which arguably contributed to our ethos as researchers, thereby further skewing the power balance (Gerson & Damaske, 2020). This made it important for us to establish a safe space, where the participants felt that their answers were valuable contributions that we took seriously. Furthermore, it was also important that they did not feel judged based on their answers. They had to feel comfortable in knowing that whatever they said was acceptable answers to us. We tried to accommodate these things by explicitly thanking them for their participation, making it clear that they could withdraw from our study at any point and also asking them what they thought could be interesting to study in relation to a PE. However, it could be argued that the participants that asked us whether we ourselves had tried psychedelics did so to clarify if we would understand them. Hence, they might not be completely comfortable in explaining their experience

out of fear that it might seem weird to us. When asked whether we ourselves had tried psychedelics, we decided to dodge the question, as we admittedly were not prepared for it, and unsure what to answer. Instead, we underlined that they could trust that we understood what they were talking about and did not judge any of their descriptions. We got the impression, however, that it mattered what the participants thought of us. One participant, a psychologist, thought we were students of medicine, and not of psychology, only realizing this at the very end of the interview, which seemingly caused her to relax more. Perhaps she would have responded differently, had she known we were psychology students. Others expressed the fact that whether we had taken psychedelics ourselves or not would influence the way they responded to us. Our positioning, thus, seemed to play an important role in the interview situation in itself, affecting how and what participants chose to relate to us in their accounts which, in turn, might have affected our results.

The dominant white Western perspective

In relation to our social positionings we find it important to disclose that we are white, male, cisgender, non-disabled persons living and studying in a rich Western country. As mentioned at the beginning of this thesis, many are concerned with the dominance of white, Western perspectives and lack of BIPOC perspectives and influence in the psychedelic field (Buchanan, 2020; Fotiou, 2020; George et al., 2019). Psychedelic science, it is argued, owes a lot of its success to the traditional Indigenous healing practices and can still be contributed greatly by Indigenous knowledge traditions, which often goes unacknowledged (Fotiou, 2020; George et al., 2019). Therefore, it is arguably problematic that, apart from the acknowledgement of the indigenous history with psychedelics in our introduction, we have hardly included any literature in this thesis representing Indigenous knowledge on psychedelics. As a result, we risk contributing to the reproduction of the idea that these perspectives are not valuable. Further, psychedelic assisted therapy is often ill-equipped to addressing sensitive topics related to race, leading to cases of harm among people of color (Buchanan, 2020), and there is unequal research participation and treatment among minority ethnic groups (George et al., 2019). In this thesis, we have not focused specifically on issues related to marginalization, which could have created important nuances – particularly considering the fact that one participant, Manu, was from an ethnic minority group. For example, we could have made our theoretical model of integration more sensitive to issues related to inequality, and included specific questions related to cultural differences and marginalization in addition to our more

general questions related to challenges and reactions from people's surroundings. This would also make our model more applicable in future studies investigating more ethnically and culturally heterogenous participant samples.

Chapter 5: Further perspectives

We end this thesis by considering our results in relation to further perspectives on possible developments within the psychedelic field. With the increasing interest in psychedelics in science and society, the relevance of understanding how people are affected by experiences with these substances in the long term grows ever greater. With much effort being put into investigating the substances and their neurobiological effects themselves in the psychedelic research field, we hope to have provided some value by showing how personal, social, and contextual factors, too, can play important parts in how people are affected by psilocybin experiences. Arguably, these should be taken into consideration when investigating the factors that determine what people get out of psychedelic treatment, to which end the concept of integration seems to be useful, as it describes a wide range of interrelated phenomena. In future studies, therefore, an obvious avenue would be to investigate clinical populations with a similar attention to integration in order to assess what factors in change processes are important here, and how they compare with the processes in healthy populations. If similar processes are found, a treatment paradigm could then be built based on this model and tested on a larger scale. Further, as more attention is brought to the seeming importance of personal, social, and contextual factors in psychedelic change processes, perhaps it could be argued that the terminology of "pharmacological" vs. "non-pharmacological" in psychedelic treatment should be exchanged with terms that do not place the pharmacological aspect of treatment as the centerpiece, but rather juxtapose it with aspects such as therapeutic support and personal action, as is already implicit in the term "psychedelic-*assisted* psychotherapy".

Qualitative studies similar to ours could also prove important for nuancing the public view of psychedelic treatments, which may be important for how the field progresses as well. From June 1st this year, PAP with psilocybin and MDMA for treatment resistant major depressive disorder and posttraumatic stress disorder was down-scheduled in Australia, allowing for the prescription of PAP by approved psychiatrists. This decision raised concerns with the leading Australian psychedelic researchers who had not been consulted on the matter. In an open letter, they point out a number of issues with what they see as a hurried decision based on pressures from lobbying and the public, and not substantial research on the long-term safety and efficacy profile (Rossell et al., 2023). These issues include the lack of universally accepted protocols for PAP in the treatment of these disorders despite knowledge that the psychotherapeutic model matters, as well as a lack of

therapist training programs, a lack of authorization-guidelines, and a lack of safety manuals and procedures in the case of adverse events, which, in their view, are present and understudied. This case arguably indicates that, as the field moves forward, public interest and legislation risks out-pacing knowledge of best practice, which could result in improper treatment and in the worst-case harm and legislative consequences. In our view, qualitative long-term follow-up studies can aid the field by providing detailed descriptions of what circumstances matter the most to people in their change processes, as well as what unforeseen challenges they encounter, which can inform the development of PAP-models and spur on more detailed inquiries into unexplored effects of psychedelic experiences in the long term. Although our study has focused on a non-clinical population, we would argue that it demonstrates the applicability of a qualitative approach to this end, and hope that other qualitative studies will contribute to this project.

As it happens, indications of a rising interest in qualitative psychedelic studies are even apparent within the neurobiological paradigm of psychedelic research, which this thesis was a response to. In a very recent review by the head of NRU describing how behavioral, biochemical, neuroimaging, and electrophysiological data support the idea that sustained psychological effects from single doses of psychedelics are based on neural plasticity, Knudsen (2023) concluded with the need for large-scale, placebo-controlled randomized trials of with assessments of long-term effects over at least 12 months, which should include "(…) careful evaluation of the qualitative aspects of psychedelic experiences (…)" (p.148) (alongside a long list of biological and neuropharmacological measures). Although her budding qualitative interest seems to be primarily related to the acute experience and its biological underpinnings, we welcome this invitation and would argue that investigating the connection between psychedelic-induced neural plasticity and efficacy of aspects of integration processes in creating change could be an interesting intersection between these different approaches, giving important information regarding how psychedelics function. With this thesis, however, we hope to provide, if not an argument for the importance of investigating all of the qualitative aspects of people's lives, their individual engagement, and the contexts they are imbedded in, then at least one more opportunity for this bud of qualitative interest to start blooming in the field of psychedelic research.

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