

Ayahuasca in the treatment of bipolar disorder with psychotic features

Mika Turkia

mika.turkia@alumni.helsinki.fi, psychedelicttherapy.fi, March 8, 2023

Abstract

Ayahuasca is a plant-based brew of indigenous Amazonian origin. It has psychedelic, anti-inflammatory, neuroprotective, cytotoxic, and anti-parasitic effects, which are primarily due to monoamine oxidase inhibitors (MAOIs) and N,N-dimethyltryptamine (DMT). This retrospective case study describes the case of a woman in her late thirties with complex trauma due to severe, years-long sexual abuse in early childhood, resulting in a decades-long chronic condition involving suicidality. She was diagnosed with bipolar disorder and borderline personality disorder, but refused to accept either of them. She presented with delusional parasitosis and deep dissociation. Despite being severely psychotic in private, she appeared high-functioning in public, hiding most of her symptoms.

In her mid-thirties, she participated in an ayahuasca ceremony in a legal setting. It resolved her suicidality, eliminated her social isolation, and reduced her shame related to her early trauma. Nine more ceremonies alleviated her distress further. Her abuser also participated in an ayahuasca ceremony and confirmed her memories of childhood abuse.

The first interview was conducted 1.5 years after her first ceremony, and a follow-up interview 2.5 years later. She had experienced sixteen additional ceremonies, recognized the validity of her bipolar disorder diagnosis, and believed her early trauma to be its sole cause. Her core trauma remained partially unresolved, but her dissociative symptoms continued to decrease. She had observed several other instances of psychosis and bipolar disorder in which ayahuasca had resulted in positive effects. This case study contributes to a better understanding of the use of ayahuasca in bipolar disorder and severe traumatization. It also reviews the current state-of-the-art in the treatment of bipolar disorder using low-dose ayahuasca, and a case in which bipolar disorder was resolved with LSD.

Keywords: ayahuasca, psychedelics, psychedelic therapy, childhood sexual abuse, complex post-traumatic stress disorder, bipolar disorder, psychosis, delusional parasitosis, LSD

Introduction

Documented examples of the treatment of psychoses and bipolar disorder with psychedelics are currently rare. A recent study by the author featured a teenager with complex post-traumatic stress disorder (C-PTSD), genetic predisposition to schizophrenia, psychosis triggered by cannabis use, and acute suicidality (Turkia, 2022b). He successfully resolved acute suicidality with a single unsupervised session with 100–200 μg of LSD carried out alone at home. Subsequently, he resolved his C-PTSD with five more similar LSD sessions, and a few months of almost daily low-dose (psycholytic) N,N-dimethyltryptamine (DMT) sessions. While some residual auditory hallucinations remained, the teenager interpreted them as representations of unprocessed adverse childhood experiences (ACEs), and considered the information contained in these representations helpful in recognizing the remaining unprocessed material. After one year of such unsupervised self-treatment, he had acquired the capability to study and work.

The article also featured a general discussion about the role of self-treatment and harm reduction policies, the safety of LSD, a proposed mechanism of action of psychedelics in healing C-PTSD, comparisons of various models of psychedelic therapy, and examples of successful treatment of severely psychotic children with LSD and psilocybin in the 1960s and 1970s (Turkia, 2022b).

According to the article, the primary 'mechanism of action' of psychedelic therapy was to revive or bring back to life repressed or dissociated traumatic events. These events were not only 'remembered' as cognitive memories but relived as embodied experiences, with their original, associated physical feelings (another interpretation could be that psychedelics acted as 'anti-dissociatives'). When these unresolved traumas originated at a very young age, they could present themselves as psychotic symptoms. A psychotic state could be understood as a partial regression into the conceptual framework of the age of the original trauma. The conceptual framework of that age could consist of undeveloped and vague concepts, including vague concepts of time and causality, unsuitable for navigating the adult world.

It was also proposed that distorted, psychotic ideas could simply result from learning the features of one's childhood environment, which was too different from the other environments in which one later tried to apply these learned models. These 'biased' models could not produce reliable predictions, i.e., could not enable correct reasoning about the behaviors of other people and the features of one's current living environment. If the magnitude of these prediction

errors was high, the condition of a person could have been deemed psychotic, whereas errors of lesser magnitude could have been labeled personality disorders or, say, 'being a difficult person'.

The current case bears similarities to the above case featuring the teenager, but the outcome was achieved with ayahuasca, an Amazonian psychedelic plant-based brew, administered in a group setting (Frecka et al., 2016; Hamill et al., 2019; Palhano-Fontes et al., 2018; dos Santos et al., 2017, 2016; Wolff, 2020). The effects of ayahuasca are considered to be mostly due to monoamine oxidase inhibitors (MAOIs) harmine (originally known as 'telepathine'), harmaline, tetrahydroharmine, and other harmala alkaloids, as well as DMT (Durante et al., 2021; Kaasik et al., 2020). The effects of ayahuasca are not limited to psychedelic effects but include, for example, anti-inflammatory, neuroprotective, cytotoxic, and anti-parasitic effects (Flanagan and Nichols, 2018; Katchborian-Neto et al., 2022, 2020; Santos et al., 2022; Simão et al., 2020). In people with dissociative disorders, it appears to exert an 'anti-dissociative' effect.

Concerning the physiological safety of ayahuasca, coadministration with SSRIs, some psychedelic tryptamines (5-MeO-xxT, such as 5-MeO-DMT (Reckweg et al., 2022)), amphetamines, MDMA (Sottile and Vida, 2022), cocaine (Simon and Kreek, 2016), tramadol, and dextromethorphan (DXM) is considered dangerous (Tripsit.me, 2022). Coadministration with alcohol and methoxetamine (MXE) is considered unsafe (Tripsit.me, 2022). Caution is advised in combination with cannabis, mescaline, substituted amphetamines (DOx), substituted phenethylamines (NBOM), psychedelic phenethylamines (2C-x, 2C-T-x), ketamine, and opioids (Tripsit.me, 2022). Coadministration of DMT with lithium may cause seizures (Nayak et al., 2021).

In practice, people using SSRIs have attended ayahuasca ceremonies without adverse consequences. Ruffell noted that there wasn't a single known case of serotonin toxicity recorded in the literature (Ruffell, 2022). Recently, Malcolm and Thomas have reviewed the serotonin toxicity of serotonergic psychedelics in detail (Malcolm and Thomas, 2021). They noted that little information is available on the circumstances of severe toxicities, but ayahuasca by itself is unlikely to pose a high risk of serotonin toxicity, and its propensity to induce vomiting may also limit the ability to consume large quantities. Also, psilocybin and LSD appear to be relatively safe in combination with ayahuasca. Henríquez-Hernández et al. recently discussed general aspects of toxicology of psychedelics (Henríquez-Hernández et al., 2023).

A systematic review by dos Santos et al. found three case series concerning members of the Brazilian syncretic ayahuasca church União do Vegetal (UDV) and two case reports describing psychotic episodes associated with ayahuasca intake (dos Santos et al., 2017). The overall incidence of psychotic episodes in the UDV context was estimated to be less than 0.1% (0.052–0.096%), and cannabis use could not be excluded as a contributing factor. They noted that the incidence of psychotic episodes appeared rare in both ritual and recreational/uncontrolled settings. An European case series of presentations to emergency departments dealing with acute recreational drug and novel psychoactive substance toxicity (n=5529) did not mention ayahuasca (Vallersnes et al., 2016).

The use of ayahuasca has spread internationally in the 2000s (Labate and Cavnar, 2013; Labate and Jungaberle, 2011). It is typically used in ritualized group settings, i.e., 'ceremonies', in which trained psychedelic guides direct participants' experiences by singing (Beyer, 2009; de Mori, 2009; Turkia, 2022b). In Western societies, ceremonies typically happen overnight during weekends, beginning on Friday evening and ending on Sunday morning. Participants usually present with treatment-resistant psychiatric conditions such as treatment-resistant depression, post-traumatic stress disorder (PTSD), and complex post-traumatic stress disorder (C-PTSD), and they have exhausted other, official options for treatment. Usually, people with psychotic and bipolar conditions are excluded, primarily due to a lack of sufficient resources for follow-up, and increased legal risks for the organizers. In the present case, however, the psychotic patient attended tens of ceremonies without complications.

In many cases, ayahuasca ceremonies organized elsewhere still follow various Amazonian indigenous traditions, most of which remain either sparsely documented or undocumented in the scientific literature. One documented example of such a tradition is the Shipibo tradition (Gonzalez et al., 2021), although in Europe, ceremonies adhering to this tradition have appeared relatively rare.

O'Shaughnessy and Berlowitz studied 'plant diet' practices of Peruvian Amazonian medicine (O'Shaughnessy and Berlowitz, 2021). Graham et al. investigated the phenomenology of listening to 'icaros', or medicine songs, during an ayahuasca ceremony (Graham et al., 2022). Callon et al. discussed ayahuasca ceremony leaders' perspectives on preparation and integration practices for participants (Callon et al., 2021). Sapoznikow et al. noted that cross-cultural ceremonial use may have advantages relative to psychonautic (individual) use (Sapoznikow et al., 2019). Kaasik described ayahuasca ceremony culture in Estonia (Kaasik and Kreegipuu, 2020), and analyzed the chemical composition of traditional and analog ayahuasca (Kaasik et al., 2020). Byrska et al. noted that the chemical composition of ayahuasca seized in Poland varied (Byrska et al., 2022). Pontual et al. studied the importance of non-pharmacological factors such as the setting to induce or promote mystical experiences or challenging experiences among ayahuasca users in neoshamanic and syncretic church contexts in the Netherlands and Brazil (de Deus Pontual et al., 2022).

Dobkin de Rios et al. described how the União do Vegetal (UDV), a Brazilian syncretic church, was granted a permission for the ritual and religious use of ayahuasca in the US Supreme Court (Dobkin de Rios and Rumrill, 2008).

Their book also discusses the Santo Daime church of Brazil, the traditional use of ayahuasca by indigenous peoples, 'neoshamanism', and the globalization of ayahuasca. Groisman et al. described the corresponding legal process concerning the Santo Daime church in the US Supreme Court (Groisman and Dobkin de Rios, 2007). Groisman et al. analyzed the healing, neurophenomenological, and therapeutic aspects of the ritual and religious use of ayahuasca in the Santo Daime church (Groisman and Sell, 1996).

A book edited by Roberts discussed ceremonial use of psychedelics more generally (Roberts, 2020). Alcantarilla et al. presented a case of psychosis following the use of ayahuasca (Alcantarilla et al., 2022); Neyra-Ontaneda presented another case (Neyra-Ontaneda, 2017). Williams et al. discussed indigenous ontologies (Williams et al., 2022). Devenot et al. discussed an open source alternative to psychedelic capitalism (Devenot et al., 2022a). Fotiou warned against idealizing South American indigenous tribes (Fotiou, 2016). Somé discussed the treatment of first psychosis in an indigenous African context, emphasizing the importance of rituals (Somé, 1997).

James et al. provided a narrative review about the current status of medical ayahuasca research (James et al., 2022). A recent handbook of medical hallucinogens edited by Grob et al. covered a wide range of aspects related to psychedelic therapy (Grob and Grigsby, 2021). Devenot et al. examined how therapeutic frameworks interact with the psychedelic substance in ways that can rapidly reshape participants' identity and sense of self (Devenot et al., 2022b). Friesen discussed historical entanglements and contemporary contrasts between psychosis research and psychedelic therapy research (Friesen, 2022). Nemu discussed biases and prejudices in the academic study of ayahuasca (Nemu, 2019). Maia et al. recently reviewed ayahuasca's therapeutic potential (Maia et al., 2023). Perkins et al. presented the results of a naturalistic longitudinal study concerning changes in mental health, wellbeing, and personality following ayahuasca consumption, concluding that ayahuasca consumption in naïve participants may precipitate wide-ranging improvements in mental health, relationships, personality structure, and alcohol use (Perkins et al., 2022). Perkins et al. also discussed psychotherapeutic and neurobiological processes associated with ayahuasca (Perkins et al., 2023). Bouso et al. reported survey results on adverse effects (Bouso et al., 2022). Mastinu et al. reviewed the ethnobotanical uses of the best-known psychedelic plants and the pharmacological mechanisms of the main active ingredients they contained (Mastinu et al., 2023). The pharmacopoeia of the Huni Kuin tribe of Brazil featured over a hundred plant medicines (Muru and Quinet, 2019).

Ona et al. described the essential features and benefits of traditional practices and the importance of incorporating them into a 'Global Mental Health' movement (Ona et al., 2021). Group therapy and communal aspects were discussed by Hartogsohn (Hartogsohn, 2021, 2022), Gonzalez et al. (Gonzalez et al., 2021), and Meckel Fischer (Meckel Fischer, 2015; Sessa and Meckel Fischer, 2015). Oehen and Gasser described the treatment of patients with C-PTSD in Switzerland since 2014 (Oehen and Gasser, 2022). General aspects of the use of psychedelics in psychotherapy have been discussed in a recent book edited by Read et al. (Read and Papaspyrou, 2021). Danforth discussed focusing-oriented psychotherapy as a supplement to preparation for psychedelic therapy (Danforth, 2009). Dolezal et al. suggested that shame-sensitive practice is essential for the trauma-informed approach (Dolezal, 2022; Dolezal and Gibson, 2022).

Bosch et al. reviewed psychedelics in the treatment of bipolar depression, commenting that the integration of these promising and fascinating substances into contemporary biomedicine seems feasible and even desirable (Bosch et al., 2022). Szmulewicz et al. reported a case of mania after ayahuasca consumption in a man with bipolar disorder (Szmulewicz et al., 2015); Oliveira et al. reported a similar case (Oliveira et al., 2018). Wrobel et al. surveyed childhood trauma and depressive symptoms in bipolar disorder, noting that feelings of worthlessness emerged as a key symptom among participants with—but not without—a history of childhood trauma (Wrobel et al., 2023). Janikian investigated the potential and risks of psychedelics in bipolar disorder (Janikian, 2020). Blackwell presented 'bipolar breathwork' method: an adaptation of holotropic breathwork developed for bipolar patients (Blackwell, 2011; Bray, 2018; Grof, 2010). Young et al. discussed the neurobiology of bipolar disorder (Young and Juruena, 2020). Healy reviewed the history of bipolar disorder (Healy, 2008). A preprint by McCutcheon et al. presented a new, receptor affinity-based classification system for antipsychotic medication (McCutcheon et al., 2023).

An article by Fusar-Poli et al., co-written by experts by experience and academics, reviewed the lived experience of psychosis using a bottom-up method (deriving a theory from ethnographic material) rather than a top-down method (trying to overlay a theory onto data) (Fusar-Poli et al., 2022). Utilizing the same method, Estradé et al. reviewed the lived experiences of family members and carers of people with psychosis (Estradé et al., 2023). Sips also discussed the phenomenology and the lived experience of psychosis (Sips, 2022). A book edited by Moskowitz et al. discussed the relationship between psychosis, trauma, and dissociation (Moskowitz et al., 2019). A book edited by Dorahy et al. brought together current thinking and conceptualizations on dissociation and the dissociative disorders (Dorahy et al., 2023). A book edited by Vermetten et al. discussed the neurobiology and treatment of traumatic dissociation (Vermetten et al., 2007); Vermetten et al. also studied MDMA-assisted psychotherapy for PTSD (Vermetten and Yehuda, 2019). Beutler et al. reviewed the knowledge on the relationship between trauma-related dissociation and the autonomic nervous system (Beutler et al., 2022). Trauma and dissociation have also been discussed by van der Hart (van der Hart, 2021). Ratcliffe discussed hallucinations, trauma, and trust (Ratcliffe, 2017). A book edited by Woods et al. discussed voices in psychosis from an interdisciplinary perspective (Woods et al., 2022). A book by Lanius et al. discussed the impact of early life trauma on health and disease, considering it to be a 'hidden epidemic'

(Lanius et al., 2010). Ritunnano et al. noted that delusions have and give meaning (Ritunnano and Bortolotti, 2021).

Bourgeois et al. noted that sexually abused youth were ten times more at risk of receiving a diagnosis of psychotic disorder than youth from the general population (Bourgeois et al., 2018). Rhodes et al. discussed the relationship between psychosis and trauma, including the relationship between psychosis and child sexual abuse (Rhodes, 2022; Rhodes et al., 2018); however, the cases appeared to differ significantly from the present case. McLaren described methods for (self-)treatment of the consequences of childhood sexual abuse using the 'spiritual' terminology (McLaren, 1997). Maté discussed 'spiritual' roots of trauma, considering that the cause of any mental disorder was (transgenerational) trauma (Maté, 2018, 2019). Youngman et al. discussed modeling complex adaptive systems in the humanities (Youngman and Hadzikadic, 2014); in this context, Turkia previously presented a computational model of emotions (Turkia, 2009). Dourron et al. presented a novel theory, the self-entropic broadening theory, examining how psychedelics could be therapeutic while mimicking symptoms of psychosis (Dourron et al., 2022).

Kettner et al. noted that intersubjective experience during psychedelic group sessions predicted enduring changes in psychological wellbeing and social connectedness (Kettner et al., 2021). Brennan et al. presented a qualitative exploration of relational ethical challenges and practices in psychedelic healing (Brennan et al., 2021). Aixalà wrote about post-session psychedelic integration in detail (Aixalà, 2022). Hendricks proposed awe as a putative mechanism of action (Hendricks, 2018). Scull noted that 'the limitations of the psychiatric enterprise to date rest in part on the depths of our ignorance about the etiology of mental disturbances' (Scull, 2022); the present case study also aims at enlightening etiological aspects.

Schwartz described the Internal Family Systems (IFS) therapy approach (Schwartz, 2021; Schwartz and Sweezy, 2020). Yugler discussed psychedelics in the context of IFS (Yugler, 2021), noting that 'parts' (subpersonalities, alters) corresponded to 'entities', 'beings', or 'spirits' in the psychedelic context. Hallucinatory voices originated from the parts/entities. In addition to parts, there was also an unchanging, boundless source of energy called 'the Self' whose energy was characterized by compassion, curiosity, calm, clarity, courage, connectedness, confidence, and creativity (8 C's). In the end, any therapeutic outcome was due to the energy of the Self, not to a therapist or substance. Everyone, regardless of the severity of their past trauma, had the ability to heal. Yugler also described the concepts of 'unburdening', 'polarization', and 'blending'. IFS was a method or 'toolkit' for 'navigating' any experiences, including psychedelic ones.

Wolynn reviewed current research into the epigenetic inheritance of trauma, i.e., the evidence on the genetic transgenerational inheritance of trauma (Wolynn, 2016). Research on mice indicated that trauma triggers could be epigenetically inherited by the offspring (Dias and Ressler, 2013; Morin et al., 2021). Levine, the inventor of the somatic experiencing method (Kuhfuß et al., 2021; Winblad et al., 2018), provided an introductory overview of the role of memory in trauma, including the long history of the role of the phylogenetically more ancient structures of the brain in trauma (Levine, 2015).

The low-dose maintenance treatment method of Mudge

Mudge has developed a method for the treatment of bipolar disorder with ayahuasca, and has utilized it himself for his own bipolar disorder for years (Janikian, 2020; Mudge, 2016, 2022; Saiardi and Mudge, 2018). Since his teenage years, describing himself as a 'compliant patient in the mainstream psychiatry', he unsuccessfully tried seventeen different pharmaceutical medications. He said that their adverse effects were downplayed or ignored. In his youth, SSRIs had triggered mania which was ignored by his psychiatrist who doubled of the dose. This led to full-blown manic episode with psychotic features. He was hospitalized and injected with antipsychotics. In the following years, he was administered seventeen different medications without results. Eventually, after experiencing 'massive' adverse effects, he quit.

After finding ayahuasca around 2006, he had not used pharmaceutical drugs (Buller et al., 2021). Initially, he used it with psychedelic doses in ceremonies a few months apart. However, the effect did not last for months; therefore, he invented a more regular low-dose self-treatment practice. He initiated a research program, and as a part of his PhD studies, he tested various ayahuasca preparations on himself.

All in all, Mudge has 15 years of experience on the use of ayahuasca and on brewing it himself in various formulations, using different varieties of the ayahuasca vine, resulting in different ratios of the MAOIs harmine, harmaline, and tetrahydroharmine. Different ratios produced different effects: stimulating, sedative, or balancing. He was currently analyzing 50 different varieties in a laboratory. Mudge had also received ceremony facilitator training in the contexts of Santo Daime, and various indigenous traditions including Humi Kuin (Muru and Quinet, 2019), Shipibo (Gonzalez et al., 2021), and Yawanawá (Oikarinen, 2020; Pérez-Gil, 2001). He was planning on creating a manual for guiding ceremonies for bipolar people.

The main risk was that in bipolar people, psychedelics could induce mania, even psychotic mania. However, a few cases did not imply that all bipolar people should be excluded from the use of psychedelics (an overgeneralization). Also, adverse effects had often been exaggerated; some were due to taking ayahuasca four nights in a row and not sleeping, for example (Buller et al., 2021). Mudge stated that the exclusion of bipolar people was not only illogical but also dangerous because bipolar people were highly suicidal. The 'do no harm' principle was applied illogically.

By treating bipolar disorder as a contraindication, patients were given a message: 'We're just going to ignore you', depriving them of hope.

Another consequence was that bipolar people were 'doing it anyway, in a messy way', for example, by lying in the screening for ceremonies and ending up in a wrong kind of ceremony for them, with a variety of ayahuasca which was not designed to have a balancing effect but, say, stimulating. Therefore, bipolar people should be included but their special needs taken into account. In addition to bipolar people, the exclusion issue also applied to schizophrenics. Mudge stated that 'doing nothing did not equal to doing no harm'; in effect, it implied avoidance of responsibility.

The fact that ethics committee had prevented Mudge from offering his medication to suicidal people in need, had led him to 'question the whole concept of ethics as defined by an institutional committee of experts, as opposed to peer ethics based on compassion'. Mudge did not see any logical, ethical reason for bipolar people not being allowed to help each other out. Also, who had the right to decide what risks they could take? Avoiding suicidality was more important than preventing mania. According to Mudge, no-one had the right to say they they could not try a possibly life-saving medicine. He added that 'psychedelics experts had taken on this patronizing attitude from psychiatrists'. Due to mainstreaming of psychedelics, there was no longer need to be overly cautious about appearances; instead, it was time to be more brave.

Mudge had been deeply involved with the Brazilian syncretic church Santo Daimé (Hartogsohn, 2021), as well as with several indigenous tribes of the Amazonian area. He described himself as 'post-bipolar', mentioning that developing his method was complicated and challenging, but it had been 'incredibly beneficial' for him (Janikian et al., 2021). He concluded that due to its short binding time to 5-HT_{2A} receptor, DMT did not induce mania in people with bipolar disorder, but instead acted as a mood enhancer/stabilizer. Tetrahydroharmine, in turn, provided a SSRI-like effect.

Mudge commented that he went 'seriously manic' on LSD or mescaline, and 'borderline manic in a funny way' on psilocybin (Buller et al., 2021). With MDMA, he 'felt terrible afterwards'; ketamine appeared slightly better. With ayahuasca, it appeared that the balancing effect was due to the MAOIs; subsequently, he could 'get the psychedelic benefits in a balanced context'. Through ayahuasca, he had learned to recognize when he was about to escalate into mania, and could then stop the process in time. In other words, he had less 'self-denial'. He had also become more compassionate or aware of the adverse social consequences of manic episodes, i.e. harm to others close him; this motivated him to stop things that escalated mania. The increasing self-compassion, it had also reduced self-destructive behaviors and suicidality.

In summary, self-awareness was the key. The irony was that it was the opposite of numbing oneself with pharmaceutical drugs. Numbing prevented access to trauma: 'the reason why bipolar people got depressed in the first place'. Interestingly, he commented that there was 'an epidemic of sexual trauma', particularly affecting women, and there was a large statistical correlation between sexual trauma and bipolar disorder. Mudge had a friend who had previously been given 65 different pharmaceutical drugs and 50 applications of electroconvulsive therapy without result. In the process, her sexual trauma had never been addressed. The trauma was eventually treated by a Shipibo woman in an ayahuasca ceremony. Currently, she was 'getting great results with ayahuasca'. Thus, psychosocial healing could happen with psychedelics that basically eliminated the underlying triggers. Diet and lifestyle (sleep habit) changes had also been resulted from the use of ayahuasca.

Based on qualitative interview data about 75 bipolar people who had consumed ayahuasca, Mudge acknowledged numerous cases of bipolar people becoming manic, but his detailed analysis indicated that many of these were false negative results, and that the majority of bipolar people had therapeutically positive experiences with ayahuasca (Mudge, 2022). Adverse events were due to either unsuitable mindsets and/or environments, or pharmaceutical differences resulting from differences in preparation methods.

Mudge concluded that the crucial determining factor for people with bipolar disorder was the cooking technique, because cooking variations affected the ratios of the four major psychoactive ingredients. Also, it was essential that ayahuasca did not ferment, in order to avoid alcohol forming in it (Janikian et al., 2021). Alcohol triggered depressive episodes (Buller et al., 2021). With these enhancements, adverse effects could be minimized or avoided.

It was also critical to avoid using any other psychoactive agents at the same time, particularly cannabis/tetrahydrocannabinol (THC), tobacco (rapé) (de Mori, 2020; Narby and Pizuri, 2021), and even caffeine, chocolate, sports supplements, and incense. THC could overstimulate the dopaminergic system and induce paranoia and psychoses. The concurrent use of MAOIs amplified this effect of THC. This combination had been linked to four incidents of violence or homicide. Regardless, although a large part of the population attending ceremonies consume cannabis regularly, and many tribes and syncretic churches consume cannabis in ceremonies, such incidents are very rare and may only concern people with bipolar disorder.

Mudge's mother was a professor of neurobiology who specialized in bipolar disorder after her son was diagnosed with it. She found that mood swings corresponded to modulations in the frequency of the phosphoinositide turnover cycle in cortical neurons; as the cyclic process speeded up and slowed down, mood swung up and down (Saiardi and Mudge, 2018). Lithium and fluoxetine regulated the rate of phosphoinositide synthesis in neurons. 5-HT_{2A} receptor appeared

to stimulate phosphoinositide hydrolysis (da Costa et al., 2020; Rabin et al., 2002). Ayahuasca likely also contained a counteracting component and thus modulated phosphoinositide synthesis in the same way that the combination of lithium and fluoxetine did, thus resulting in the previously mentioned mood-enhancing and stabilizing effect.

Mudge mentioned that there was currently an unfounded 'community belief' functioning as a 'cultural taboo' that psychedelics and bipolar people were contraindicated. Mudge mentioned that due to bureaucracy and 'ethics approval' related obstacles, conducting clinical trials had proved impossible for him, and he had only been able to produce pre-clinical studies. In the meantime, five of his 75 interviewees had committed suicide. Mudge was 'not willing to wait fifteen years' before people could be treated. In terms of academia/community, Mudge felt having 'struggled against taboos, getting mixed responses'. Some conferences had appeared supportive, others 'just hadn't wanted to know': the subject was 'too controversial'. Mudge described that earlier, a professor of psychiatry, after reading his abstract, had commented: 'So, a bipolar person thinks that he's worked out a treatment for bipolar disorder by himself, and he thinks it's ayahuasca. Well, that sounds like a grandiose delusion, doesn't it?' Two years later, after hearing Mudge's presentation, the professor acknowledged Mudge's work as 'very progressive'.

Young, a leading bipolar disorder expert in the UK (Young and Juruena, 2020), had recently become involved with ayahuasca research (Ruffell et al., 2020, 2021). There was also a project by Standish aimed at getting a standardized ayahuasca product approved by the FDA, produced from ayahuasca wine grown in Hawaii (Standish, 2019); however, according to Mudge, their current recipe was likely unsuitable for bipolar disorder. There was also initial interest and 'unofficial encouragement' in the subject but no resources at the Multidisciplinary Association for Psychedelic Studies (MAPS). Yet, no individual or institution, outside the PhD supervisory panel, had yet officially backed Mudge's study. Mudge considered the current mainstream research practices 'playing a reductionist game'.

About the idea of using a synthetic product containing only DMT, or DMT and harmine, Mudge commented that a product without harmaline, tetrahydroharmine, and other components would be unlikely to provide the required balancing effect. Also, the ritualistic-ceremonial concept was central to him. However, acquiring a specific ratio of components would be easier. All in all, as a prescription option, even such a 'substandard' mass-producible synthetic product would be a significant improvement over the current situation, i.e., the use of antipsychotics. Also, initially, Mudge himself had only been able to acquire products that he now considered substandard.

The maintenance protocol consisted of 'microceremonies': taking a low dose of ayahuasca before going to sleep, in a self-organized, uninterrupted meditation ritual, held approximately once every one to two weeks, according to the need, i.e., depending on the intensity of depression. After such a ritual, the 'afterglow', or calming and uplifting effect, usually lasted for a week or two. With regard to dosing, the dose required for a balancing effect was significantly lower than that required for psychedelic effects. Mudge recommended taking 1/8 of the 'standard' dose (approximately a spoonful). According to Mudge, this maintenance treatment would likely need to be ongoing.

With regard to the indigenous roots of ayahuasca, Mudge pointed to the extreme poverty of the tribes, the lack of even clean drinking water, their cynicism about biopiracy by commercial companies (as happened with psilocybin in Mexico), and 'active government policies of genocide against indigenous populations' in some countries. On the other hand, bipolar people were also 'desperate and life-threatened', but Mudge 'did not see why there couldn't be a win-win situation if it was just done right, with ethics'.

There were a lot of controversial issues: a synthetic product would essentially be biopiracy, unless a large part of the profits were given to the indigenous people. There was also a conflict between for-profit companies possibly getting the medicine to market faster and universities possibly providing a non-profit product a decade or so later. An advantage of for-profit companies was that they didn't care about academic reputation or taboos. Over USD 200 billion was spent annually in the US on the treatment of bipolar disorder, the vast majority of which went to pharmaceutical companies and psychiatrists. Mudge commented that there were 'a lot of people profiting from my people's illness'.

Psychedelics startups were slightly separated from traditional pharmaceutical businesses, and, as an example, a hedge fund manager whose wife was bipolar had mentioned that maybe he could 'help out'. Mudge proposed an alternative model to the university-led and business-led models: founding a new church that would take into account the specific needs of bipolar people, which the Santo Daime church had not accommodated. The day before, he had received three calls from three suicidal friends.

Aspects of the present case

The dosing strategy presented by Mudge was non-psychedelic, intended for balancing the mood without accessing traumatic memories, and utilized without support at home in regular, self-organized 'microceremonies', depending on subjectively perceived need. This dosing might be called sub-psycholeptic, somewhere between 'microdosing' and 'psycholeptic' (Passie et al., 2022). The ayahuasca was made according to a special recipe developed for the treatment of bipolar disorder.

In contrast, in the present case, the dosing was psychedelic, intended for accessing the traumatic memories, and utilized in a group ceremony context. The ayahuasca ceremonies were 'neoshamanic', i.e., not strictly adhering to any specific traditional lineage of the Amazonian area. The patient always attended the same group, organized by

the same non-indigenous facilitator. In total, she participated in 26 ceremonies over the course of four years. There was one nine-month break between ceremonies, but on average, she attended a ceremony once every two months. The ayahuasca was always brewed by the same person but it was not specifically prepared for bipolar patients and would likely have been considered substandard by Mudge's standards. There was no maintenance treatment with ayahuasca between the ceremonies. The described ceremonies were arranged *in a legal setting*; further details are omitted for the purposes of anonymization.

Information was acquired from a 20-minute audio recording produced by the interviewee in 2019, and two semi-structured retrospective interviews with a total duration of approximately three hours conducted in 2020. Diagnoses and prescriptions were confirmed from medical record excerpts provided by the patient. In general, with the exception of the last two years, her contact with the psychiatric healthcare system had been sporadic and shallow. Thorough follow-up discussions and a review of all data were conducted in 2023.

The interviewee favored the term 'spiritual'. Pollan proposed 'egoistic' as the antonym of 'spiritual' (Pollan, 2018). In this presentation, the 'spiritual roots' of trauma roughly correspond to 'having to do with the loss of individual agency'. Similarly, the term 'awakening' refers to remembering trauma memories, or their re-emergence from the subconscious. Assumed to re-emerge in their original, age-specific form, such memories might appear incomprehensible.

One intention of this article is the facilitation of a shared conceptual framework, i.e., a preliminary fusion of several paradigms. Concepts were adopted from IFS (Schwartz and Sweezy, 2020), the object relations paradigm (Tähkä, 1993, 2006), the paradigm of psychosis as a 'spiritual awakening' (Blackwell, 2011; Grof, 1990), the Open Dialogue approach (Bergström et al., 2022; Mosse et al., 2023), and various indigenous ayahuasca traditions.

The present case description is not to be taken as a treatment guideline or a recommendation. Even though the described methods produced a feasible result for this person and in another case briefly reviewed in the discussion section, a degree of unpredictability lies in the nature of psychedelics, and the same approaches might not produce the same results in others with a different background and characteristics. The intention of the present study is to open new perspectives and lines of research on C-PTSD, psychosis, and bipolar disorder. The role of case studies in the context of the current paradigm, evidence-based medicine (EBM), has been discussed in the author's previous article (Turkia, 2022b).

Case description

At the time of the interview, the female interviewee was in her late thirties. Since early childhood, she had been exposed to continuing, severe sexual abuse by an older male sibling from the mother's previous marriage. The boy did not get along with his stepfather (the girl's father). The abuse had been frequent and ongoing for several years. As her life had felt unbearable, she had 'invented a wonderful world' which she 'blended with this one' in order to be able 'to breathe, to escape an unescapable situation, to gain some control', i.e., agency.

Her parents had been either unaware of or unresponsive to the abuse. She described that she loved her parents and wanted to make them happy by being happy herself. In her words, 'I understood that being happy was the greatest gift you could give to the people you love. So I took it as my duty. But I couldn't be happy if I lived in this world, so I built another one, or chose to see it, and chose to disappear from this world every time the door to that tiny room would close and I knew what was coming next. I chose to love my brother and to forget everything for years. Although I never actually forgot.'

In her memory, the abuse had been ongoing. She could not say exactly when it had began but based on certain events, she timed its beginning at the age of five or six. She described that a child did not have a memory of life being any other way; a part of the child's mind assumed that such a life was normal. Yet there was another part that had the information that such abuse was not ok. These two parts were in conflict. According to her, for these reasons, early trauma was difficult to handle or treat, and resided at the root of all psychiatric diagnoses.

Her relationship to her parents was 'good'. She was always 'a good girl', behaving nicely and not causing problems. She was 'perfect at school and with friends'. Occasionally, however, her behavior rapidly changed, and she became impulsive and physically violent, yet she returned to normalcy just as rapidly. Her parents did not recognize the ongoing abuse. All through her childhood, they dismissed her symptoms as a sign of her having been 'spoiled'. She believed that her parents 'had not wanted to see; if they really would have wanted to see, they would have seen'. She described that as her environment did not 'see her', her mind adopted the same mechanism and applied it to herself. The part that had not been acknowledged, ie. 'seen', was 'split' as a separate part. This process of 'splitting' led to problems.

I was abused in one room. When my parents returned home, I had to pretend to be happy and act like a good girl. At school, I appeared to be a perfect student. But at night, my life was completely different from the daytime. This created a huge internal conflict: a split. One cannot process severe trauma as it is happening. The internal split was actually a survival mechanism.

As a way to maintain a sense of control over her life, she secretly went to the roof of her house every day for years with the intention of jumping off, but she never followed through. Not jumping served as proof of her agency. She had no recollection of experiencing any pain. She had 'just wanted to die for no apparent reason'.

Dissociative symptoms started with intentional and conscious daydreaming as a form of escapism, but eventually transformed into an uncontrollable and unconscious automatic response. The child's visions of imaginary friends and mythical creatures, which were initially created to create a safe and controllable personal world, took on a life of their own and led to severe dissociation and derealization. She felt like she was not in the present, but she didn't know where she was.

She started to 'shift between worlds'. This shifting was accompanied by a physical sensation in her stomach. When she dissociated, she seemed to exist in multiple states of consciousness at the same time, partly in the present moment as if she were having an out-of-body experience, and partly in a dimension without time where she felt like she was simultaneously in the present, past, and future. There was also a dimension without causality, where her perceptions and actions seemed disconnected from each other.

She felt that everything she saw around her was 'created by her and also parts of her'. Boundaries between inner and outer dissolved into 'oneness'. When 'everything coexisted in timelessness', social interaction was difficult. Words could turn into units of time, or into 'souls who found their vibrational matches in their surroundings'. To 'bring herself back', she applied obsessive-compulsive methods: repetitive sounds and rituals, 'to keep her grounded before she got completely lost in the other worlds'.

When her parents finally found out about her habit, they closed all access to the rooftop. Subsequently, she began to feel the pain. She described that 'it broke my heart that I felt I was being taken even this control and freedom. Standing on the edge every day had been my secret. I felt like my choice of not jumping had made me a good girl, and after the lockdown, that choice was no longer mine'. Subsequently, she began sleepwalking, playing with knives and blades, cutting herself, and swallowing pharmaceuticals and detergents. Once she stood on a tramline when a tram was coming, but a neighbor pushed her away from the tracks. She remembered being pushed away, but not how she had ended up standing there.

Her suicidality originated from 'not being seen: likely the most common and influential trauma on the societal scale'. According to her, a lot of people actually did not want to live but remained largely unaware of this tendency. The lack of overt suicidality did not imply the absence of an unconscious wish to die. Such unwillingness was 'the biggest conflict one could have'. In an organism with a fundamental survival instinct, it sent a 'completely wrong signal'. A healthy individual fought to remain alive. An internally conflicted individual might have lost this objective.

In her case, the abuse had been 'more dramatic, and thus had more dramatic effects' but an 'unseen' hypersensitive child could become traumatized in the absence of dramatic events, through neglect alone. The underlying mechanism was the same: not being seen led to not being protected. It was interpreted as not being important enough to be protected, which led to low self-esteem and efforts to compensate by performing at school and work.

Every time a child is beaten by his parents, he gets the message that he is not worthy of not being beaten. If he goes the extra length, like many do, he will translate that into: I'm not worthy of being here, not worthy of being loved, not worthy of anything. I suffer, but it remains unseen and therefore unvalidated. The subconscious message is that I deserve that suffering because nobody saved me. The logical conclusion will naturally be that I'm not worthy of being here, and since being here brings only suffering, why should I be here?

At the age of thirteen, she developed 'a firm irrational belief' that she had terminal cancer. Yearly health checks made her 'hysterical', yet when the results came back completely normal, it only strengthened her belief that her illness had become 'so much worse'. She believed that she knew the exact type and location of the tumor and was trying to prepare her mother for her death, praying that her mother would stop loving her in order to not be hurt by her death. In retrospect, she described that the belief had 'no grounds in reality' and that 'the fact that I was perfectly healthy all those years was in no way connected in my head to the possibility that I didn't have cancer'.

For seven years, she was convinced that she would die in a month at the latest. In her diary, she organized her funeral and wrote letters to her mother, telling how happy she had been during her life, asking her mother not to be sad. Her heart was breaking because of the pain her mother would feel. She cried 'every night without exception from 10 p.m. to 3 or 4 a.m.' She cried 'so hard she couldn't breathe' and begged God to forgive her for dying and causing so much pain for her mother.

Despite these issues, she was 'an A-grade student all the way, winning first place every year at every contest or competition'. She said that 'absolutely no-one knew' about her suicidality. A few times, she attempted suicide because she 'could not stand to look at all the suffering that was waiting in my near future because of this imaginary cancer'.

Around the age of 20, the belief about having cancer was replaced with a different belief: delusional parasitosis. She became convinced that inside her body were unique species of bugs that were multiplying faster and faster because

her body was feeding them. She saw bugs all around her body: they were moving under the skin of her arms, on her head, and inside her brain. Describing her question as 'curiosity' unrelated to herself, she asked a medical doctor whether such a phenomenon was possible. The doctor 'explained to me why that couldn't happen, and I understood the explanation perfectly, but it made no difference: I knew the bugs were there. I was seeing and feeling them, and every time I looked in the mirror, I had to throw up due to disgust about the bugs'. She had always hated bugs and still did.

Psychosis could be due to trauma or extreme sensitivity. Her mind was hypersensitive, extremely flexible, and 'allowed to travel to very unusual places'. It 'lacked a kind of identity', i.e., *points of reference*. Hypersensitivity in itself was not a problem, but the inability to ground this hypersensitivity on anything ejected her 'into outer space'. Her mind 'flowed like a wave', yet when it attached to something, it became rigid 'in a nanosecond'. Everyday beliefs and opinions were formed gradually, but in psychosis, an impression instantly transformed into an unchangeable belief. The belief transformed into 'a black hole sucking everything in', and her whole life was subsequently subordinated to that belief.

For example, when I saw that bug near me, I immediately stated: 'It's from me'. I don't know why. It just happened. After that, any sensation confirmed that idea. If I felt itchy or saw a leaf moving in the wind, it was because of the bugs. My mind went to great lengths to fabricate stories to sustain the thought. I started creating.

Creating is the essence of psychosis, and its connection to the spiritual realm. We create our reality and manifest externally what is inside us. Psychosis is an extreme example of creating your own reality: you shape everything around you to fit your beliefs. My mind got very imaginative. Every thought, every move, the way clothes fit on me, and how I felt after eating supported that belief. If there was a wrinkle in my pants, it was because there was a bug under the fabric. If I felt better or worse after eating, it was because the bugs liked or disliked that food.

In retrospect, it is interesting to look back and see what a very playful mind was capable of inventing. It was like an improvisation exercise: how can I link everything in my world to a single belief? When you already understand that the belief was untrue, it appears funny.

It appeared that building a better world, or 'choosing to see it', was central to maintaining individual agency. Lysaker et al. noted that recovery from mental illness involved recapturing a sense of agency (Lysaker and Leonhardt, 2012). Creating also aligned with the concept of psychosis as a survival strategy in severe stress (Bergström et al., 2022; Seikkula, 2019), as well as with the concept of psychosis as a massive defense system (Fisher, 1970, 1997; Walsh and Grob, 2005).

After contemplating the parasite issue for two weeks, she ingested rat poison, assuming that it would kill the bugs but not her. However, as she began to feel ill, she realized she had poisoned herself and called the ambulance. At the hospital, she described the situation and was referred to a psychiatrist, who mentioned that she might have 'latent schizophrenia', adding that she would need to go through a formal evaluation to establish a formal diagnosis. She refused both the suggestion and the evaluation, commenting that she was 'refusing to have this illness'. The psychiatrist appeared to feel pity for her and commented that it was not her choice: no-one decided whether they had the condition or not. She repeated that she had the choice and that she 'decided to not have it or be that'. Regardless, she accepted the prescribed antipsychotic medication, and promised to start a therapy program but never did. The medications she took occasionally.

According to her, anti-psychotic medications 'did not necessarily make a person worse, although they could', but primarily they just 'completely hid the causes of the disease'. She considered them not medicines but anesthetics, which suppressed symptoms instead of addressing the root causes. The causes of disorders were not 'psychiatric' but 'spiritual', and needed to be handled as such.

In this context, 'psychiatric' referred to the view that psychosis was due to biological predispositions (genetic variance) leading to a 'failure state' that was to be corrected with medication to allow a return to a state of normalcy. 'Spiritual', in turn, referred to a holistic view according to which psychosis was due to the loss of individual agency: the loss of one's 'spirit', as a result of a process sometimes referred to as 'soul loss'. She was not against antipsychotic medication but considered it very important to mix both approaches and 'avoid the extremes'. She proposed a dialog between these approaches in order to improve the treatment of serious conditions.

In psychosis, the mind becomes rigid or calcified around an idea, losing all flexibility. It resembles a very tight muscle. A person blinded by such a rigid belief needs help. It is impossible to work with someone who has not slept for four nights. First, she needs to relax. Antipsychotics can function as 'muscle relaxants'. Afterwards, she can be approached by a doctor, a friend, or even herself. In my case, the person approaching was usually myself. Upon noticing that I had lost connection with myself, I temporarily used whatever was necessary to unblind me, after which I did whatever else was necessary. My work was very personal; no one taught me how to do it. It was step-by-step intuition. The essentiality

of inspecting one's beliefs is a general rule that applies to everyone: don't hold rigid beliefs or slip into fanaticism. Opinions can and should always be combined.

She began educating herself on 'what schizophrenia meant and how to make sure she didn't have it'. She described that when the antipsychotics (aripiprazole, 15 mg) worked as intended, she 'recognized the unnaturally rigid and inflexible nature of her beliefs, which were always in complete contradiction with any kind of rational reality'. For this reason, she admitted to herself that her mind was not functioning properly. She described having gone through 'uncountable rituals all day': counting various things or saying specific words in certain fixed sequences. The rationale for this was 'to ascertain that a major disaster, such as a fatal accident to someone I loved, or a fatal earthquake, would not happen during the next half hour'.

She described how, upon reading about schizophrenia, she 'slowly began to understand that this was not normal'. In order to resolve the situation, she initiated 'a program for learning the proper way of thinking, in the same manner as someone would re-learn to walk or speak, or how autistic children learn about feelings'. She learned to discern how 'the type, density, or energy' of her psychotic beliefs, sounds, presences, or voices differed from 'the real, healthy ones'. She became her 'toughest and most unforgiving trainer', constantly checking whether what she saw, heard, felt, and thought was similar to the perceptions, feelings, and thoughts of others. When she observed differences, she either adopted the ways of the others, or buried her idea or habit altogether. Her method proved successful, and after some time she was 'doing it almost automatically, like fixing an engine in motion piece by piece, an engine that was constantly working erroneously'.

In the presence of fear or paranoia, she experienced a partial dissolution of boundaries: an external object was 'from her or in her'. There was no full identification: she was not one with the object. The experience resembled a type of paranoid projection in the presence of partial boundlessness. To overcome such projection, she developed a technique for differentiating paranoid ideas from the non-paranoid ones.

I began questioning everything in this way: 'Does this thought or idea originate from fear or love?' The ideas 'I am the bug' and 'I am the universe' originated from love. Such good, functional ideas brought me further. On the other hand, the idea that inside me were bugs that were attacking me originated from fear. It was a sort of metaphor for the underlying trauma: you're a victim with no control over what happens to you, to your body. Psychosis is always a metaphor.

The differentiating factors were her emotional state and the degree of identification with the object. In the presence of love, one could fully identify with the world and its parts (perhaps 'surrender' to it): she experienced 'oneness'. In the presence of fear, one experienced the world as consisting of separate, threatening parts, and needed to defend oneself against them.

She felt that she was feeding the attacker simply by being alive. The bug appeared to be a representation or a metaphor of the abuser. Her brain tried to convince her that, in order to stop being attacked, she needed to die. While, from a purely factual perspective, death would have been one solution to the problem, it also conflicted with the two most fundamental intentions or 'drives': survival and reproduction.

The brain is extremely smart in this way, actually. The fact that you're alive feeds your attacker. That was the message that my brain was trying to send me: 'You feel attacked, and what do I want you to do: I want you to die. That is your role. How do I get you to die?' So I created this story: 'The fact that I'm alive is keeping the bug alive. So what do I have to do?' You see: it's a kind of a puzzle, a trick of the brain, that will always give you the same answer. That's what the mind does: it loops. You will have to die, and how do I get you to do that? I convince you that you have a disease, I convince you that you are being attacked. In various ways, the mind will try to convince you to do the same thing: to die.

In her words, her 'life force was feeding the position of being a victim'. On the other hand, 'being a victim was feeding the bug', which could be interpreted as follows: the attacker was receiving energy from the abuse, or in other words, her suffering was promoting the well-being of the attacker. In the ayahuasca context, this phenomenon is typically referred to as 'energy exchange'. Regardless of the metaphoric details, the essence was about her vulnerability, her 'core feeling', originating from personal and transgenerational trauma. She was 'certain that there could exist genetic information telling you that you are vulnerable, which could manifest as metaphors' (see e.g., (Dias and Ressler, 2013; Morin et al., 2021; Wolynn, 2016)).

Regardless of her relative success in correcting her biases, she commented that 'I was never a whole: there were just pieces that I had made functional'. Still, her only reason for staying alive was the fear of hurting her mother and her family with her death. Like in her teens, she remained very high-functioning professionally in her twenties, acquiring a PhD and starting a family of her own. Successfully keeping her symptoms a secret, she only presented with 'brief but frequent moments when my friends would see a glitch and a crisis would emerge'. She described that everyone had regarded her as 'very atypical, explosive, and unpredictable, but otherwise fun and a good friend'.

However, after a couple of years, she 'could no longer hold her emotions in check', and was beginning to act 'more and more impulsive, dangerous, and unstable'. She 'burst in fits of uncontrollable anger, violence, and self-harm'.

Frequently, she was 'watching powerlessly how someone else was in control', someone who was destroying her life, relationships, and family.

Her husband, not knowing that she had seen a psychiatrist before, convinced her to see one. The second psychiatrist performed an EEG, which he said was showing a 'classic bipolar pattern with abnormal activity all around'. He therefore diagnosed her as bipolar, prescribing a mood stabilizer (sodium valproate, 1000 mg) and an anti-epileptic (clonazepam, 0.5 mg). She told her husband about being prescribed some medication but not about the diagnosis.

After having taken the new medications for a short while, she decided that she would not accept the diagnosis of bipolar disorder either. Overcoming bipolar features was more difficult because they were 'more about emotions' which she described as her 'soft spot'. Her thoughts were easier to control than her emotions. At the time of the interview, she said this issue was 'not yet completely healed but much easier than before' and that she could manage it. She linked schizophrenia to cognitive biases and delusions, and bipolar disorder to emotional instability.

Due to medical reasons, she had to terminate a pregnancy. After that, she had another pregnancy with a high risk of death for both herself and the child. Her husband was aware of the risk but not the severity of it until the very end of the pregnancy. Her grief over the loss of the first child, and the fear of losing the second one made her more unstable than before. Her husband again asked her to see another psychiatrist, who added a diagnosis of borderline personality disorder. She remained uncertain whether this diagnosis was intended to replace or complement the diagnosis of bipolar disorder, but 'they seemed quite similar anyway'.

Once again, she began studying her newly acquired diagnosis, working on understanding it and gathering skills to handle it. However, this time she was 'too tired'. She described having been 'completely exhausted and feeling the cosmic pain that my children would eventually lose their mother because not even my children, whom I loved beyond what was possible, were enough for me to actually want to live, or like it here'. Adding to the exhaustion, she had 'another traumatic sexual experience' (undisclosed, but assumedly a rape), which led to yet another suicide attempt involving a car crash.

By then, although she could recognize in herself many of the features associated with the diagnosis of bipolar disorder, she became convinced that she had 'never actually been either schizophrenic or bipolar'. She identified more with the borderline criteria, which she said also explained her history of psychosis. She 'gave up all three diagnoses' and the related prescription medications. Regardless, she was 'not coping well'.

The memory of the diagnoses 'continued to scare' her, keeping her 'maybe even overly aware of any irregular state of mind'. She described that her sense of personal identity or trust in her thoughts or feelings had been 'completely lacking'. After years of 'forming herself based on other people's patterns', she had ended up with 'no idea' of what she liked or who she actually was (an 'adverse effect' of her training method, perhaps). She was also 'terrified of someone seeing through my well-organized composure'. This was not because of the fear of abandonment but mostly because 'I knew that if someone would regard me as crazy, I would have no tools against seeing myself instantly in the same way and eventually end up being exactly that—if there was anything to save me from being that, I was my secrecy and my decision that I was neither of those diagnoses'.

In this situation, ayahuasca had been her 'last shot'. She said that, although up to that point in her life she had also experienced 'many happy moments' and 'sincerely enjoyed life often', only her first experience with ayahuasca had transcended her life story into 'a story of light'.

The first thing I experienced during the ceremony was the emotional storm that I had trained to control for years. Following that, I felt the familiar energy, high density, and the unescapable isolation of psychosis. Only at that time, these feelings were fleeting, and they always ended in an unimaginable ocean of love and support, coming from both inside and outside of me. It was a degree of support I had never felt before, and most importantly, I experienced it in a state in which I had absolutely no way of hiding anything. For me, in that moment, there were no more secrets.

I was shocked by two things. First, about the enormity of pain and terror living inside me, which I saw so clearly that I could not believe I had ever managed to survive it. Second, about receiving so much support and trust even though this pain had surfaced and was visible. I realized that I had treated this pain as a disease, as my fault, and as my greatest shame. I could feel nothing but compassion and amazement about how I had managed to live for so long with that, with what I felt were many generations of grief, loneliness, and pure sadness. For the first time, I felt genuinely proud that I was alive.

Subsequent ayahuasca ceremonies shifted her away from having a self-image of being 'mentally broken'. She gained 'an understanding of the massive split and fragmentation that had been created in me'. Her former challenges had been about unbiasing her thoughts (cognitive or 'schizophrenic' aspects), and bypassing or controlling her emotions (emotional or 'bipolar' aspects). Her new challenge became 'how to hold in so much love, so many supportive presences, and the entire understanding of the dimensions of the soul' (connecting with the Self, perhaps). She described that 'the opening of so many more levels of consciousness finally created a space in which I as a whole made sense'.

Once I visited a psychotherapist who asked about my childhood. I said I had a perfect childhood. It was perfect. And in that exact moment when you say it, your inner child, who was hurt and not seen, kind of splits from you. This was exactly what half of my latest ayahuasca journey was about. I saw a girl who told me: 'Every time you repeated this lie, you denied me completely'.

Ayahuasca ceremony facilitators trained in accordance with traditional indigenous guidelines often mention that in ceremonies, they have the ability to access participants' visions. Interestingly, the interviewee described possessing the same skill: in a ceremony, she saw the vision of another participant; this was confirmed in a discussion afterwards. In a sharing after another ceremony, participants realized that a group of participants had shared a vision of having been in a burning medieval town, some as attackers, some as victims.

As described, her childhood symptoms had included violent raging, sleepwalking, suicidal behavior and self-harm, and actual suicide attempts. Her mother continued to deny the existence of these events or interpret them as inconsequential or harmless. The interviewee had eventually admitted her parents' wrongdoing: 'Allowing myself to accuse my parents of wrongdoing was a big thing for me. It was essential because the validation of myself as a whole became possible only after I admitted that it was not ok, instead of telling myself all my life that it was ok'.

Before the first interview, she had attended ten ayahuasca ceremonies. For the last ceremony, she had two intentions: first, to see whether unresolved trauma existed (it had appeared as if nothing significant remained); second, to find out whether ayahuasca was safe for psychotic people. To her, this was significant because she 'cared so much and believed with all her heart in this medicine'. She was going to dedicate as much of herself as she could 'to bring it to the people who need it'. She felt that it would break her heart if she felt that ayahuasca would hurt the people she wanted to help.

The result of this inquiry was that ayahuasca 'could not hurt anyone, at least not on its own'. According to her, all ayahuasca did was 'purge'. She described that while ayahuasca often caused vomiting, 'the purge' was to be understood as a metaphor, as a purging of unwanted elements from the body. In a similar way, psychosis or mania was to be conceptualized as 'vomiting of the mind'.

While her first ceremony had been explicitly about her personal early trauma, in the subsequent ones she was forced to adopt the role of a therapist for lost souls or 'spirits' who needed to be seen. This otherworldly social service function paralleled her own trauma of not having been seen. For years, she had learned various ways of conceptualizing psychological phenomena, and could choose a point of view: 'spirits' could be hallucinations, exiled parts she could not integrate, or representations of transgenerational trauma. But was such theorizing helpful, or did it only make her worse? By choosing a point of view, she could choose her reality.

In this way, we create our own reality. Rules that are pragmatic for you might not be pragmatic for me. That is why a person should primarily trust their own intuition. When you see spirits coming, you can ask: 'Do they make you feel bad? Are they intrusive?' Such questions actually matter. I found that for me, the spirits are actually vibrational matches. I have always been a very empathic person. I feel the emotions of others around me, as well as my own, very intensely. I often felt clear presences around me. I didn't see them or hear them, only felt their presence. I always had the same relationship with them: I needed to tell them that they were fine.

I could call it transgenerational trauma, but I didn't think about it like that. I felt them coming to me all the time, to show me the dead in their families. I didn't see them visually: they only existed in my mind's eye, as if I were imagining them. They could come with a dead child in their arms and say: 'Look what happened! No one knew about this.'

It was breaking my heart. I had moments during which I could not go on with my tasks. This was the most difficult thing for me. I don't know whether this specific aspect should be called psychosis. A doctor might say: 'Yes, because it disrupts your actions'. I would go erratic and stop what I was doing. I would feel that I was breaking. I had moments during which I cried as if my entire family would have been dead. Later, I learned to manage it to a degree.

Each time I asked them: 'What do you expect me to do? I feel you, I see you, and I'm really sorry for you. You see that I am breaking, but I don't know what to do with you, yet you keep coming'. Their message was always the same: 'We just want someone to see us'. After fighting with it, I eventually accepted the situation, saying: 'You know what? Maybe I simply am the kind of person who needs to see the dead people or whatever, the suffering that needs to be seen'.

My first ayahuasca ceremony was about my personal trauma and the purging of that. Right after that, spirits started arriving in droves, and my ceremonies transformed into this kind of collective work. I begun to see them visually, in person. They could look like ordinary people or like bodies of light. Each time, it was perfectly clear to me why they came to see me. It was no longer about me. I was only holding space for these spirits.

Initially, it felt like I was dying for real. The cosmic pain was of such intensity that I felt unable to contain

it all. I was hopelessly restless. Eventually, I learned that the proper way to hold space was to allow their emotions to pass through me. It was an important lesson in opening myself up. I relaxed. They embodied my body for a few seconds, and then went their ways. Their energy simply needed to flow through me to be released. They were energy stuck in the universe because they had never been seen or validated. The energy just needed to pass through something, like when you are mad and need to go to the garden just to smash something.

When I got the idea and accepted my role, things got easier. Currently, this work happens not only in ceremonies, but all the time. Maybe this doesn't really make my case that I'm no longer psychotic. I mentioned to my friends that now I actually see the spirits visually and communicate with them. They likely thought I was still psychotic. But as long as you're functional, and as long as the process feels fulfilling for you, it is a non-issue.

Eventually, I found out that, in the same way that they need me, I need them. I am not only doing charity work for the spirits. Because they are my vibrational matches, and the fact that I needed my pain to be seen attracts similar vibrations from all the layers of reality around me. It is like coming together. We think that our soul has a human experience in our body, but maybe my soul is comprised of all these external parts and fragments that are coming together.

Ever since I was a child, I had the organic possibility to see such things. It was not because I was taught to see them. I was taught differently. But this was how I felt inside since I was three or four years old. In the ceremonies, others around me shared the same experience, which I had thought was only my psychosis. I used the complete emotional instability and intensity of the psychotic experience as a bridge to connect deeply with those around me, as well as with my soul as a whole in all its past charge. I recognized that because of my unusual traits, I was able to connect to a greater wisdom, to higher self, and to feel unconditional and absolute love. I began to consider these traits a privilege.

In guidelines for ayahuasca ceremony participants and psychedelic therapy in general, participants are typically instructed to 'surrender' or 'let go' of resisting their emotions. The described process largely mirrored these instructions. The idea of emotional energy being released through experiencing it was also described in another case study concerning psychedelic therapy (Turkia, 2022a). A conventional interpretation might consider her holding space for the spirits as indirect processing of either transgenerational or personal trauma. The increased visibility of the spirits could be interpreted, for example, as a strengthening of connections between exiled parts and the Self.

It was essential to belong to a group where one felt accepted instead of being 'a freak left alone'. Her previous attempts to belong had been based on conformance, mimicry, and pretending that she was like the others and believed in the same things. This resembled society 'putting beliefs in her head' when these beliefs did not fit her. Subsequently, she believed that there was something wrong with her.

In the ceremonies, she discovered that other participants experienced the same 'dimensions' through ayahuasca. Being able to share her internal experience connected her to others, dissolving her feeling of complete isolation: 'Overcoming this isolation for the first time in my life was the reason for my ayahuasca experiences being such a big relief for me'. Instead of being 'crazy', she was 'awakened'. Despite this, she could only connect with a small group of people who shared her experience, rather than the entire society.

She also realized that she 'needed to choose what is practical'. The idea of her creating everything around her was impractical in everyday life. Among the infinite alternative worlds, the most practical solution was to choose a point of view. Existing in all dimensions made daily life impossible and equaled to psychosis. An inability to choose a point of view appeared to equal to *a lack of identity*.

Psychosis was partly 'a sort of enlightenment': a process of receiving a lot of relevant information. It only became a problem when one did not understand the information, could not process it, or choose a point of view, and subsequently got confused. Other people could provide points of reference, to discern between 'true' and 'false', practical and impractical. Although she considered many common concepts (such as, at the time of the first interview, the idea of external objects not being created by her) arbitrary and fundamentally untrue, she had 'chosen to play by the rules, to play the social game' (e.g., believe that external objects were 'real'). This acceptance had been 'her key to professional success'.

Another essential concept had been 'radical acceptance' originating from Zen Buddhism and dialectical behavior therapy (Linehan and Wilks, 2015). Her acceptance of the usefulness of radical acceptance was based on its pragmatic value in everyday life. Its essence was that there was no good or bad, and one believed that everything was necessary. By eliminating resistance, fighting, and the associated negative emotions, acceptance set an order to life: one just 'needed to play along'.

Despite having presented with 'all contraindications' to the use of psychedelics as well as contraindications to attending most ayahuasca retreats, her ceremonies had been unproblematic and productive. In her view, the purpose of contraindications was to protect weekend retreat organizers who could not provide extensive in-ceremony sup-

port and/or follow-up after ceremonies. These contraindications were understandable but, in the broader view, counterproductive.

The most difficult patients were 'usually stuck in all kinds of therapies or medications that functioned as anesthetics, only hiding their problems'. In order to optimize the cost-effectiveness of mental health services, these more challenging patients should have been prioritized over the 'easier ones'. The scarce resource of ayahuasca ceremonies should have been used for the ones who had not been helped by other means, as well as for the ones who caused the most harm to themselves, others and society by remaining untreated. Ceremonies should have been augmented with proper aftercare ('psychedelic integration'); what was important was what one did after the ceremony. She planned on providing these services herself in the future.

With regard to 'adverse effects' during the ceremony, she commented that 'if something unwanted happened, it was because one's soul chose that as its method to heal itself'. Adverse events occasionally occurred: a bipolar woman became manic after a ceremony. According to the interviewee, this was because the woman 'lacked any insight into her issues, as well as any skills for handling her particular brain chemistry'. Therefore, she had also been vulnerable to various everyday environmental triggers.

Adverse events functioned as a diagnostic filter. Instead of the patients' issues remaining 'blind spots' and these patients refusing to admit the existence and/or severity of their issues, the so-called 'adverse events' made them attentive to their issues, giving them a chance to learn how to handle them. The purpose of psychedelics was to reveal such unprocessed issues, to 'bring into light what remained unseen'. Allowing that to happen was 'very necessary'. Rather than depriving such patients of treatment, a more comprehensive approach was required.

Attitudes were also essential. An indigenous healer (met outside of the ceremony context) with a 'very gentle way of communicating and zero judgement' seemed to 'read her' non-verbally, making her feel 'very seen and validated'. His approach had been working together in order to teach her something, without putting it into words. The healer had shown her how to navigate the 'dimensions' without psychedelics. Psychiatric personnel, in contrast, verbalized, labeled, and judged, as well as appeared scared and avoidant, treating symptoms as 'monsters'. Being labeled often shocked patients, amplifying their feelings of inadequacy.

Such practices arose from and propagated 'collective trauma'. In her view, societal structures were traumatized. In the absence of experiences with alternative ways of being, collective traumatization appeared normal. Despite such appearances, an individual could feel the abnormality as an internal conflict, i.e., the pain and suffering ingrained in structures. Such causal relationships remained largely unrecognized. Some people could remain open to perceiving this state of affairs. Psychoses could result from collective trauma. Failure to find explanations in individual life histories could lead to patients being handled as mechanistic systems that could be 'adjusted with buttons: anger down, pain down, joy up'. In the extreme case, collective trauma could lead to an unrecognized, subconscious unwillingness to live, resulting in society-scale failure to thrive, or inadequate or delayed responses, 'collective freeze reactions', in the face of threats such as climate change. Societies typically wanted to further repress collective trauma instead of 'sitting with it in order to transcend to higher levels of consciousness'.

On the individual level, chronic stress from collective trauma could manifest either as psychiatric or somatic issues such as immune system disorders or cancer. The exact phenotype was determined by how much of the trauma an individual could accept, i.e. process, and release, or 'pass through'. The remainder of the 'stagnated energy' remained in the body, causing disease.

With regard to her childhood psychosis, she commented that she had 'chosen not to include myself in the world because I was not ready to acknowledge all that darkness, and also because I was basing my so-called modesty on the fact that I was still alive and others were not'. Also, getting confused was due to the simultaneous experiencing of several 'states of consciousness' or 'dimensions', some of which lacked the concepts of time and causality, as well as involuntary switching between such states.

Diagnostic practices she considered inappropriate. Schizophrenia was mentioned once in an emergency room, and never again by any doctor. Bipolar disorder was diagnosed after a short appointment with a psychiatrist, based on an EEG. She considered herself 'a victim of superficial labeling'. While some people could be 'actually bipolar' or 'schizophrenic', she considered herself different due to her high performance in her working life, which would have been impossible if she was actually bipolar or schizophrenic. She 'exhibited some unusual traits' but predominantly identified herself with a borderline condition. Therefore, she did not want to see herself as someone who had been healed from bipolar disorder and/or schizophrenia.

According to her, the root cause of schizophrenia was currently considered to be trauma combined with hiding it. Her psychotherapist friends working with schizophrenic patients considered 'stopping their patients from hiding' their primary method. A person could only heal by feeling safe and stopping hiding. They could first experience it in therapy sessions, and later in real life; in contrast, 'taking sedatives and becoming compliant' did not heal.

The outcomes of first psychoses were determined by how cultures conceptualized psychoses. She learned about the concept of psychoses as 'awakenings' from TED Talk video presentations, which mentioned that in many indigenous cultures, if a child hallucinated, she was instantly separated from her peers, carefully nurtured, regarded as a carrier

of special skills, and later trained as a healer (Borges, 2021; Somé, 1997). Individuals with hypersensitivity to interpersonal issues were identified by asking whether they had experienced near-death experiences or psychotic episodes. They were open to receiving an unusually large amount of information in interpersonal situations, but if they lacked the skill to organize and process such information, they would become dysfunctional. They could only become healers, leaders, or prophets by learning to process the information. Indigenous approaches to first psychoses aimed at initially calming these individuals down by explaining that nothing was actually wrong (Somé, 1997). Subsequently, they were taught the required skills, and later assigned a role in their society as a solver of complex interpersonal/psychiatric, and/or medical issues.

This information is mixed up and very irrational. But if you regard it like: 'Oh, how interesting! You're psychotic, maybe you have a gift, maybe you have a special ability, let's see what we can do with that', then you completely shift the perspective, prioritize that person, make him accept himself, maybe even be proud of himself: 'Oh, look: I am special, I have this kind of thing'. That's why they say that the psychotic ones are future shamans.

Her struggles had largely been the result of being overloaded with information. Conventionally, the source might be considered to be the subconscious or exiled parts. She was 'not yet perfectly healthy, and there was still processing to be done'. The abused girl part remained dissociated: she could not feel anything when talking about it, and talking about it triggered escapist reactions.

I still can't connect to it in any way. The previous time, when we talked about the abuse, I could not feel anything. I was completely blank. I could not handle the situation. I felt that if I connected, I would get completely depressed. Afterwards, I chose to numb everything with alcohol and cocaine, and I partied for three nights. Party drugs and alcohol, in contrast to plant medicines, completely isolate you from yourself and the world around you—from everything. They function exactly like psychiatric drugs, which are artificial and toxic. I knew very well what I was doing, and did it on purpose. It was a trauma response to do the exact opposite. This is how people become alcoholics or drug addicts.

I still possess these ingrained, dissociative patterns that affect my memory. Even when I don't drink or take drugs, when I go out with friends and drink only tea, the next day I only remember arriving at the bar and being at home in the morning. It is freaky. Usually, there was a trigger: something hurtful that caused me to lose touch with myself. Yet my friends did not notice anything. Later, when I asked, they said that I had acted completely normal. Regardless, none of it was stored in my memory.

As another example, people often tell me that I met with them yesterday, and I am like: Oh yes, we met yesterday, of course, I know that. And I do know that, but I only remember one sentence from a one-hour meeting. Such situations are extremely difficult: I have to pretend that I remember everything or else I will appear insane. Such situations perpetuate a vicious circle: by pretending that I remember, I deny the hurt part that caused me to forget what happened. I fail to validate that part. It creates yet another split. Ideally, I would simply tell them: 'My memory fails because I am very traumatized'. But I cannot say that.

Some of her close friends, whom she had told about this issue, could 'watch for her', i.e., occasionally notice changes in her behavior, and subsequently assume a protective role by 'not leaving her side from that moment on'.

I often see myself from the outside, say, ordering ten tequilas in a bar. I would be completely out of myself, observing the situation and saying: 'I do not want to do this, please stop, you'll get drunk'. I am certain that I don't want to get drunk, but I am looking at this person from above: looking at something that I cannot influence or stop. I need to have friends with me who say: 'Stop it!' Currently, this happens less often than before, maybe once every two or three times I attend social events. I call it 'my feet slipping'.

My friend then tells me: 'You're acting irrationally, you're crazy, stop it!' And I do. I am very complacent in such situations, even if I sometimes don't understand what they are saying. I might ask: 'What?' and they would tell me something that completely contradicts my own idea of my behavior. It might resemble descriptions of bipolar disorder. I could buy whatever people want from the bar, for a lot of people, for people I don't know, feeling like I actually know them very well, as if they were all my friends. An actual friend of mine might then interfere, saying: 'You don't know these people!' I would realize that she is right: I don't know them. But in a way, I feel that we are friends. Sometimes I need help with such things.

She also consulted her friends about work-related projects. External feedback and validation provided her with 'a lot of safety'. Regardless, she was trying to find a balance between external support and trusting herself, 'because you have to trust yourself'.

After her first ayahuasca session, in which she first experienced the possibility of not having to hide, she participated in IFS therapy sessions. The therapist asked her to pay careful attention to dissociative traits. In some sessions, he asked if he could talk to 'the other her', and 'yet another her'. According to the psychiatrist, her parts possessed different voices, moved differently, and related to people differently. She was aware of the issue herself, and mentioned

that these traits also originated from her childhood traumas, and that switching between these parts was caused by trauma triggers.

She chose to tell her story 'because it was not only her story'. She felt survivor's guilt about ending up as one of those who did not jump off the roof, although she believed the selection was 'random'. This 'complete randomness' had been the most difficult lesson of her survival. She considered herself lucky because her problems had been severe enough to 'push her into a clear awareness of the underlying causes'. People with less severe issues could remain unable to identify the underlying causes, and remain indefinitely confused and chronically depressed. People who were 'only neglected', regardless 'got the message that they were not survivable material and didn't matter'. Like a sick puppy ignored by its mother, they gave up trying. In such cases, 'soul retrieval', or a guided reliving of a traumatic event in a safe setting, accompanied by 'rewriting' the trauma memory in such a way that personal agency is reestablished, could be indicated (this mechanism may be considered the core essence shared by all psychotherapies).

Eventually, your soul breaks. In such cases, if we get more spiritual, 'soul retrieval' could be helpful. It is a metaphor, a meditation upon your wholeness: going back to the scene of the traumatic event, and taking back something that was left behind, because that is what trauma does: it breaks you and leaves a part of you at the scene.

A thorough review of the previous discussions in a follow-up interview two and a half years later revealed that, after two years, not all she had said before reflected her current views. The main difference was that she now recognized the validity of her bipolar disorder (officially, bipolar type II disorder, ICD-11 6A61; with rapid cycling, 6A80.5). Based on the case description, it could be said that before her first ayahuasca ceremony, she presented with severe (suicidal) depressive episodes with psychotic symptoms. After the first ceremonies, severe episodes no longer emerged. During the first interview, she might have been slightly manic. She was taking mood stabilizers (lamotrigine, 200 mg/day) but also continuing regular plant medicine work with ayahuasca. According to her, mood stabilizers did not interfere with the plant medicine work. With regard to dissociative symptoms, she mentioned that they had largely been resolved.

She believed that her early trauma was solely responsible for the onset of her bipolar disorder, which was an adaptation to trauma, and the core of her early trauma remained largely unresolved. She needed more C-PTSD-focused therapy and somatic work to overcome the remaining toxic shame and coping mechanisms, which included self-harm. Through constant plant medicine practice paralleled with trauma therapy, she was making slow progress with these issues, however.

She still occasionally struggled with bipolar symptoms, and while plant medicine brought 'immense gifts to her life on a daily basis', the years had brought a clear awareness that it had not cured her bipolar disorder. She was therefore 'more moderate and humble' in how she talked about plant medicines. Plant medicine or psychedelics, in any case, 'opened the door to integrating the fragmented parts from trauma, which automatically helped to resolve the bipolar mechanisms'.

She held that a history of psychotic disorders was not a contraindication to psychedelic therapy. She had been involved with plant medicine and trauma work for the whole time, and observed, in detail and for long periods of time, several people diagnosed with bipolar disorder or psychotic episodes. She was using her expertise to train psychotherapists in plant medicine work.

She considered schizophrenia to be outside the scope of her expertise. She 'did not want to risk anyone' by saying that plant medicine could cure psychosis, schizophrenia, or dissociative identity disorder. Her suffering did not match 'the really deep suffering' of people with schizophrenia. Her own diagnosis of schizophrenia she saw as a mistake: it was 'just a word someone threw once', not something she had to deal with. Instead, practically all her challenges were due to bipolar disorder. Ayahuasca had helped her a lot with that, as well as with suicidality, and she had observed the same positive effects in others.

The abuser's perspective

In contrast to most cases of early childhood sexual abuse, in the present case, the abuser later admitted the issue, validating the victim's memories. This recognition was a consequence of him attending an ayahuasca ceremony.

About my early trauma, I can talk in general terms: it was sexual abuse that went on for some years. Then I forgot about it. Such amnesia is typical. It is called dissociative memory: you kind of forget these things. And because it is a kind of Stockholm syndrome, you begin to repeat the same pattern. You get attracted to the same kind of people, because that is how you understand that you are valued.

One day, I remembered the abuse. Regardless, I always doubted whether those memories were real. There was always at least a grain of doubt: What if I am not right? What if I am only imagining it? I doubted my memories because they had been forgotten for so many years. This is very typical for victims, especially for victims of early childhood trauma. When you eventually remember, it is of course shocking, and you feel hurt. At the same time, you also feel that maybe you are crazy, or that you have invented it all. You

don't have the luxury of an ordinary person beaten up on the street. He will not question himself or the fact that he was beaten up. Therefore, he will allow himself to grieve and feel angry at his abuser.

In contrast, if you have carried a dissociated memory with you for years or decades, and suddenly remember what happened, unless you get a chance to really put the issue on the table, it will always be unclear to you whether the event you remembered really happened in the first place. Many people do not have the chance to speak to the abuser afterwards to say: 'Hey, did this really happen?' Some people do that. They have the courage. I didn't have the courage to open that discussion. But many do. Of course, typically, the abuser will then lie and say that the abuse did not happen. The victim will end up even more confused, no longer knowing what is right or wrong. I think that in time, such a response can actually cause schizophrenia. It is a split: a part of you is hurt and knows it, while another part of you is accusing the hurt part of being wrong.

I, too, carried this conflict until recently. Then I found out that all of it was actually true, although a part of me already knew that it was true. Nonetheless, receiving confirmation was a relief. But I didn't have the courage to open this discussion. The other person did.

Interestingly, the abuser eventually took up the issue as a result of also attending an ayahuasca retreat, although not immediately after it. She assumed that the ceremony had 'opened up something in him'. In addition, during the preceding years, the abuser had pursued 'self-development', realizing that he was also traumatized. According to her, they were both victims. His trauma was also an early childhood issue: the divorce of his parents. After the divorce, his parents did not get along. Because the abuser did not get along with his stepfather, i.e., the girl's father, the situation may have included an element of vengeance: abusing the girl to exact revenge on the stepfather.

People think psychosis only means having visual or auditory delusions, but it is not only that. It can also be a belief that you have. In my case, my therapist always said that if you don't talk to your abuser, if you don't tell him that you know what happened, you'll never be fully healed. You need to hear how the abuser reacts, in order to bridge your reality and the abuser's reality. Despite everything, I stayed in close contact with the abuser. We spent a lot of time together, but that reality did not link in any way to the reality of my childhood. They existed as two completely separate worlds.

Later, I recognized the same phenomenon in others. A child lives between the two incompatible realities of the mother and the father, each of whom accuses the other parent. At the father's house, he has to act like his mama is horrible. Regardless, she is still his mother, and he loves her. This situation induces trauma, because the child is presenting a facade, acting, and being something that he is not. Similarly, at the mother's place, the same kind of conflict toward the father exists. Since every child wants to be accepted and loved, he has to switch between these two conflicting realities. He will try to please the parent with whom he is living at the moment. It is very hard for a child to find a middle ground, so he will say exactly what each parent expects him to say. This creates a split in the child's mind. He has no idea how to choose or which is the true reality. Since he loves both parents, he is forced to constantly feel 'wrong'.

According to her, abusing others was another way to gain personal agency in a conflicted situation, perhaps an alternative to psychotic creation. In this option, creation was more concrete instead of illusory. Whereas a psychotic exerted power over imaginary objects, an abuser exerted power over real people.

Abusing someone else was his way of taking revenge and creating his own reality that he could control. That is how people become abusers. Initially, every time, they are victims. Victimized children lose control over their lives. For example, in such a divorce, the child will be completely torn between his parents, and has no control over his own life, his reality, or what he can create. Or maybe his needs and desires are constantly invalidated or judged. He may be considered 'never good enough' or greedy. For a traumatized child, there is no right or wrong, only the desire for reparation. Through finding someone more vulnerable, and doing something in his power for this person, he creates a reality over which he has control. By validating his desires, his actions make him feel powerful. And because what he did was a secret, he could not be judged.

Bullying someone in school or sexually abusing someone were both caused by the same mechanism. The difference was perhaps that sexuality was 'a vital force'. Sexual assault and sexual abuse were ways of expressing this vital force, but in a wrong way.

If a trauma is very deep, it affects the vital core of a person and is manifested through sexuality. It is not actually sexual: it is only vital energy that needs to be released without getting judged while feeling powerful enough to release it. This is the core issue, and it is how people become rapists or sexual abusers. It is easy to call them monsters, but they are not that. They can become monsters, but the process itself is always explainable. It would be important for our society to dare to look at these issues and begin talking about them more openly.

The reason why the abuser's trauma manifested as sexual abuse rather than other kinds of violence was because sexuality brought (more) pleasure. According to her, a traumatized person is always severely depressed. Being

depressed meant that one could no longer find pleasure in anything. Yet all animals sought pleasure. It could come through affection, understanding, or other forms, but when one lacked all of those, one resorted to shortcuts: 'any easy, animalistic way to find pleasure' (in other kinds of cases, pleasure-seeking could manifest as substance abuse or other addictions, including porn addiction).

She expressed surprise that these mechanisms were usually not clearly explained anywhere. Even therapists rarely explained them to patients. Yet, many would have benefited from clear explanations, such as: 'You were in this situation, then you did this, and maybe it was a mistake, and subsequently this and this happened, and now you need to stop splitting and hiding'. She said that these issues were currently treated in a wrong way.

People with experience of these mechanisms should talk about them. They are actually quite simple, and understanding them makes many things much easier. It would prevent people from getting lost on non-essentials such as diagnoses, and instead enable them to work on their core issues, core traumas. There are a few therapists who can actually arrive at anyone's core issue in five minutes, making it fully clear where that person's problem originated from.

Bipolar disorder as a consequence of trauma

On the relationship between emotional trauma and mental disorders, the interviewee held that the root cause of all mental disorders was complex trauma (C-PTSD). With regard to bipolar disorder specifically, she held that the idea of bipolar disorder having a genetic background was an unproven assumption. There was a 'chemical imbalance' in the bipolar brain, but this imbalance was a normal reaction to the abnormal childhood circumstances of the bipolar person. In other words, it was the neurochemical manifestation of defense mechanisms developed against trauma—a consequence of a bipolar behavioral pattern instead of its cause.

Trauma was defined as what happened in a person as a result of what happened to that person. Trauma was not a direct cause of the event itself, but a consequence of an individual's reaction to the event. Trauma only developed when the event was experienced as overwhelming, i.e., when it exceeded the person's capacity to process it. In general, younger children had less adaptive capacity and were therefore more easily traumatized than older children or adults. Typically, in cases of abuse or neglect, the child could not talk about it to anyone, or the harm was done by someone in the family. The child was perhaps unable to conceptualize the issue, lacked trust in their parents to share their experience, or was forced into secrecy.

Depending on the age of onset and the intensity of the event, the child could develop a variety of defense mechanisms. One mechanism was grandiosity and independence as a defense: 'I can do anything, I don't need anything, I am all-powerful, I am strong, I can do everything myself'. This would often lead to perfectionism, overachieving, and hyperactivity. Due to the repression of a lot of emotions, the child would also be prone to impulsivity, acting out, and aggression. These features represented the mental patterns of mania. These patterns could later lead to paranoia about someone or something trying to harm the person; this represented the vulnerability related to the original trauma that the child had not been able to speak about. The paranoia was a 'metaphor of the trauma'.

The second pole of bipolar disorder was depression: a consequence of the person running out of energy to maintain the manic defense. As the person 'crashed' or burnt out, another feature related to the original traumatic experience surfaced: powerlessness; 'I am completely unprotected and vulnerable, I am hopeless, this is never-ending; what is the point of trying anything? I will just give up'.

Summarizing the above, bipolar disorder could be conceptualized as an energy level dependent fluctuation between repressing trauma symptoms and failing at it. In this perspective, resolving the underlying trauma would fully resolve bipolar disorder. To what degree the underlying trauma can be resolved likely depends on the resources of the individual and their environment. More specifically, the resolution likely requires that a sufficient level of subjectively perceived emotional safety be achieved.

Discussion

Noorani, who also studied psychoses in the context of psychedelics, asked whether the greatest contribution of the psychedelic renaissance might actually emerge from research into states labeled as psychotic and schizophrenic (Noorani, 2022). He advised against the normalization of the contraindication of psychedelics in people with family histories of psychosis and other 'major disorders'. He also warned against the excessive formalization of modalities of psychedelic therapy. As an example, he mentioned the dominance of the idea that psychedelic experiences were 'challenging journeys that ended by returning with a treasure'. Viewed from the perspective of infinite possibilities, attempts to restrict the psychedelic experience and psychedelic therapies into rigid templates, such as current medical conventions, might appear counterintuitive and counterproductive.

Indigenous and syncretic religious practices represent alternatives to the medical model. Many indigenous worldviews greatly differ from first world conventions, up to the point of incomprehensibility. Yet, as illustrated by this case, the applications derived from those worldviews and practices may result in more viable outcomes than the more familiar

alternatives. Such differences illustrate the above mentioned arbitrariness in how concepts and practices may be chosen in societies.

Traditionally, ayahuasca and other plant medicines such as psilocybin, peyote, mescaline, and ibogaine have been used in spiritual-religious, community-centric contexts with purpose-built ritualistic structures that imply certain ethical and social principles. To ensure better treatment outcomes, instead of trying to subjugate these medicines to the medical context, their international adoption should broadly follow the community-centric models already established in the practices of various indigenous traditions and syncretic churches.

Another characteristic of the medical model is the often seemingly exaggerated pursuit of the minimization of risks. As seen, the described patient presented with all typical contraindications, yet failed to experience a single 'adverse event'. Unwanted effects might occur more often in people presenting with psychotic and/or bipolar traits, but as described by Mudge, methods to avoid most of such effects had already been developed. Also, as described by the patient, unwanted effects might serve as a screening method for identifying patients with deeper trauma.

In the context of psychedelic therapy, the traditional understanding of the concept of 'adverse events' is rarely, if ever, useful or applicable. Negative experiences are almost always due to the underlying trauma, i.e., due to reliving or re-experiencing emotions and somatic sensations related to the original trauma. The healing process explicitly requires the patient to consciously re-experience them. Usually, however, in the absence of resistance, the re-experiencing period is brief, as illustrated by the description of reliving the psychotic state. Another aspect is that in many clinical trials, adverse events such as suicidal thoughts or acute suicidality are counted, and interpreted as harmful effects of the substance. This likely indicates a misunderstanding of the therapeutic process. In addition, comparisons of the prevalence of suicidal thoughts or acute suicidality pre- and post-treatment are rarely, if ever, made. Consequently, no conclusions can be drawn; suicidality may have increased, remained unchanged, or decreased.

Concerning dosing, both Mudge and the described patient initially utilized ayahuasca in psychedelic doses. Later, Mudge adopted a practice of maintenance dosing with ayahuasca. The described patient appeared to have adopted a similar maintenance practice, but with antipsychotics (with regard to antipsychotics, McCutcheon et al. presented a new, receptor affinity-based classification system for antipsychotic medication (McCutcheon et al., 2023); it would be interesting to see where ayahuasca and its MAOI components would be located in this taxonomy). The maintenance practice likely allowed for a gradual processing of the underlying trauma. As to why it had not been fully resolved, in general, reliving trauma requires a suitable mindset and environment. There must be sufficient safety. If the patient does not feel safe enough, the traumatic events cannot be relived. Also, as is the case with C-PTSD, there may be hundreds of traumatic events. While similar events may at times be processed 'in bulk' (according to Stanislav Grof's concept of 'systems of condensed experiences', or COEX (Grof, 2019)), processing hundreds of events usually takes years. Also, new 'adult' personality structures may need to be formed where they were missing.

A group setting may partly enhance safety, but due to the need to take others into account and possible fears related to others, it may also prevent achieving a state of complete safety. The most important factor, however, are the characteristics of the facilitator of the ceremony; in the present case, details were unavailable. Similarly, in an individual therapy setting, the therapist's characteristics can either allow or prevent the patient from feeling safe (Turkia, 2022b). Therefore, a general rule would likely be that when a sufficient outcome was not achieved, the situation did not allow it. In other words, sufficient safety to relive the traumatic events was not yet reached. It should be noted, however, that there was continual, gradual progress.

One reason for the lack of expected outcomes may be a lack of safety. Another reason may be excessive mental power or energy, which allows for resistance. Stimulants (e.g., caffeine) enhance resistance. One likely purpose of the plant diets is to weaken the person. Counterintuitively, a person in poor health may be easier to heal than a person in better health. As the person gradually (re)gains energy, healing residual issues may become more difficult, as the person is in possession of more energy to counter the energy of psychedelics, which try to push one 'across the threshold'. Also, residual issues are typically more deeply ingrained and about personality than more superficial post-traumatic symptoms. In this sense, psychedelic therapy could be conceptualized as a fight between the person's mental power and the power of the psychedelic substance.

The described practice of mixing psychedelic dosing to access trauma with psycholytic or maintenance dosing to balance mood would likely be applicable and necessary in many cases of treatment-resistant depression. In previous case studies, it was estimated that in the absence of re-traumatization (i.e., under optimal conditions), a ratio of one to ten existed between years of psychedelic therapy and years of previous traumatization (Turkia, 2022c). In a less optimal situation (i.e., in the presence of constant re-traumatization), a ratio of one to four was more likely (Turkia, 2022a). In the present case, the patient had been traumatized for approximately thirty years. Thus, an optimal process might have taken three years; a less optimal one might take approximately eight years. In the present case, the ayahuasca treatment process had been ongoing for four years, thus falling somewhere in the middle.

This particular patient was highly educated, exceedingly capable of introspection and analysis, and may not represent a typical psychotic patient. Regardless, her case illustrates the immense potential of psychedelics in psychosis. Her process also aligned with the experiences of successful treatment of severely traumatized, psychotic children in the

early 1970s in the US (Fisher, 1970, 1997; Walsh and Grob, 2005), as well as the previously mentioned case of the suicidal-psychotic boy (Turkia, 2022b).

Mudge proposed a religious framework as the most suitable for the management of bipolar individuals. The indigenous consider ayahuasca ceremonies a sacrament. Their practices may not be directly applicable to Western societies. Therefore, adaptations founded on a commonly agreed-upon conceptual core might be the most appropriate. The 'neoshamanic' ceremonies in which the patient participated represented such an adaptation.

Groisman et al. anticipated that the principles of religious freedom will trump those of political definitions of illicit acts and substances Groisman and Dobkin de Rios (2007). They proposed that 'hallucinogenic' use to access spiritual realms should be distinguished from the use of substances to deaden pain and anguish or to provide hedonistic experiences.

LSD in the resolution of bipolar disorder

An important area of research is the exact relationship between trauma and bipolar disorder: is trauma the sole cause of bipolar disorder, and why does trauma cause bipolar disorder in some cases but, say, treatment-resistant depression in others? Such an inquiry would likely also allow for a new kind of diagnostic system based on etiology, based on the age of onset of trauma and the intensity and other characteristics of it, for example, whether the perpetrator was a parent, sibling, or another person, and whether the trauma was caused by neglect or aggression.

The idea of manic defense originates from Melanie Klein (Bowins, 2008; Klein, 1940; Schweitzer et al., 2005). From this perspective, mania would appear as a defense against depression caused by a loss of expectation of fulfilling one's basic needs, or against becoming conscious of a traumatic event. Subsequently, resolution of the underlying trauma would resolve bipolar disorder.

One such case of resolution has been documented by Haden and Woods in 2019 (Haden and Woods, 2020). At the age of twelve, a young girl's father was incarcerated, and she was ostracized by her peers. At the same age, she was diagnosed with an unspecified psychotic disorder, with psychotic depression, bipolar disorder, and schizophreniform disorder as possible diagnoses. She reported having heard intermittent voices in her head for several years as well as having been depressed due to various psychosocial stressors. Two of her paternal relatives had bipolar diagnoses and alcoholism. In addition, there was trauma in her maternal lineage. She was initially medicated with sertraline, which appeared to worsen her depression. A light-box treatment induced hypomania. She used cannabis daily and tried ecstasy twice. A bit later, her grandmother died. She was diagnosed with bipolar II disorder and prescribed a mood stabilizer. Later, she was hospitalized for a full-blown manic episode with psychotic features. Her diagnosis was changed to bipolar I disorder, and she was medicated with lithium and olanzapine.

At the age of fifteen, in June 2000, she accidentally ingested approximately 1100 μg of liquid LSD instead of the intended 100 μg . For the next 6.5 hours, her behavior was erratic. In the end, she was lying in a fetal position with her arms and fists clenched tightly; this was interpreted as a seizure, and an ambulance was called. When the ambulance arrived, she was alert and oriented, with no signs of a seizure. It was assumed that she had briefly lost consciousness or had been intensely preoccupied with her experience. Regardless, she was hospitalized for surveillance. The next morning, referring to her bipolar disorder, she stated, 'It's over'. In 2019, she commented that after the incident, she had lived her life 'with a normal brain', whereas before, her brain had felt 'chemically unbalanced'. Her cannabis use had remained unchanged, i.e., daily. She had stable employment, stable positive friendships, and good work relationships.

Compared to the present case, this patient was much younger, suicidality was absent, and her early traumatization was likely less severe. It may be that a similar intensity of effect cannot be reached with ayahuasca due to its propensity to induce vomiting. Also, LSD would likely be more practical in the medical context. High-dose sessions are typically self-guided. Such unsupervised sessions have been described in a recent book written by a professor of religious studies who underwent 73 solo sessions with 500–600 μg of LSD between 1979 and 1999 (Bache, 2019). As exemplified by his case, an overly complex organization may not always be necessary. A treatment might consist of a 16- to 24-hour session, preferably supervised by an experienced facilitator, followed by overnight or one-day surveillance that could be carried out by, for example, a nurse. The primary requirement for the supervisor is the ability to remain calm and focused. It should be noted that subjectively, doses around 1000 μg may be qualitatively very different from lower doses such as 100 μg , but this is also the likely reason for the exceptional outcome in the case of the girl. Before such a session, lower doses should be experimented with. Further research and experimentation on this option are needed.

The role of trauma in the etiology of psychosis

With regard to the present case, Moreira-Almeida and Cardena discussed the differential diagnosis between non-pathological psychotic and spiritual experiences and mental disorders from a Latin American perspective (Moreira-Almeida and Cardena, 2011). Considering the chronic nature of this patient's condition and the excessive distress caused by her symptoms, her condition before treatment appeared pathological. However, the ayahuasca experience appeared to transform her condition into a 'spiritual' one: nearly all of the suffering dissipated, and the level of social and functional impairment was greatly reduced.

The patient had been diagnosed as bipolar and borderline by qualified clinicians, and it was suggested that she might present with a dissociative disorder. One clinician also suggested that she might have been schizophrenic. From an etiological point of view, the primary diagnosis could have been complex post-traumatic stress disorder (C-PTSD; ICD-11 6B41) (Maercker et al., 2022). With regard to early trauma, a more useful diagnosis might have been found in the category of dissociative disorders (e.g., dissociative amnesia, ICD-11 6B61). Due to the fact that her early trauma appeared to remain only partially processed, many of the dissociative symptoms remained even after ten ceremonies. In the 2.5-year followup, however, she mentioned that dissociative symptoms had largely been resolved.

With regard to schizophrenia, she did not seem to have presented with Schneider's First Rank Symptoms: there were no auditory hallucinations, no thought withdrawal, insertion, interruption, or broadcasting, and no feelings or actions experienced as made or influenced by external agents (Soares-Weiser et al., 2015). Somatic hallucinations and delusional perceptions might have been considered a delusional disorder (ICD-11 6A24).

Khan et al. described a case of delusional parasitosis after sexual abuse (Khan et al., 2021). Norman et al. noted that patients frequently inherently rejected the diagnosis of delusion, refused to accept psychiatric care, and requested an escalating number of diagnostic tests and anti-parasitic treatments instead (Norman and López-Vélez, 2021).

In another undocumented and unresolved case of chronic, episodic psychosis caused by domestic violence and early childhood sexual abuse by the mother's brother, the girl attempted to tell her mother about the abuse, but the mother refused to believe the girl, got angry, and blamed the girl for lying. The mother's response thus amounted to an extreme betrayal of trust. In the present case, the patient stayed quiet about the abuse while the mother possibly 'chose not to see'; this could be seen as a similar but more subdued betrayal.

Mitchell, an IFS therapist, defined psychosis as an enormous internal conflict with two groups of 'parts' of personality with conflicting intentions: one group of parts needing something to be known, and another group of parts needing the same thing not to be known (Mitchell, 2021). Mitchell referred to psychosis as a 'spiritual awakening'. Mitchell mentioned that her patients had described the psychotic, 'non-ordinary' states as the 'most terrifying they had ever experienced' (Mitchell, 2021). The therapist needed to maintain a 'curious but thoroughly unafraid' attitude in order to support ('hold space') such patients. Mitchell's observations and suggestions were consistent with those made in the current case.

In an innovative manner, Fusar-Poli et al. utilized ethnographic methods and wrote an article about the subjective experience of psychosis together with patients (Fusar-Poli et al., 2022). They divided the subjective experience of psychosis into five phases: 1. premorbid; 2. prodromal; 3. the first episode; 4. relapsing; and 5. chronic. The premorbid phase was often asymptomatic and characterized by loneliness, isolation, loss of common sense, and bodily discomfort or alienation. The prodromal phase was characterized by a feeling that an important truth about the world was soon going to be revealed. The sense of self was perturbed, and contact with reality was compromised. These issues were typically kept secret. In the first episode phase, the onset of delusions triggered a sense of relief and resolution. There was a feeling that everything related to oneself. Boundaries between the inner and outer worlds were lost, as well as agency. There was a feeling of overwhelm and chaos, and a loss of trust in the world. The relapsing phase was about grieving for personal losses, feeling split between realities, and the uncertainty of the future. The chronic phase was about accepting the new self-world, hiding the inner chaos from others, feeling loneliness, and having a desperate need to belong.

In the present case description, most of the features of these phases can be recognized, but there were no clear phases. Instead, she appeared to have been more or less psychotic for her whole childhood, without a clear 'first psychosis'. Her refusal to accept the diagnoses functioned as a way to maintain a degree of personal agency.

In contrast to the present case study, the study by Fusar-Poli et al. did not recognize or discuss the role of emotional or early trauma. They also appeared to present psychosis as chronic and unhealable, seemingly focusing on schizophrenia, whereas the present case discussed bipolar disorder with psychotic features. Missing from their description of phases were gradual recovery and remission. In the present case, such a recovery phase can be recognized. The current state could be considered a nearly full remission phase: she was high-performing professionally, her relationships and family life were functional, and the main remaining issue was relatively mild dissociation.

With regard to transgenerational inheritance of trauma, in addition to epigenetic mechanisms leaving no cognitive trace (Morin et al., 2021), trauma could also be picked up from the behavior of parents, grandparents, relatives, or anyone. Reactions by triggered parents could overwhelm their children, causing exiled parts to emerge. Trauma would propagate, or evolve, with slightly different exiled cognitive content, but possibly (nearly) identical physiological consequences. Regardless, the essence of the cognitive content would likely be shame and inadequacy. Collective trauma, i.e., society-wide, shared trauma, would propagate in the same interpersonal manner, but also through any existing structures: group behaviors, habits, rituals, mindsets, institutions, and/or architecture.

As an aside, the interviewee mentioned that social pressure to conform had made her feel as if society was 'putting beliefs in her head', and that such beliefs 'had not fit her'. Hypothetically, this pattern of thought, when expressed in a more vague form (say, how a four-year old would put it), appears to resemble the concept of 'thought insertion' in schizophrenia. After all, external influence, say, in the form of propaganda, is essentially 'thought insertion'.

In the previous case study (Turkia, 2022b), it was proposed that antipsychotics should be used temporarily or intermittently instead of as a prophylaxis. There is evidence that in the short term, antipsychotics improve quality of life, functioning, and disability, reduce psychopathology, the severity of illness, compulsive behavior, and improve cognitive insight (Verma et al., 2020). However, in a 19-year follow-up, moderate and high cumulative antipsychotic maintenance treatment within the first five years after first-episode psychosis was consistently associated with a higher risk of adverse outcomes (continuing use of antipsychotics, psychiatric treatment, disability allowances, mortality), as compared to low or zero exposure (Bergström et al., 2020). The present case aligned with the idea of intermittent use.

The brain as a filter

The interviewee referred to the long-standing hypothesis in psychedelic discourse: the brain as a potential receiver of information existing in a universal field (an unpublished hypothesis proposed that information would be encoded as standing electromagnetic waves; due to the waves being standing, they could be accessed at any point, and any change to the waveform would immediately be reflected everywhere). According to the interviewee, the field manifested as 'absolute, unconditional love'. In the IFS terminology, such a field of absolute love might refer to the absolute powers of the Self; in the Christian religious terminology, it might refer to the concept of 'heaven'. The suggested interpretation would be that such a field of information could be accessed only in a certain state, and this state would be characterized by the attributes of unconditional love, ecstasy, 'oneness', or 'ego dissolution'; in other words, through a complete absence of fears.

Concerning Christianity, a notable recent pursuit is the Ligare network (ligare.org): 'an open network of people who desire legal and safe access and believe that Christianity and other existing religious traditions offer paths for preparing, experiencing, and integrating mystical experiences, including those occasioned by sacred plants and compounds'. The network was founded by reverend Hunt Priest, one of the participants in a 2016 psilocybin study involving religious professionals (Lattin, 2022). A similar Jewish network was founded by another study participant (shefallow.org).

Huxley, who experimented with the plant psychedelic mescaline, held that psychedelics opened a 'reducing valve' in the brain and nervous system that ordinarily inhibited access not only to the subconscious but to 'everything that is happening everywhere in the universe' (Huxley, 2004). Filtering was helpful in preventing overwhelm in some ways, but it was also counterproductive in others. The field could be accessed by psychotic people, people under the influence of psychedelics, and children who had not yet been habituated to such filtering. Osmond noted that not only did the brain filter out the information, but it also provided no means of describing it (Huxley and Osmond, 2018). Therefore, such experiences could not be properly put into words.

Carhart-Harris et al. suggested that psychedelics decrease activity and connectivity in the brain's key connector hubs, enabling a state of unconstrained cognition (Carhart-Harris et al., 2012). Psilocybin 'appeared to inhibit brain regions that are responsible for constraining consciousness within the narrow boundaries of the normal waking state, an interpretation that is remarkably similar to what Huxley proposed over half a century ago' (Halberstadt and Geyer, 2012).

Some indigenous traditions use plant diets and dietary restrictions to transform the body by turning it 'bitter' by consuming only bitter plants (Pérez-Gil, 2001). Such practices appeared to assume that consumption of salt or any sweet food, as well as any sexual behavior, prevented proper access to this information.

The three types of intuition

Such information could also be accessed without substances through serenity, i.e., in the absence of fear, through euphoric, harmonic, or 'connected' states of mind (perhaps through the Self). Raami, who researched Finnish inventors, noted that most of them described having acquired their ideas through 'unexplainable' methods or 'intuition' (Raami, 2015, 2019b); better known examples included Nicola Tesla and cytogeneticist Barbara McClintock (Keller, 1983). For comparison with the EBM paradigm and as an example, McClintock utilized a rather different, perhaps more 'psychedelics-compatible' method for knowledge acquisition (Keller, 1983). Her method was described as mystical and was based on intuition, dissolution of the ego, and the concept of plant consciousness (Owl, 2022). Subsequently, she was ridiculed for decades. In 1983, she was awarded the unshared Nobel Prize in Physiology or Medicine. With regard to other methods, the family constellations method often appears to produce similar 'unexplainable' information about the participants' lives (Wolynn, 2016).

Raami classified intuition into three types: instinct based, domain specific, and 'superintuition' (Raami, 2019a). With regard to time, the first concerned the present, the second history and the future, and the third lacked the concept of time. Various individuals and groups emphasized different types. In a very rough categorization, it might be considered that medical professionals emphasize the second type, which may lead to rigid single-lens perspectives. Indigenous people appear to emphasize the first type. Psychedelics and psychosis appear to open the third type, also occasionally accessible with other means. Relationships between groups using different types may become tense. From the domain-specific perspective, the third type appears based on superstition, and the first type appears irrational. From an instinct based perspective, the second type appears as hairsplitting, rigid, elitist, and impractical, and the

first type as weak and lazy. From the perspective of the third type, the first may appear as selfish, brutal, and unethical, and the second as arrogant, heartless, immovable, cold, and boring. All these disconnections were based on and fed by fears and separation.

In practice, from the indigenous perspective, the need to 'research the efficacy and safety' of the methods they have successfully used for centuries may appear ridiculous, especially if the people in question refuse to test the methods for themselves, subsequently appearing pusillanimous. On the other hand, medical professionals may consider the application of these methods 'without evidence base' completely 'irresponsible'. To the extent possible, the present case study aims at illustrating that such polarized views are unnecessary, and that the required kind of societal progress can only follow from the adoption and application of all three approaches.

Victimization/object-perspective versus agency/subject-perspective

With regard to victimization, a large proportion of the population may see themselves as victims. While understandable, it is counterproductive from the perspective of regaining agency. More generally, this attitude may result from seeing oneself and the world as conceptual objects instead of subjects or processes. In this condition, perceptions appear to the consciousness primarily as predefined concepts and logical relationships between them (a 'historical' view). An alternative is perceiving oneself as being in the present in an immediate sensory field, which is a continually changing process. Such 'pre-conceptual' experiences may be experienced with psychedelics. In everyday life, pre-conceptual experience may be more common in, say, dancers and children. It may also be more typical for the indigenous, who may refer to the rigid, conceptual way of experiencing as 'white person's mind'. In the sensory, or 'sensual' approach, the world may appear as more fluid, immediate, and changeable: things, including oneself, are processes, not objects. They may appear primarily as 'energies' or impressions; the experience may feel more 'direct', unfiltered, or immediate. Such experience may be related to reacquiring an embodied feeling of agency—a difficult-to-describe sensation of experiencing oneself as a subject instead of an object; as powerful, or as someone who can create.

An embodied sense of agency is required to implement the necessary changes in everyday life. While psychedelics may show what should be done, and resolve some triggers preventing certain actions, in the end, they don't do things for you. As an example, let us assume that overwhelming traumatic events caused chronic tension to accumulate in the body, and this tension prevented proper functioning of the lymphatic system, which led to somatic disease. Psychedelics may reveal that such tension is present and even dissolve the triggers. However, somatic work such as yoga may be needed to resolve the effects of the chronic tension (Namkhai Norbu, 2008; Wangyal and Dahlby, 2002). As another example, psychedelics may reveal that you reside in a constantly re-traumatizing social setting (e.g., marriage, workplace), but they don't change that environment for you (Turkia, 2022a,c). This brings us to the communal aspect: as illustrated by the present case, both illness and healing are processes, not states. They are also systemic instead of individual phenomena.

Societal aspects

In the context of the 'psychedelic renaissance', there has often been a certain caution about not repeating the backlash of the 1970s. Hughes et al. noted that the Portuguese decriminalization of all illicit drugs in 2001 did not lead to major increases in drug use; instead, evidence indicated reductions in problematic use, drug-related harms, and criminal justice overcrowding (Hughes and Stevens, 2010; Rêgo et al., 2021). The continuous availability of psilocybin in the Netherlands has been uneventful (van Amsterdam et al., 2011). Holoyda noted that large-scale epidemiologic surveys suggested that psychedelics may reduce individuals' risk of interpersonal violence (Holoyda, 2020). Roberts outlined a program to enhance human capabilities to match or surpass the increasing capabilities of artificial intelligence (Roberts, 2013).

Since the 1980s, on a societal level, after a few decades of apparently borderlinish developments, overt psychotic episodes seem to have emerged in some nations in the 2020s. In this situation, even a widespread, uncontrolled, adoption of psychedelics might merely add clarity, enforce boundaries, and clarify long-term visions of societal goals. In general, people tend to avoid facing their traumas, and consequently, even when offered a chance, they tend to come up with any kind of excuses in order to avoid the use of psychedelics. To put it differently, they actively seek out psychedelics and express interest in taking them, but when offered the opportunity, they ultimately choose not to partake. In the short term, the free availability of psychedelics would likely not lead to much, as has been observed with the legalization of cannabis. In the mid- and long-term, however, it would likely lead to significant improvements in mental health and leadership skills.

Democratic practices appear to be failing in many societies due to a decreasing ability to understand how societies function (everyone must feel that they have a personally meaningful task and a purpose, there must be a shared understanding of which tasks and methods are necessary and useful and which are not, and the useful tasks must be executed in a harmonious, synchronized manner). Many healthcare systems appear lost in shortsightedness, a lack of perspective, and a pursuit for profits, as well as stuck in an ever-increasing pursuit for 'evidence' through archaic methods. If Western societies wish to retain some relevance, they need to significantly improve the clarity of thinking and decision-making of people in leadership positions. It has seemed impossible to achieve with the current methods.

As stated in a famous quote, 'problems cannot be solved at the same level of awareness that created them' (de Geus, 1997), or 'a new type of thinking is essential if mankind is to survive and move toward higher levels' (Foster, 2011).

Celidwen et al. proposed that the ethical principles of traditional indigenous medicine could guide psychedelic research and practice (Celidwen et al., 2023). A global indigenous consensus process identified eight interconnected ethical principles, including: reverence for Mother Nature, respect, responsibility, relevance, regulation, reparation, restoration, and reconciliation. In practice, the intention appeared to be, roughly, that indigenous authority should be prioritized in anything related to psychedelics, indigenous actors should lead or participate in leading all psychedelic-related practices, indigenous actors should be included in ethical review boards, and profits should go mainly to the indigenous.

From the above, it could be inferred that a largely irreconcilable conflict might persist for some time. A practical solution would be that ayahuasca would remain primarily, within reason, in the control of indigenous peoples, while first-world therapies would be primarily based on the patent-free application of LSD, DMT, MDMA, and 2C-B (Meckel Fischer, 2015), for example. In other words, at least the synthetic psychedelics and therapies based on them should be free of any profit motive, and available to all without restrictions. On the other hand, neither should an indigenous dictatorship resembling 'Big Pharma' be built around plant psychedelics. A reasonable balance between interests is needed. Both the abusive, ignorant practices of profit-driven psychiatry and the psychedelic industry, and indigenous peoples' poverty and bitterness are issues that must be addressed. Regardless, the response to abuse should not be counter-abuse (Turkia, 2023). All parties should overcome their destructive patterns. For example, in some tribes, despite the use of ayahuasca, women are still occasionally subjected to extreme sexual violence.

To be fair, while, in many cases, current indigenous practices may be considered 'university-level' and the corresponding first-world practices 'kindergarten-level', the indigenous are not the only inventors of psychedelics or psychedelic therapies. LSD was invented in Switzerland, MDMA in Germany, and 2C-B in the US (Shulgin and Shulgin, 1991, 1997). Independent of indigenous practices, therapies based on these have a relatively long history in Western countries. Notable examples include the treatment of psychotic children with LSD in the US in the early 1970s (Fisher, 1970, 1997; Walsh and Grob, 2005), and the use of MDMA in Europe and the US (Passie, 2018). The case of psilocybin is complex, as psilocybin mushrooms grow naturally in most parts of the world.

Neurobiological aspects

The origin of the dimensions without time or causality is an interesting open question. From a modeling perspective, in a simple control system lacking memory and only capable of fixed, reflexive reactions to stimuli, each reaction is causally independent, and there is no experience of continuous time. Adding rudimentary learning capabilities (e.g., classical conditioning and habituation) allows for the learning of trauma triggers.

If the 'life experience' of such a system were observed from the outside, it might resemble a series of flashback-like images occurring at irregular, apparently random time intervals (determined by the environment), with each stimulus causing an instant reaction with no understandable rationale. The system would react only when 'triggered', and the reactions would appear incomprehensible to an observer lacking an understanding of the physical structure. In the presence of an upper layer with its own control system, reactions triggered at the lower layer would override decisions at the upper layer. Apart from the minimal capacity for conditioning and habituation, from the perspective of the observing upper layer, life would appear uncontrollable and randomly disrupted.

Together, the brainstem, the cerebellum, and the autonomous nervous system might form the closest approximation of such a system in humans. They are considered responsible for regulating basic life-sustaining functions such as breathing, heart rate, blood pressure, and the control of movement, including instinctual, automatic, survival-related behaviors (fight, flight, and freeze). Severe trauma might alter connectivity between these and other parts of the brain so that the person could observe their internal functioning. Psychedelics have been observed to enhance connectivity between some areas of the brain (Preller et al., 2018). Hypothetically, increased connectivity might allow for such direct inspection, and the same phenomenon might be present in severe traumatization.

The survival-related behaviors could be seen as fixed programs. Freeze should end in reactivation, fight in victory, and flight in a successful escape. In this context, trauma would be an interruption of these programs. Healing trauma would be letting these programs run to their ends.

In 2017, Roelofs reviewed neurobiological mechanisms in animal and human freezing, proposing a research agenda to stimulate translational animal-human research in the emerging field of human defensive stress responses (Roelofs, 2017). This agenda would likely involve the role of implicit or procedural memory in trauma (Levine, 2015). The fundamental control structures responsible for survival-related behaviors might currently be the most promising direction for further research.

Most people never experience a dysfunction involving severe trauma and uncontrollable dissociation. A lack of direct, personal experience may hinder both research and therapy. This may be why some indigenous traditions require prospective ayahuasca ceremony facilitators to undergo extensive training that induces prolonged starvation and near-death experiences: the mechanisms differ too much from conventional emotional-cognitive logic, and may only be comprehensible through personal experience.

The practice of self-experimentation

With regard to research, while psychedelics may be seen as a somewhat progressive approach, a more interesting question, however, is: what comes after psychedelics? Largely, psychedelics deal with the limits of observing the process of observing. Is there a yet another, never seen a level or way of experiencing? Is there an even deeper explanation of the process of being alive?

Self-experimentation, i.e., scientific experimentation in which the experimenter conducts the experiment on themselves, has a long history in medicine (Weisse, 2012). Notable recent examples include the development of the opioid detoxification product Heantos-4 by a traditional Vietnamese herbalist, Tran Khuong Dan, who tested his method by addicting himself first to opium and then heroin, confirming the efficacy of his invention based on twelve non-toxic, non-addictive herbal components (Turkia, 2021). Tetrahydroprotoberberines were later identified as the most likely active ingredients (Ahn et al., 2020; Nesbit and Phillips, 2020).

The instance of self-experimentation conducted by Mudge aligns with the historical tradition of similar endeavors undertaken by previous investigators. As noted by Weisse, several of these investigators received Nobel Prizes. He added that 'although self-experimentation by physicians and other biological scientists appears to be in decline, the courage of those involved and the benefits to society cannot be denied' (Weisse, 2012).

Conclusions

This article aims to deepen current understanding of bipolar disorder and psychotic episodes caused by early trauma. As demonstrated by the present case, contrary to common belief, psychedelics may increase mental clarity and add structure to life. Low-dose maintenance treatment of bipolar disorder with certain preparations of ayahuasca shows promise. Larger doses may alleviate suicidality and facilitate the processing of traumatic events, but the process requires commitment and patience. Although a single session with ayahuasca or LSD may resolve acute suicidality, resolving the long-term effects of early abuse can be challenging. Thus, preventing complex trauma remains critical.

Psychedelic therapies may primarily benefit individuals with high cognitive capacity and intrinsic motivation for their use, but with proper guidance, they could be beneficial for the majority of people with severe trauma. In this particular case, it seemed that while neither mood stabilizers nor ayahuasca alone were sufficient to resolve bipolar disorder in the short term, in combination they enabled continuous progress in healing her complex trauma in the long term. The research in progress may provide further perspectives on the use of ayahuasca in the management of bipolar disorder. With regard to full resolution instead of the management of symptoms, high-dose LSD treatment might open new perspectives on the issue.

'Even when we do small work for twenty people, we have the potential to impact millions of people.'

'I want people who have been in similar situations to hear my story. I was looking for people who would say, 'I had this too!' But I didn't have anyone to talk to. I felt lonely and conflicted. It would matter a lot to me if people began to share these stories.'

'Truth can only be found through quiet introspection, and the right way is to stay still and observe.'

'From your heart, for all of us.'

Abbreviations: The following abbreviations are used in this manuscript:

2C-B	4-Bromo-2,5-dimethoxyphenethylamine
2C-x	psychedelic phenethylamines (e.g., 2C-B)
2C-T-x	psychedelic phenethylamines (e.g., 2C-T-7)
5-HT _{2A} receptor	a subtype of serotonin (5-HT) receptors
5-MeO-xxT	psychedelic tryptamines (e.g., 5-MeO-DMT)
ACE	adverse childhood experience
C-PTSD	complex post-traumatic stress disorder
DOx	substituted amphetamines (e.g., 2,5-Dimethoxy-4-methylamphetamine; DOM)
DMT	N,N-dimethyltryptamine
DXM	dextromethorphan
EEG	electroencephalography
LSD	lysergic acid diethylamide
MAOI	monoamine oxidase inhibitor
MDMA	3,4-methylenedioxymethamphetamine
MXE	methoxetamine
NBOM	substituted phenethylamines (e.g., 25E-NBOMe)
PTSD	post-traumatic stress disorder
SSRI	selective serotonin reuptake inhibitor
THC	tetrahydrocannabinol
UDV	União do Vegetal

Acknowledgments: The author would like to thank: sensei 白い城 and her acquaintances; Elise (NL); psychologist Iikka Yli-Kyyny (FI) for support. This article is dedicated to a little girl with 'two mothers: a good one and a bad one'.

Authors' contributions: The author was responsible for all aspects of the manuscript.

Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Availability of data and materials: Due to the protection of anonymity, the materials are not available.

Ethics approval and consent to participate: A consent to participate from the patient was obtained. Ethics pre-approval does not apply to retrospective ethnographic studies.

Consent for publication: A consent as an audio recording from the patient was obtained. Due to the sensitive nature of the subject, the interviewee requested a waiver of other forms of documentation of informed consent (45 CFR § 46.117(c)(1)(i)).

Competing interests: The author declares that he has no competing interests.

Author details: Independent researcher, Helsinki, Finland. ORCID iD: 0000-0002-8575-9838

References

- Ahn, S., Nesbit, M.O., Zou, H., Vacca, G., Axerio-Cilies, P., Sung, T.V., Phillips, A.G., 2020. Neural bases for attenuation of morphine withdrawal by Heantos-4: role of l-tetrahydropalmatine. *Scientific Reports* 10, 21275. URL: <https://doi.org/10.1038/s41598-020-78083-x>, doi:10.1038/s41598-020-78083-x.
- Aixalà, M., 2022. *Psychedelic Integration: Psychotherapy for Non-Ordinary States of Consciousness*. Synergetic Press.
- Alcantarilla, L., García-Alcarria, E., Almonacid, C., 2022. Episodios psicóticos inducidos por ayahuasca: revisión sistemática a partir de un caso. *Rev Neuropsiquiatr* 85, 224–234. URL: <https://doi.org/10.20453/rnp.v85i3.4331>, doi:10.20453/rnp.v85i3.4331.
- van Amsterdam, J., Opperhuizen, A., van den Brink, W., 2011. Harm potential of magic mushroom use: a review. *Regul Toxicol Pharmacol* 59, 423–429. URL: <https://doi.org/10.1016/j.yrtph.2011.01.006>, doi:10.1016/j.yrtph.2011.01.006.
- Bache, C.M., 2019. *LSD and the Mind of the Universe: Diamonds from Heaven*. Park Street Press, Rochester, Vermont.

- Bergström, T., Seikkula, J., Köngäs-Saviaro, P., Taskila, J.J., Aaltonen, J., 2022. Need adapted use of medication in the open dialogue approach for psychosis: a descriptive longitudinal cohort study. *Psychosis* 0, 1–11. URL: <https://doi.org/10.1080/17522439.2022.2134444>, doi:10.1080/17522439.2022.2134444.
- Bergström, T., Taskila, J.J., Alakare, B., Köngäs-Saviaro, P., Miettunen, J., Seikkula, J., 2020. Five-year cumulative exposure to antipsychotic medication after first-episode psychosis and its association with 19-year outcomes. *Schizophr Bull Open* 1. URL: <https://doi.org/10.1093/schizbullopen/sgaa050>, doi:10.1093/schizbullopen/sgaa050.
- Beutler, S., Mertens, Y.L., Ladner, L., Schellong, J., Croy, I., Daniels, J.K., 2022. Trauma-related dissociation and the autonomic nervous system: a systematic literature review of psychophysiological correlates of dissociative experiencing in PTSD patients. *Eur J Psychotraumatol* 13, 2132599. URL: <https://doi.org/10.1080/20008066.2022.2132599>, doi:10.1080/20008066.2022.2132599.
- Beyer, S.V., 2009. *Singing to the Plants: A Guide to Mestizo Shamanism in the Upper Amazon*. University of New Mexico Press. URL: <https://unmpress.com/books/singing-plants/9780826347305>.
- Blackwell, S., 2011. Am I Bipolar or Waking Up? CreateSpace. URL: https://web.archive.org/web/20211213151106/https://www.bipolarawakenings.com/_files/ugd/915faa_c24ad2bfb6509610122bdb028d25e927.pdf.
- Borges, P., 2021. Psychosis or spiritual awakening. URL: <https://web.archive.org/web/20210730065403/https://singjupost.com/phil-borges-on-psychosis-or-spiritual-awakening-at-tedxumkc-transcript/?singlepage=1>.
- Bosch, O.G., Halm, S., Seifritz, E., 2022. Psychedelics in the treatment of unipolar and bipolar depression. *Int J Bipolar Disord* 10, 18. URL: <https://doi.org/10.1186/s40345-022-00265-5>, doi:10.1186/s40345-022-00265-5.
- Bourgeois, C., Lecomte, T., Daigneault, I., 2018. Psychotic disorders in sexually abused youth: a prospective matched-cohort study. *Schizophr Res* 199, 123–127. URL: <https://doi.org/10.1016/j.schres.2018.03.020>, doi:10.1016/j.schres.2018.03.020.
- Bouso, J.C., Andiön, Ó., Sarris, J.J., Scheidegger, M., Tófoli, L.F., Opaleye, E.S., Schubert, V., Perkins, D., 2022. Adverse effects of ayahuasca: results from the Global Ayahuasca Survey. *PLOS Glob Public Health* 2, e0000438. URL: <https://doi.org/10.1371/journal.pgph.0000438>, doi:10.1371/journal.pgph.0000438.
- Bowins, B., 2008. Hypomania: a depressive inhibition override defense mechanism. *J Affect Disord* 109, 221–232. URL: <https://doi.org/10.1016/j.jad.2008.01.028>, doi:10.1016/j.jad.2008.01.028.
- Bray, P., 2018. Holotropic Breathwork as a therapeutic intervention for survivors of trauma: an autoethnographic case study, in: McInnes, E., Schaub, D. (Eds.), *What Happened? Re-presenting Traumas, Uncovering Recoveries*. Brill, pp. 187–218. URL: https://doi.org/10.1163/9789004385931_011, doi:10.1163/9789004385931_011. <https://web.archive.org/web/20210427174241if/https://brill.com/downloadpdf/book/edcoll/9789004385931/BP000012.pdf>
- Brennan, W., Jackson, M.A., MacLean, K., Ponterotto, J.G., 2021. A qualitative exploration of relational ethical challenges and practices in psychedelic healing. *J Humanist Psychol* 0, 00221678211045265. URL: <https://doi.org/10.1177/00221678211045265>, doi:10.1177/00221678211045265.
- Buller, K., Moore, J., Janikian, M., 2021. Bipolar and psychedelics with Benjamin Mudge. May 14, 2021. URL: <https://psychedelicstoday.com/2021/05/14/ptsf59/>.
- Byrska, B., Masier, K., Stanaszek, R., 2022. Chemical composition of ayahuasca seized in Poland. *Toxicol Anal et Clin* 34, S99. URL: <https://doi.org/10.1016/j.toxac.2022.06.152>, doi:10.1016/j.toxac.2022.06.152.
- Callon, C., Williams, M., Lafrance, A., 2021. Meeting the medicine halfway: ayahuasca ceremony leaders' perspectives on preparation and integration practices for participants. *Journal of Humanistic Psychology* 0, 00221678211043300. URL: <https://doi.org/10.1177/00221678211043300>, doi:10.1177/00221678211043300.
- Carhart-Harris, R.L., Erritzoe, D., Williams, T., Stone, J.M., Reed, L.J., Colasanti, A., Tyacke, R.J., Leech, R., Malizia, A.L., Murphy, K., Hobden, P., Evans, J., Feilding, A., Wise, R.G., Nutt, D.J., 2012. Neural correlates of the psychedelic state as determined by fMRI studies with psilocybin. *Proc Natl Acad Sci U S A* 109, 2138–2143. URL: <https://doi.org/10.1073/pnas.1119598109>, doi:10.1073/pnas.1119598109.
- Celidwen, Y., Redvers, N., Githaiga, C., Calambás, J., Añaños, K., Chindoy, M.E., Vitale, R., Rojas, J.N., Mondragón, D., Rosalío, Y.V., Sacbajá, A., 2023. Ethical principles of traditional indigenous medicine to guide western psychedelic research and practice. *Lancet Reg Health Am* 18, 100410. URL: <https://doi.org/10.1016/j.lana.2022.100410>, doi:10.1016/j.lana.2022.100410.

- da Costa, A.M.B., da Silva, D.D., Gomes, N.G.M., Dinis-Oliveira, R.J., Madureira-Carvalho, Á., 2020. Toxicokinetics and toxicodynamics of ayahuasca alkaloids N,N-dimethyltryptamine (DMT), harmine, harmaline and tetrahydroharmine: clinical and forensic impact. *Pharmaceuticals* 13, 334. URL: <https://doi.org/10.3390/ph13110334>, doi:10.3390/ph13110334.
- Danforth, A., 2009. Focusing-oriented psychotherapy as a supplement to preparation for psychedelic therapy. *Journal of Transpersonal Psychology* 41, 151–181. URL: <https://web.archive.org/web/20220902151646/https://www.complexttrauma.uk/uploads/2/3/9/4/23949705/trps-41-02-151.pdf>.
- de Deus Pontual, A.A., Tófoli, L.F., Corradi-Webster, C.M., van Oorsouw, K., Delgado, A.R.O., Ramaekers, J.G., 2022. The influence of ceremonial settings on mystical and challenging experiences occasioned by ayahuasca: A survey among ritualistic and religious ayahuasca users. *Frontiers in Psychology* 13. URL: <https://doi.org/10.3389/fpsyg.2022.857372>, doi:10.3389/fpsyg.2022.857372.
- Devenot, N., Conner, T., Doyle, R., 2022a. Dark side of the shroom: erasing indigenous and counterculture wisdoms with psychedelic capitalism, and the open source alternative or, a manifesto for psychonauts. *Anthropol Conscious* 33, 476–505. URL: <https://doi.org/10.1111/anoc.12154>, doi:10.1111/anoc.12154.
- Devenot, N., Seale-Feldman, A., Smith, E., Noorani, T., Garcia-Romeu, A., Johnson, M.W., 2022b. Psychedelic identity shift: a critical approach to set and setting. *Kennedy Inst Ethics J* 32, 359–399. URL: <https://doi.org/10.1353/ken.2022.0022>, doi:10.1353/ken.2022.0022.
- Dias, B.G., Ressler, K.J., 2013. Parental olfactory experience influences behavior and neural structure in subsequent generations. *Nat Neurosci* 17, 89–96. URL: <https://doi.org/10.1038/nn.3594>, doi:10.1038/nn.3594.
- Dolezal, L., 2022. The horizons of chronic shame. *Human Studies* 45, 739–759. URL: <https://doi.org/10.1007/s10746-022-09645-3>, doi:10.1007/s10746-022-09645-3.
- Dolezal, L., Gibson, M., 2022. Beyond a trauma-informed approach and towards shame-sensitive practice. *Humanit Soc Sci Commun* 9, 214. URL: <https://doi.org/10.1057/s41599-022-01227-z>, doi:10.1057/s41599-022-01227-z.
- Dorahy, M.J., Gold, S.N., O’Neil, J.A. (Eds.), 2023. *Dissociation and the Dissociative Disorders: Past, Present, Future*. Routledge, New York, NY.
- Dourron, H.M., Strauss, C., Hendricks, P.S., 2022. Self-entropic broadening theory: toward a new understanding of self and behavior change informed by psychedelics and psychosis. *Pharmacol Rev* 74, 984–1029. URL: <https://doi.org/10.1124/pharmrev.121.000514>, doi:10.1124/pharmrev.121.000514.
- Durante, Í., dos Santos, R.G., Bouso, J.C., Hallak, J.E., 2021. Risk assessment of ayahuasca use in a religious context: self-reported risk factors and adverse effects. *Brazilian Journal of Psychiatry* 43, 362–369. URL: <https://doi.org/10.1590/1516-4446-2020-0913>, doi:10.1590/1516-4446-2020-0913.
- Estradé, A., Onwumere, J., Venables, J., Gilardi, L., Cabrera, A., Rico, J., Hoque, A., Otaiku, J., Hunter, N., Kéri, P., Kpodo, L., Sunkel, C., Bao, J., Shiers, D., Bonoldi, I., Kuipers, E., Fusar-Poli, P., 2023. The lived experiences of family members and carers of people with psychosis: a bottom-up review co-written by experts by experience and academics. *Psychopathology*, 1–12 URL: <https://doi.org/10.1159/000528513>, doi:10.1159/000528513.
- Fisher, G., 1970. The psycholytic treatment of a childhood schizophrenic girl. *International Journal of Social Psychiatry* 16, 112–130. URL: <https://doi.org/10.1177/002076407001600204>, doi:10.1177/002076407001600204.
- Fisher, G., 1997. Treatment of childhood schizophrenia utilizing LSD and psilocybin. *MAPS Bulletin* 7, 18–25. URL: <https://web.archive.org/web/20220201193708/https://maps.org/news-letters/v07n3/07318fis.html>.
- Flanagan, T.W., Nichols, C.D., 2018. Psychedelics as anti-inflammatory agents. *International Review of Psychiatry* 30, 363–375. URL: <https://doi.org/10.1080/09540261.2018.1481827>, doi:10.1080/09540261.2018.1481827.
- Foster, G., 2011. Albert Einstein on problem solving. URL: <https://web.archive.org/web/20220927144647/http://entersection.com/posts/1025-albert-einstein-on-problem-solving>.
- Fotiou, E., 2016. The globalization of ayahuasca shamanism and the erasure of indigenous shamanism. *Anthropology of Consciousness* 27, 151–179. URL: <https://doi.org/10.1111/anoc.12056>, doi:10.1111/anoc.12056.
- Frecska, E., Bokor, P., Winkelman, M., 2016. The therapeutic potentials of ayahuasca: possible effects against various diseases of civilization. *Frontiers in Pharmacology* 7, 35. URL: <https://doi.org/10.3389/fphar.2016.00035>, doi:10.3389/fphar.2016.00035.
- Friesen, P., 2022. Psychosis and psychedelics: historical entanglements and contemporary contrasts. *Transcultural Psychiatry* 59, 592–609. URL: <https://doi.org/10.1177/13634615221129116>, doi:10.1177/13634615221129116.

- Fusar-Poli, P., Estradé, A., Stanghellini, G., Venables, J., Onwumere, J., Messas, G., Gilardi, L., Nelson, B., Patel, V., Bonoldi, I., Aragona, M., Cabrera, A., Rico, J., Hoque, A., Otaiku, J., Hunter, N., Tamelini, M.G., Maschião, L.F., Puchivailo, M.C., Piedade, V.L., Kéri, P., Kpodo, L., Sunkel, C., Bao, J., Shiers, D., Kuipers, E., Arango, C., Maj, M., 2022. The lived experience of psychosis: a bottom-up review co-written by experts by experience and academics. *World Psychiatry* 21, 168–188. URL: <https://doi.org/10.1002/wps.20959>, doi:10.1002/wps.20959.
- de Geus, A., 1997. *The Living Company*. Harvard Business School Press.
- Gonzalez, D., Cantillo, J., Perez, I., Carvalho, M., Aronovich, A., Farre, M., Feilding, A., Obiols, J.E., Bouso, J.C., 2021. The Shipibo ceremonial use of ayahuasca to promote well-being: an observational study. *Frontiers in Pharmacology* 12. URL: <https://doi.org/10.3389/fphar.2021.623923>, doi:10.3389/fphar.2021.623923.
- Graham, O.J., Saucedo, G.R., Politi, M., 2022. Experiences of listening to icaros during ayahuasca ceremonies at centro takiwasi: an interpretive phenomenological analysis. *Anthropol Conscious* URL: <https://doi.org/10.1111/anoc.12170>, doi:10.1111/anoc.12170.
- Grob, C.S., Grigsby, J. (Eds.), 2021. *Handbook of Medical Hallucinogens*. The Guilford Press, New York; London.
- Grof, C., 1990. *The Stormy Search for the Self*. Jeremy P. Tarcher, Los Angeles.
- Grof, S., 2010. *Holotropic Breathwork: A New Approach to Self-Exploration and Therapy*. Excelsior Editions.
- Grof, S., 2019. *The Way of the Psychonaut Volume One: Encyclopedia for Inner Journeys*. Multidisciplinary Association for Psychedelic Studies (MAPS).
- Groisman, A., Dobkin de Rios, M., 2007. Ayahuasca, religion and the U.S. Supreme Court: cultural context and implications of a legal dispute. *ResearchGate* URL: <https://www.researchgate.net/publication/338194811>.
- Groisman, A., Sell, A.B., 1996. "Healing Power": cultural-neurophenomenological therapy of Santo Daime, in: Winkelman, M., Andritzky, W. (Eds.), *Yearbook of Cross-Cultural Medicine and Psychotherapy 1995*. VWB Verlag für Wissenschaft und Bildung, pp. 241–55. URL: <https://www.researchgate.net/publication/311946529>.
- Haden, M., Woods, B., 2020. LSD overdoses: three case reports. *J Stud Alcohol Drugs* 81, 115–118. URL: <https://doi.org/10.15288/jsad.2020.81.115>, doi:10.15288/jsad.2020.81.115.
- Halberstadt, A., Geyer, M., 2012. Do psychedelics expand the mind by reducing brain activity? URL: <https://web.archive.org/web/20230104143125/https://www.scientificamerican.com/article/do-psychedelics-expand-mind-reducing-brain-activity/>.
- Hamill, J., Hallak, J., Dursun, S.M., Baker, G., 2019. Ayahuasca: psychological and physiologic effects, pharmacology and potential uses in addiction and mental illness. *Current Neuropharmacology* 17, 108–128. URL: <https://doi.org/10.2174/1570159x16666180125095902>, doi:10.2174/1570159x16666180125095902.
- van der Hart, O., 2021. Trauma-related dissociation: An analysis of two conflicting models. *European Journal of Trauma & Dissociation* 5, 100210. URL: <https://doi.org/10.1016/j.ejtd.2021.100210>, doi:10.1016/j.ejtd.2021.100210.
- Hartogsohn, I., 2021. Set and setting in the Santo Daime. *Frontiers in Pharmacology* 12. URL: <https://doi.org/10.3389/fphar.2021.651037>, doi:10.3389/fphar.2021.651037.
- Hartogsohn, I., 2022. Modalities of the psychedelic experience: microclimates of set and setting in hallucinogen research and culture. *Transcultural Psychiatry* 59, 579–591. URL: <https://doi.org/10.1177/13634615221100385>, doi:10.1177/13634615221100385.
- Healy, D., 2008. *Mania: A Short History of Bipolar Disorder*. Johns Hopkins University Press, Baltimore.
- Hendricks, P.S., 2018. Awe: a putative mechanism underlying the effects of classic psychedelic-assisted psychotherapy. *Int Rev Psychiatry* 30, 331–342. URL: <https://doi.org/10.1080/09540261.2018.1474185>, doi:10.1080/09540261.2018.1474185.
- Henríquez-Hernández, L.A., Rojas-Hernández, J., Quintana-Hernández, D.J., Borkel, L.F., 2023. Hofmann vs. Paracelsus: do psychedelics defy the basics of toxicology?—a systematic review of the main ergolamines, simple tryptamines, and phenylethylamines. *Toxics* 11, 148. URL: <https://doi.org/10.3390/toxics11020148>, doi:10.3390/toxics11020148.
- Holoyda, B., 2020. The psychedelic renaissance and its forensic implications. *J Am Acad Psychiatry Law* URL: <https://jaapl.org/content/early/2020/01/16/JAAPL.003917-20>, doi:10.29158/JAAPL.003917-20.
- Hughes, C.E., Stevens, A., 2010. What can we learn from the Portuguese decriminalization of illicit drugs? *Br J Criminol* 50, 999–1022. URL: <https://doi.org/10.1093/bjc/azq038>, doi:10.1093/bjc/azq038.

- Huxley, A., 2004. *The Doors of Perception & Heaven and Hell*. Perennial Classics, New York.
- Huxley, A., Osmond, H., 2018. *Psychedelic Prophets: The Letters of Aldous Huxley and Humphry Osmond*. 48, McGill-Queen's University Press, Montreal Kingston London Chicago.
- James, E., Keppler, J., Robertshaw, T.L., Sessa, B., 2022. N,N-dimethyltryptamine and Amazonian ayahuasca plant medicine. *Human Psychopharmacology: Clinical and Experimental* 37. URL: <https://doi.org/10.1002/hup.2835>, doi:10.1002/hup.2835.
- Janikian, M., 2020. Bipolar and psychedelics: an investigation into the potential and risks. URL: <https://web.archive.org/web/20200618105616/https://psychedelicstoday.com/2020/05/11/bipolar-and-psychedelics/>.
- Janikian, M., Buller, K., Moore, J., 2021. PT260 – Benjamin Mudge – Ayahuasca and Bipolar: Pathways to a Protocol. August 31, 2021. URL: <https://psychedelicstoday.com/2021/08/31/pt260/>.
- Kaasik, H., Kreegipuu, K., 2020. Ayahuasca users in Estonia: ceremonial practices, subjective long-term effects, mental health, and quality of life. *Journal of Psychoactive Drugs* 52, 255–263. URL: <https://doi.org/10.1080/02791072.2020.1748773>, doi:10.1080/02791072.2020.1748773.
- Kaasik, H., Souza, R.C.Z., Zandonadi, F.S., Tófoli, L.F., Sussulini, A., 2020. Chemical composition of traditional and analog ayahuasca. *Journal of Psychoactive Drugs* 53, 65–75. URL: <https://doi.org/10.1080/02791072.2020.1815911>, doi:10.1080/02791072.2020.1815911.
- Katchborian-Neto, A., Santos, M.F.C., Vilas-Boas, D.F., dos Santos, E.G., Veloso, M.P., Bueno, P.C.P., Caldas, I.S., Soares, M.G., Dias, D.F., Chagas-Paula, D.A., 2022. Immunological modulation and control of parasitaemia by ayahuasca compounds: therapeutic potential for Chagas's disease. *Chem Biodivers* 19. URL: <https://doi.org/10.1002/cbdv.202200409>, doi:10.1002/cbdv.202200409.
- Katchborian-Neto, A., Santos, W.T., Nicácio, K.J., Corrêa, J.O., Murgu, M., Martins, T.M., Gomes, D.A., Goes, A.M., Soares, M.G., Dias, D.F., Chagas-Paula, D.A., Paula, A.C., 2020. Neuroprotective potential of ayahuasca and untargeted metabolomics analyses: applicability to Parkinson's disease. *Journal of Ethnopharmacology* 255, 112743. URL: <https://doi.org/10.1016/j.jep.2020.112743>, doi:10.1016/j.jep.2020.112743.
- Keller, E.F., 1983. *A Feeling for the Organism: The Life and Work of Barbara McClintock*. W.H. Freeman, San Francisco.
- Kettner, H., Rosas, F.E., Timmermann, C., Kärtner, L., Carhart-Harris, R.L., Roseman, L., 2021. Psychedelic communitas: intersubjective experience during psychedelic group sessions predicts enduring changes in psychological wellbeing and social connectedness. *Frontiers in Pharmacology* 12. URL: <https://doi.org/10.3389/fphar.2021.623985>, doi:10.3389/fphar.2021.623985.
- Khan, A., Pooja, V., Patil, J., Saldanha, D., 2021. Delusional parasitosis after sexual abuse. *Ind Psychiatry J* 30, S348–S349. doi:10.4103/0972-6748.328853.
- Klein, M., 1940. Mourning and its relation to manic-depressive states. *Int J Psychoanal* 21, 125–53. URL: <https://psycnet.apa.org/record/1940-04560-001>.
- Kuhfuß, M., Maldei, T., Hetmanek, A., Baumann, N., 2021. Somatic experiencing – effectiveness and key factors of a body-oriented trauma therapy: a scoping literature review. *Eur J Psychotraumatol* 12, 1929023. URL: <https://doi.org/10.1080/20008198.2021.1929023>, doi:10.1080/20008198.2021.1929023.
- Labate, B.C., Cavnar, C., 2013. *The Therapeutic Use of Ayahuasca*. Springer. URL: <https://doi.org/10.1007/978-3-642-40426-9>, doi:10.1007/978-3-642-40426-9.
- Labate, B.C., Jungaberle, H., 2011. *The Internationalization of Ayahuasca*. LIT Verlag.
- Lanius, R.A., Vermetten, E., Pain, C. (Eds.), 2010. *The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic*. Cambridge University Press, Cambridge, UK; New York.
- Lattin, D., 2022. Pioneering clergy of diverse religions embrace psychedelics. URL: <https://web.archive.org/web/20220421034536/https://www.lucid.news/pioneering-clergy-of-diverse-religions-embrace-psychedelics/>.
- Levine, P.A., 2015. *Trauma and Memory: Brain and Body in a Search for the Living Past: A Practical Guide for Understanding and Working with Traumatic Memory*. North Atlantic Books, Berkeley, California.
- Linehan, M.M., Wilks, C.R., 2015. The course and evolution of dialectical behavior therapy. *Am J Psychother* 69, 97–110. URL: <https://doi.org/10.1176/appi.psychotherapy.2015.69.2.97>, doi:10.1176/appi.psychotherapy.2015.69.2.97.

- Lysaker, P.H., Leonhardt, B.L., 2012. Agency: its nature and role in recovery from severe mental illness. *World Psychiatry* 11, 165–166. URL: <https://doi.org/10.1002/j.2051-5545.2012.tb00121.x>, doi:10.1002/j.2051-5545.2012.tb00121.x.
- Maercker, A., Cloitre, M., Bachem, R., Schlumpf, Y.R., Khoury, B., Hitchcock, C., Bohus, M., 2022. Complex post-traumatic stress disorder. *Lancet* 400, 60–72. URL: [https://doi.org/10.1016/S0140-6736\(22\)00821-2](https://doi.org/10.1016/S0140-6736(22)00821-2), doi:10.1016/S0140-6736(22)00821-2.
- Maia, L.O., Daldegan-Bueno, D., Wießner, I., Araujo, D.B., Tófoli, L.F., 2023. Ayahuasca’s therapeutic potential: what we know – and what not. *Eur Neuropsychopharmacol* 66, 45–61. URL: <https://doi.org/10.1016/j.euroneuro.2022.10.008>, doi:10.1016/j.euroneuro.2022.10.008.
- Malcolm, B., Thomas, K., 2021. Serotonin toxicity of serotonergic psychedelics. *Psychopharmacology (Berl.)* 239, 1881–1891. URL: <https://doi.org/10.1007/s00213-021-05876-x>, doi:10.1007/s00213-021-05876-x.
- Mastinu, A., Anyanwu, M., Carone, M., Abate, G., Bonini, S.A., Peron, G., Tirelli, E., Pucci, M., Ribauda, G., Oselladore, E., Premoli, M., Gianoncelli, A., Uberti, D.L., Memo, M., 2023. The bright side of psychedelics: latest advances and challenges in neuropharmacology. *Int J Mol Sci* 24, 1329. URL: <https://doi.org/10.3390/ijms24021329>, doi:10.3390/ijms24021329.
- Maté, G., 2018. *In the Realm of Hungry Ghosts: Close Encounters with Addiction*. Vermilion, London.
- Maté, G., 2019. *When the Body Says No: the Cost of Hidden Stress*. Vermilion.
- McCutcheon, R.A., Harrison, P.J., Howes, O.D., McGuire, P.K., Taylor, D., Pillinger, T., 2023. Data driven taxonomy for antipsychotic medication: a new classification system. *bioRxiv* URL: <https://doi.org/10.1101/2023.01.23.524854>, doi:10.1101/2023.01.23.524854.
- McLaren, K., 1997. *Rebuilding the Garden: Healing the Spiritual Wounds of Childhood Sexual Assault*. Laughing Tree Press, Columbia, California.
- Meckel Fischer, F., 2015. *Therapy with Substance: Psycholytic Psychotherapy in the Twenty First Century*. Muswell Hill Press, London.
- Mitchell, S., 2021. All experiences welcome: IFS and non-ordinary states with Stephanie Mitchell. URL: https://web.archive.org/web/20221015125355/https://sppc.org.pt/downloads/media/audio/stephanie_28may2021.mp3, <https://web.archive.org/web/20220120084606/https://internalfamilysystems.pt/multimedia/webinars/all-experiences-welcome-ifs-and-non-ordinary-states-stephanie-mitchell>.
- Moreira-Almeida, A., Cardeña, E., 2011. Diagnóstico diferencial entre experiências espirituais e psicóticas não patológicas e transtornos mentais: uma contribuição de estudos latino-americanos para o CID-11. *Braz J Psychiatry* 33, s21–s28. URL: <https://doi.org/10.1590/s1516-44462011000500004>, doi:10.1590/s1516-44462011000500004.
- de Mori, B.B., 2009. Words can doom. Songs may heal: ethnomusicological and indigenous explanations of song-induced transformative processes in Western Amazonia. *Curare* 32, 109–133. URL: <https://www.researchgate.net/publication/320456251>, <https://agem.de/en/curare/>.
- de Mori, B.B., 2020. Singing white smoke: tobacco songs from the Ucayali valley, in: Russell, A., Rahman, E. (Eds.), *The Master Plant. Tobacco in Lowland South America*. Routledge, pp. 89–106. URL: <https://doi.org/10.4324/9781003087052-7>, doi:10.4324/9781003087052-7.
- Morin, E.L., Garza, K.M., Aoued, H., Sannigrahi, S., Siebert, E.R., Howell, B.R., Walum, H., Sanchez, M.M., Dias, B.G., 2021. Profiling nonhuman primate germline RNA to understand the legacy of early life stress. *J Exp Zool A Ecol Integr Physiol* 337, 15–23. URL: <https://doi.org/10.1002/jez.2501>, doi:10.1002/jez.2501.
- Moskowitz, A., Dorahy, M.J., Schäfer, I. (Eds.), 2019. *Psychosis, Trauma, and Dissociation: Evolving Perspectives on Severe Psychopathology*. 2 ed., Wiley, Hoboken, NJ.
- Mosse, D., Pocobello, R., Saunders, R., Seikkula, J., von Peter, S., 2023. Introduction: Open Dialogue around the world – implementation, outcomes, experiences and perspectives. *Frontiers in Psychology* 13. URL: <https://doi.org/10.3389/fpsyg.2022.1093351>, doi:10.3389/fpsyg.2022.1093351.
- Mudge, B., 2016. The therapeutic potential of ayahuasca for people with bipolar disorder. URL: <https://youtu.be/d-gMAK9ZnRs>.
- Mudge, B., 2022. Ayahuasca protocol for treating bipolar disorder. URL: <https://web.archive.org/web/20221017132811/https://bipolardisorder.me/research-projects/>.

- Muru, A.I., Quinet, A., 2019. Una Isi Kayawa – Livro da cura do povo Huni Kuin do rio Jordão. Dantes. URL: <https://dantes.com.br/produto/una-isi-kayawa/>.
- Namkhai Norbu, C., 2008. Yantra Yoga: The Tibetan Yoga of Movement. Snow Lion Publications, Ithaca, N.Y.
- Narby, J., Pizuri, R.C., 2021. Plant Teachers: Ayahuasca, Tobacco, and the Pursuit of Knowledge. New World Library, Novato, California.
- Nayak, S., Gukasyan, N., Barrett, F.S., Erowid, E., Erowid, F., Griffiths, R.R., 2021. Classic psychedelic coadministration with lithium, but not lamotrigine, is associated with seizures: an analysis of online psychedelic experience reports. PsyArXiv URL: <https://doi.org/10.31234/osf.io/r726d>, doi:10.31234/osf.io/r726d.
- Nemu, D., 2019. Prejudice and neo-colonialism in the academic study of ayahuasca. URL: <https://youtu.be/Nhgdhz4W114>.
- Nesbit, M.O., Phillips, A.G., 2020. Tetrahydroprotoberberines: a novel source of pharmacotherapies for substance use disorders? Trends Pharmacol Sci 41, 147–161. URL: <https://doi.org/10.1016/j.tips.2019.12.007>, doi:10.1016/j.tips.2019.12.007.
- Neyra-Ontaneda, D., 2017. Psicosis inducida por ayahuasca: reporte de un caso. Rev Neuropsiquiatr 80, 265. URL: <https://doi.org/10.20453/rnp.v80i4.3241>, doi:10.20453/rnp.v80i4.3241.
- Noorani, T., 2022. Between a rock and a hard place: psychotomimesis in psychedelic science, in: Tollan, A. (Ed.), Breaking Convention: A Seismic Shift in Psychedelia. Strange Attractor Press, London, UK, pp. 60–74. URL: <https://strangeattractor.co.uk/>.
- Norman, F.F., López-Vélez, R., 2021. Delusional parasitosis: An unrecognized and underdiagnosed entity? Enferm Infecc Microbiol Clin (Engl Ed) 39, 221–222. URL: <https://doi.org/10.1016/j.eimc.2021.03.001>, doi:10.1016/j.eimc.2021.03.001.
- Oehen, P., Gasser, P., 2022. Using a MDMA- and LSD-group therapy model in clinical practice in Switzerland and highlighting the treatment of trauma-related disorders. Frontiers in Psychiatry 13. URL: <https://doi.org/10.3389/fpsy.2022.863552>, doi:10.3389/fpsy.2022.863552.
- Oikarinen, I., 2020. Forest medicines: case study of the understandings of health and elements of healing among practitioners of Amazonian Yawanawá shamanism. Master's thesis. University of Helsinki. URL: <https://helda.helsinki.fi/handle/10138/316949>.
- Oliveira, A.B., Silva, B.R., Trachtenberg, E., Filho, A.G., de Pinto Abreu, J.R., 2018. Virada maníaca induzida por ayahuasca em um homem com transtorno bipolar: relato de caso com revisão de literatura. Debates em Psiquiatria 8, 34–37. URL: <https://doi.org/10.25118/2763-9037.2018.v8.326>, doi:10.25118/2763-9037.2018.v8.326.
- Ona, G., Berrada, A., Bouso, J.C., 2021. Communalistic use of psychoactive plants as a bridge between traditional healing practices and Western medicine: a new path for the Global Mental Health movement. Transcultural Psychiatry 0, 13634615211038416. URL: <https://doi.org/10.1177/13634615211038416>, doi:10.1177/13634615211038416.
- Owl, S., 2022. Church of reality: Barbara McClintock on scientific mysticism and plant consciousness. URL: <https://web.archive.org/web/20221105154817/https://superbowl.substack.com/p/church-of-reality-barbara-mcclintock>.
- O'Shaughnessy, D.M., Berlowitz, I., 2021. Amazonian medicine and the psychedelic revival: considering the "dieta". Frontiers in Pharmacology 12, 471. URL: <https://doi.org/10.3389/fphar.2021.639124>, doi:10.3389/fphar.2021.639124.
- Palhano-Fontes, F., Barreto, D., Onias, H., Andrade, K.C., Novaes, M.M., Pessoa, J.A., Mota-Rolim, S.A., Osório, F.L., Sanches, R., dos Santos, R.G., Tófoli, L.F., de Oliveira Silveira, G., Yonamine, M., Riba, J., Santos, F.R., Silva-Junior, A.A., Alchieri, J.C., Galvão-Coelho, N.L., Lobão-Soares, B., Hallak, J.E.C., Arcoverde, E., de Oliveira, J.P.M., Araújo, D.B., 2018. Rapid antidepressant effects of the psychedelic ayahuasca in treatment-resistant depression: a randomized placebo-controlled trial. Psychological Medicine 49, 655–663. URL: <https://doi.org/10.1017/s0033291718001356>, doi:10.1017/s0033291718001356.
- Passie, T., 2018. The early use of MDMA ('ecstasy') in psychotherapy (1977–1985). Drug Sci Policy Law 4, 205032451876744. URL: <https://doi.org/10.1177/2050324518767442>, doi:10.1177/2050324518767442.
- Passie, T., Guss, J., Krähenmann, R., 2022. Lower-dose psycholytic therapy – a neglected approach. Frontiers in Psychiatry 13. URL: <https://doi.org/10.3389/fpsy.2022.1020505>, doi:10.3389/fpsy.2022.1020505.

- Perkins, D., Pagni, B.A., Sarris, J., Barbosa, P.C.R., Chenhall, R., 2022. Changes in mental health, wellbeing and personality following ayahuasca consumption: results of a naturalistic longitudinal study. *Frontiers in Pharmacology* 13. URL: <https://doi.org/10.3389/fphar.2022.884703>, doi:10.3389/fphar.2022.884703.
- Perkins, D., Ruffell, S.G.D., Day, K., Rubiano, D.P., Sarris, J., 2023. Psychotherapeutic and neurobiological processes associated with ayahuasca: a proposed model and implications for therapeutic use. *Front Neurosci* 16. URL: <https://doi.org/10.3389/fnins.2022.879221>, doi:10.3389/fnins.2022.879221.
- Pollan, M., 2018. *How to Change Your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence*. Penguin Press, New York.
- Preller, K.H., Burt, J.B., Ji, J.L., Schleifer, C.H., Adkinson, B.D., Stämpfli, P., Seifritz, E., Repovs, G., Krystal, J.H., Murray, J.D., Vollenweider, F.X., Anticevic, A., 2018. Changes in global and thalamic brain connectivity in LSD-induced altered states of consciousness are attributable to the 5-HT_{2A} receptor. *eLife* 7. URL: <https://doi.org/10.7554/elife.35082>, doi:10.7554/elife.35082.
- Pérez-Gil, L., 2001. The Yawanáwa medical system and its specialists: healing, power, and shamanic initiation. *Cadernos de Saúde Pública* 17, 333–344. URL: <https://doi.org/10.1590/S0102-311X2001000200008>, doi:10.1590/S0102-311X2001000200008.
- Raami, A., 2015. *Intuition unleashed: on the application and development of intuition in the creative process*. Doctoral thesis. Aalto University School of Arts, Design and Architecture. URL: <https://urn.fi/URN:ISBN:978-952-60-6108-5>.
- Raami, A., 2019a. Solving the impossible: how to harness three diverse intuitions in teams, in: *Developing Informed Intuition for Decision-Making*. Taylor & Francis, pp. 83–99. URL: <https://doi.org/10.1201/9780429298097-5>, doi:10.1201/9780429298097-5.
- Raami, A., 2019b. Towards solving the impossible problems, in: Cook, J.W. (Ed.), *Sustainability, Human Well-Being, and the Future of Education*. Springer International Publishing, Cham, pp. 201–233. URL: https://doi.org/10.1007/978-3-319-78580-6_6, doi:10.1007/978-3-319-78580-6_6.
- Rabin, R.A., Regina, M., Doat, M., Winter, J., 2002. 5-HT_{2a} receptor-stimulated phosphoinositide hydrolysis in the stimulus effects of hallucinogens. *Pharmacol Biochem Behav* 72, 29–37. URL: [https://doi.org/10.1016/s0091-3057\(01\)00720-1](https://doi.org/10.1016/s0091-3057(01)00720-1), doi:10.1016/s0091-3057(01)00720-1.
- Ratcliffe, M., 2017. *Real Hallucinations: Psychiatric Illness, Intentionality, and the Interpersonal World*. Philosophical psychopathology, The MIT Press, Cambridge, MA.
- Read, T., Papaspyrou, M. (Eds.), 2021. *Psychedelics and Psychotherapy: the Healing Potential of Expanded States*. Park Street Press, Rochester, Vermont.
- Reckweg, J.T., Uthaug, M.V., Szabo, A., Davis, A.K., Lancelotta, R., Mason, N.L., Ramaekers, J.G., 2022. The clinical pharmacology and potential therapeutic applications of 5-methoxy-N,N-dimethyltryptamine (5-MeO-DMT). *J Neurochem* 162, 128–146. URL: <https://doi.org/10.1111/jnc.15587>, doi:10.1111/jnc.15587.
- Rêgo, X., Oliveira, M.J., Lameira, C., Cruz, O.S., 2021. 20 years of Portuguese drug policy – developments, challenges and the quest for human rights. *Subst Abuse Treat Prev Policy* 16. URL: <https://doi.org/10.1186/s13011-021-00394-7>, doi:10.1186/s13011-021-00394-7.
- Rhodes, J., 2022. *Psychosis and The Traumatized Self*. Routledge. URL: <https://doi.org/10.4324/9781003044956>, doi:10.4324/9781003044956.
- Rhodes, J., O'Neill, N., Nel, P., 2018. Psychosis and sexual abuse: an interpretative phenomenological analysis. *Clin Psychol Psychother* 25, 540–549. URL: <https://doi.org/10.1002/cpp.2189>, doi:10.1002/cpp.2189.
- Dobkin de Rios, M., Rumrill, R., 2008. *A Hallucinogenic Tea, Laced with Controversy: Ayahuasca in the Amazon and the United States*. Praeger, Westport, Conn.
- Ritunnano, R., Bortolotti, L., 2021. Do delusions have and give meaning? *Phenomenol Cogn Sci* 21, 949–968. URL: <https://doi.org/10.1007/s11097-021-09764-9>, doi:10.1007/s11097-021-09764-9.
- Roberts, T.B., 2013. *The Psychedelic Future of the Mind*. Park Street Press, Rochester, Vermont.
- Roberts, T.B. (Ed.), 2020. *Psychedelics and Spirituality: The Sacred Use of LSD, Psilocybin, and MDMA for Human Transformation*. Park Street Press, Rochester, Vermont.
- Roelofs, K., 2017. Freeze for action: neurobiological mechanisms in animal and human freezing. *Philos Trans R Soc Lond B Biol Sci* 372, 20160206. URL: <https://doi.org/10.1098/rstb.2016.0206>, doi:10.1098/rstb.2016.0206.

- Ruffell, S., 2022. Ayahuasca: from the jungle to the lab. URL: https://youtu.be/v6tLEu_2i_w.
- Ruffell, S., Netzband, N., Bird, C., Young, A.H., Juruena, M.F., 2020. The pharmacological interaction of compounds in ayahuasca: a systematic review. *Brazilian Journal of Psychiatry* 42, 646–656. URL: <https://doi.org/10.1590/1516-4446-2020-0884>, doi:10.1590/1516-4446-2020-0884.
- Ruffell, S.G.D., Netzband, N., Tsang, W., Davies, M., Butler, M., Rucker, J.J.H., Tófoli, L.F., Dempster, E.L., Young, A.H., Morgan, C.J.A., 2021. Ceremonial ayahuasca in amazonian retreats—mental health and epigenetic outcomes from a six-month naturalistic study. *Frontiers in Psychiatry* 12. URL: <https://doi.org/10.3389/fpsyt.2021.687615>, doi:10.3389/fpsyt.2021.687615.
- Saiardi, A., Mudge, A.W., 2018. Lithium and fluoxetine regulate the rate of phosphoinositide synthesis in neurons: a new view of their mechanisms of action in bipolar disorder. *Transl Psychiatry* 8. URL: <https://doi.org/10.1038/s41398-018-0235-2>, doi:10.1038/s41398-018-0235-2.
- Santos, B.W.L., Moreira, D.C., dos Santos Borges, T.K., Caldas, E.D., 2022. Components of *Banisteriopsis caapi*, a plant used in the preparation of the psychoactive ayahuasca, induce anti-inflammatory effects in microglial cells. *Molecules* 27, 2500. URL: <https://doi.org/10.3390/molecules27082500>, doi:10.3390/molecules27082500.
- dos Santos, R.G., Bouso, J.C., Hallak, J.E.C., 2017. Ayahuasca, dimethyltryptamine, and psychosis: a systematic review of human studies. *Therapeutic Advances in Psychopharmacology* 7, 141–157. URL: <https://doi.org/10.1177/2045125316689030>, doi:10.1177/2045125316689030.
- dos Santos, R.G., Osório, F.L., Crippa, J.A.S., Hallak, J.E.C., 2016. Antidepressive and anxiolytic effects of ayahuasca: a systematic literature review of animal and human studies. *Revista Brasileira de Psiquiatria* 38, 65–72. URL: <https://doi.org/10.1590/1516-4446-2015-1701>, doi:10.1590/1516-4446-2015-1701.
- Sapoznikow, A., Walsh, Z., Tupper, K.W., Erowid, E., Erowid, F., 2019. The influence of context on ayahuasca experiences: an analysis of experience reports. *Journal of Psychedelic Studies* 3, 288–294. URL: <https://doi.org/10.1556/2054.2019.028>, doi:10.1556/2054.2019.028.
- Schwartz, R.C., 2021. *No Bad Parts: Healing Trauma & Restoring Wholeness with the Internal Family Systems model*. Sounds True, Boulder, Colorado.
- Schwartz, R.C., Sweezy, M., 2020. *Internal Family Systems Therapy*. 2 ed., Guilford Press, New York.
- Schweitzer, I., Maguire, K., Ng, C.H., 2005. Should bipolar disorder be viewed as manic disorder? Implications for bipolar depression. *Bipolar Disord* 7, 418–423. URL: <https://doi.org/10.1111/j.1399-5618.2005.00246.x>, doi:10.1111/j.1399-5618.2005.00246.x.
- Scull, A., 2022. *Desperate Remedies: Psychiatry's Turbulent Quest to Cure Mental Illness*. The Belknap Press of Harvard University Press, Cambridge, Massachusetts.
- Seikkula, J., 2019. Psychosis is not illness but a survival strategy in severe stress: a proposal for an addition to a phenomenological point of view. *Psychopathology* 52, 143–150. URL: <https://doi.org/10.1159/000500162>, doi:10.1159/000500162.
- Sessa, B., Meckel Fischer, F., 2015. Underground MDMA-, LSD- and 2-CB-assisted individual and group psychotherapy in Zürich: outcomes, implications and commentary. *Drug Sci Policy Law* 2, 2050324515578080. URL: <https://doi.org/10.1177/2050324515578080>, doi:10.1177/2050324515578080.
- Shulgin, A.T., Shulgin, A., 1991. *PiHKAL: A Chemical Love Story*. URL: https://www.erowid.org/library/books_online/pihkal/pihkal.shtml.
- Shulgin, A.T., Shulgin, A., 1997. *TiHKAL: The Continuation*. URL: https://www.erowid.org/library/books_online/tihkal/tihkal.shtml.
- Simão, A.Y., Gonçalves, J., Gradillas, A., García, A., Restolho, J., Fernández, N., Rodilla, J.M., Barroso, M., Duarte, A.P., Cristóvão, A.C., Gallardo, E., 2020. Evaluation of the cytotoxicity of ayahuasca beverages. *Molecules* 25, 5594. URL: <https://doi.org/10.3390/molecules25235594>, doi:10.3390/molecules25235594.
- Simon, D.P., Kreek, M.J., 2016. Cocaine, in: *Neuropathology of Drug Addictions and Substance Misuse*. Elsevier, pp. 5–13. URL: <https://doi.org/10.1016/b978-0-12-800212-4.00001-7>, doi:10.1016/b978-0-12-800212-4.00001-7.
- Sips, R., 2022. *The phenomenology of psychosis. A qualitative study investigating the lived experience of psychosis*. Doctoral thesis. KU Leuven. Leuven, Netherlands. URL: <https://www.researchgate.net/publication/368841082>.

- Soares-Weiser, K., Maayan, N., Bergman, H., Davenport, C., Kirkham, A.J., Grabowski, S., Adams, C.E., 2015. First rank symptoms for schizophrenia. *Cochrane Database of Systematic Reviews* URL: <https://doi.org/10.1002/14651858.cd010653.pub2>, doi:10.1002/14651858.cd010653.pub2.
- Somé, M., 1997. *Ritual: Power, Healing, and Community. The African Teachings of the Dagara*. Penguin/Arkana, New York.
- Sottile, R.J., Vida, T., 2022. A proposed mechanism for the MDMA-mediated extinction of traumatic memories in PTSD patients treated with MDMA-assisted therapy. *Frontiers in Psychiatry* 13. URL: <https://doi.org/10.3389/fpsy.2022.991753>, doi:10.3389/fpsy.2022.991753.
- Standish, L., 2019. Ayahuasca research in the US: meeting FDA and DEA regulations. URL: <https://web.archive.org/web/20221019174655/https://www.aimsinstitute.net/wp-content/uploads/2020/06/standish-2019-world-aya-conference.pdf>.
- Szmulewicz, A.G., Valerio, M.P., Smith, J.M., 2015. Switch to mania after ayahuasca consumption in a man with bipolar disorder: a case report. *Int J Bipolar Disord* 3. URL: <https://doi.org/10.1186/s40345-014-0020-y>, doi:10.1186/s40345-014-0020-y.
- Tähkä, V., 1993. *Mind and Its Treatment: A Psychoanalytic Approach*. International Universities Press, Madison, Conn.
- Tähkä, V., 2006. The nature and mediation of understanding in psychoanalytic interaction. *Scandinavian Psychoanalytical Review* 29, 81–92. URL: <https://doi.org/10.1080/01062301.2006.10592787>, doi:10.1080/01062301.2006.10592787.
- Tripsit.me, 2022. Drug combinations. URL: https://web.archive.org/web/20220510055033/https://wiki.tripsit.me/images/3/3a/Combo_2.png.
- Turkia, M., 2009. A computational model of affects, in: Dietrich, D., Fodor, G., Zucker, G., Bruckner, D. (Eds.), *Simulating the Mind. A Technical Neuropsychanalytical Approach*. Springer, pp. 277–289. URL: https://doi.org/10.1007/978-3-211-09451-8_11.
- Turkia, M., 2021. Vietnamese herbal opioid addiction treatment medication Heantos-4. SSRN URL: <https://doi.org/10.2139/ssrn.3790085>, doi:10.2139/ssrn.3790085.
- Turkia, M., 2022a. Self-treatment of depression and complex post-traumatic stress disorder (C-PTSD) with psilocybin – a retrospective case study. *ResearchGate* URL: <https://doi.org/10.13140/RG.2.2.20075.41764>, doi:10.13140/RG.2.2.20075.41764.
- Turkia, M., 2022b. Self-treatment of psychosis and complex post-traumatic stress disorder with LSD and DMT—A retrospective case study. *Psychiatry Res Case Rep* 1, 100029. URL: <https://doi.org/10.1016/j.psy.2022.100029>, doi:10.1016/j.psy.2022.100029.
- Turkia, M., 2022c. Underground small-group therapy of treatment-resistant depression and complex post-traumatic stress disorder (C-PTSD) with psilocybin – a retrospective case study. *ResearchGate* URL: <https://doi.org/10.13140/RG.2.2.24250.06089>, doi:10.13140/RG.2.2.24250.06089.
- Turkia, M., 2023. Touch and play—'spiritual attacks' in ayahuasca ceremonies. *ResearchGate* URL: <https://doi.org/10.13140/RG.2.2.11914.34247>, doi:10.13140/RG.2.2.11914.34247.
- Vallersnes, O.M., , Dines, A.M., Wood, D.M., Yates, C., Heyerdahl, F., Hovda, K.E., Giraudon, I., Dargan, P.I., 2016. Psychosis associated with acute recreational drug toxicity: a European case series. *BMC Psychiatry* 16, 293. URL: <https://doi.org/10.1186/s12888-016-1002-7>, doi:10.1186/s12888-016-1002-7.
- Verma, M., Grover, S., Chakrabarti, S., 2020. Effectiveness of clozapine on quality of life and functioning in patients with treatment-resistant schizophrenia. *Nord J Psychiatry* 75, 135–144. URL: <https://doi.org/10.1080/08039488.2020.1811374>, doi:10.1080/08039488.2020.1811374.
- Vermetten, E., Dorahy, M.J., Spiegel, D. (Eds.), 2007. *Traumatic Dissociation: Neurobiology and Treatment*. 1 ed., American Psychiatric Publishing, Washington, DC.
- Vermetten, E., Yehuda, R., 2019. MDMA-assisted psychotherapy for posttraumatic stress disorder: a promising novel approach to treatment. *Neuropsychopharmacology* 45, 231–232. URL: <https://doi.org/10.1038/s41386-019-0482-9>, doi:10.1038/s41386-019-0482-9.
- Walsh, R.N., Grob, C.S. (Eds.), 2005. *Higher Wisdom: Eminent Elders Explore the Continuing Impact of Psychedelics*. SUNY Series in Transpersonal and Humanistic Psychology, State University of New York Press, New York.

- Wangyal, T., Dahlby, M., 2002. *Healing with Form, Energy and Light: The Five Elements in Tibetan Shamanism, Tantra, and Dzogchen*. Snow Lion Publications, Ithaca, NY.
- Weisse, A.B., 2012. Self-experimentation and its role in medical research. *Tex Heart Inst J* 39, 51–4. URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3298919/>.
- Williams, K., Romero, O.S.G., Braunstein, M., Brant, S., 2022. Indigenous philosophies and the "psychedelic renaissance". *Anthropol Conscious* 33, 506–527. URL: <https://doi.org/10.1111/anoc.12161>, doi:10.1111/anoc.12161.
- Winblad, N.E., Changaris, M., Stein, P.K., 2018. Effect of somatic experiencing resiliency-based trauma treatment training on quality of life and psychological health as potential markers of resilience in treating professionals. *Front Neurosci* 12. URL: <https://doi.org/10.3389/fnins.2018.00070>, doi:10.3389/fnins.2018.00070.
- Wolff, T.J., 2020. *The Touristic Use of Ayahuasca in Peru: Expectations, Experiences, Meanings and Subjective Effects*. Springer VS.
- Wolynn, M., 2016. *It Didn't Start With You. How Inherited Family Trauma Shapes Who We Are and How to End the Cycle*. Viking, New York.
- Woods, A., Alderson-Day, B., Fernyhough, C. (Eds.), 2022. *Voices in Psychosis: Interdisciplinary Perspectives*. Oxford University Press, New York.
- Wrobel, A.L., Cotton, S.M., Jayasinghe, A., Diaz-Byrd, C., Yocum, A.K., Turner, A., Dean, O.M., Russell, S.E., Duval, E.R., Ehrlich, T.J., Marshall, D.F., Berk, M., McInnis, M.G., 2023. Childhood trauma and depressive symptoms in bipolar disorder: a network analysis. *Acta Psychiatr Scand* 147, 286–300. URL: <https://doi.org/10.1111/acps.13528>, doi:10.1111/acps.13528.
- Young, A.H., Juruena, M.F., 2020. The neurobiology of bipolar disorder, in: *Bipolar Disorder: From Neuroscience to Treatment*. Springer International Publishing, pp. 1–20. URL: https://doi.org/10.1007/7854_2020_179, doi:10.1007/7854_2020_179.
- Youngman, P.A., Hadzikadic, M. (Eds.), 2014. *Complexity and the Human Experience: Modeling Complexity in the Humanities and Social Sciences*. Pan Stanford Publ, Singapore.
- Yugler, S., 2021. Working with Internal Family Systems (IFS) therapy and psychedelics: everything you need to know. URL: <https://web.archive.org/web/20210407152231/https://psychedelicstoday.com/2021/04/07/internal-family-systems-ifs-therapy-and-psychedelics-explainer/>.