

1 Running Head: *Psychedelics and the Social Cure*

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Social identity processes as a vehicle for therapeutic success in psychedelic treatment:

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Harnessing the social cure

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1 **Abstract**

2 Background: The recent surge in psychedelics research has identified promising avenues for their
3 therapeutic use to treat conditions as diverse as anxiety, PTSD, anorexia, depression, and addiction. While
4 psychedelic-assisted therapy is indeed promising, its medicalized form still lacks a vital ingredient: a social
5 group dimension.

6
7 Aims: By embedding psychedelic use in group settings and capitalising on the capacity for these to tap into,
8 and build, social identities, we argue that the effects of psychedelic-assisted therapies could be amplified in
9 ways that mirror their potency in indigenous and community settings. This article outlines the theoretical
10 relevance of the ‘social cure’ model to this analysis by drawing on the well-established literature on social
11 identity and health. It draws on the strong empirical evidence base that supports this model to underscore
12 the vital contribution of groups and group contexts to the effects of psychedelics, while also highlighting
13 the importance of people’s social identity-based relationship to such groups.

14
15 Outcomes: We outline the practical implications of this approach for therapeutic practice and conclude by
16 identifying future directions and key challenges for social cure research in this field. These provide an
17 agenda for theory-informed work to investigate the effects of establishing and maintaining social identities
18 and group connections in the context of psychedelic treatment.

19
20 Conclusions: To the best of our knowledge, this is the first article that applies social cure theorising to
21 psychedelic-assisted therapies.

22
23 **Keywords:** psychedelics; psychedelic-assisted therapies; social cure; social identity; mental health;
24 wellbeing; group psychotherapy

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**Social identity processes as a vehicle for therapeutic success in psychedelic treatment:
 Harnessing the social cure**

There is emerging evidence that psychedelic-assisted therapies perform relatively well in comparison to placebo trials. Indeed, findings from meta-analysis indicate that effect sizes associated with these therapies are larger than those associated with typical psychopharmacological or psychotherapy interventions for a range of mental health conditions (Luoma et al., 2020). This is particularly evident in meta-analyses that have looked at the effects of psychedelic-assisted treatment to address (a) anxiety and depression in the context of life-threatening illness, (b) anxiety in autistic adults, and (c) PTSD and suicidality (Galvão-Coelho et al., 2021; Goldberg et al., 2020; Ko et al., 2023; Leger and Unterwald, 2022; Luoma et al., 2020; Romeo et al., 2020; Zeifman et al., 2022). These analyses also find little evidence of post-acute adverse effects. In turn, this evidence has stimulated considerable investment in psychedelics from both corporate and non-corporate sectors. For instance, in 2021 the Australian Federal Government launched plans to invest \$15m in trials of psychedelic treatments for mental illness (Muthukumaraswamy et al., 2022).

Yet while there is growing evidence to support psychedelic use and of their robust, relatively low-risk safety profile (Schlag et al., 2022), as things stand, psychedelics are typically delivered in individualised therapeutic settings. In contrast, other successful therapies increasingly use group-based delivery to accentuate positive outcomes (Cameron et al., 2018; Cruwys, Haslam, Rathbone, et al., 2022; Haslam et al., 2022; Meuret et al., 2016).

The contentious nature of psychedelic therapies appears to be the primary cause of this reluctance (Gardner et al., 2019). In particular, legal barriers and fears of being seen as ‘radical’ dampen practitioners’, researchers’ and funders’ willingness to embrace innovative psychedelic practice. Psilocybin or ayahuasca-based retreats are therefore legal in only a minority of countries and national frameworks that support legal psychedelic-assisted therapies rarely incorporate a group approach. And, while licensing boards have the power to determine the boundaries of professional practice, it is nevertheless the case that risks of criminal prosecution, litigation for malpractice, and harm to one’s professional reputation all weigh heavily on clinicians’ decisions to engage (or not engage) with psychedelic interventions. These same factors also affect their enthusiasm for group-based delivery of these treatments, as do negative representations of mass

1 psychedelic use in the 1960s (Pilecki et al., 2021). It is also the case that licensing boards can be risk-averse
2 and rule against clinicians in the event of a negative client experience or if there is a perceived risk of
3 reputational harm to the profession. So, while there can be ‘safety in numbers’ for more traditional
4 therapies, the opposite tends to be true when it comes to psychedelic treatments.

5 Other barriers to incorporating a group component into clinical trials relate to the
6 (over)simplification that the biomedical model requires. Psychedelics are researched through the apparatus
7 of randomised controlled trials, which is the gold standard in biological psychiatry. In that paradigm, any
8 contextual elements are often treated as superfluous when it comes to isolating a substance’s ‘pure’ effect
9 and considered additive to the treatment effect rather than bound up with it (Pronovost-Morgan et al.,
10 2023). Accordingly, a group component might be seen to add ‘noise’ to the data, in ways that make
11 conclusions less clear and less ‘scientific’. Studying treatment effects in groups also increases statistical
12 complexity because the individuals in a trial cannot be treated as independent.

13 In the present paper, we argue that there are several reasons why the socio-cultural and scientific
14 barriers to researching psychedelic treatment in group settings may be problematic. Primarily, this is
15 because there is now a large body of research informed by the social identity approach to health (also
16 referred to as the *social cure* model) which points to — and explains — the potential benefits of
17 delivering therapeutic interventions in groups and which more generally indicates that group and identity
18 processes are implicated in a range of positive health outcomes. As we will explain, the social cure model
19 hinges on the importance of people coming to identify with a group, rather than merely having contact
20 with other people in a group setting. In particular, it argues that it is social identification with a group that
21 allows individuals to access the social and psychological resources that the group provides (e.g., support,
22 agency and meaning) in ways that are beneficial for mental health (Cruwys et al., 2014).¹

23 At the same time, this body of work also alerts us to problems that group delivery can create and
24 how these might be avoided. These insights align with those which emerge from indigenous cultures and

¹ As an aside it is also worth noting that optimising ways of delivering psychedelic therapies to groups of participants would also provide a cost-effective alternative to the individualised treatment plans that currently predominate in the field. Given the length of time that therapists are required to support participants (eg 9h+ for LSD administration and/or months of psychotherapy for integration), this is a non-trivial consideration. On top of the social and psychological imperatives, there are thus economic reasons for wanting to put the social cure (back) into psychedelic treatments.

1 communities where the use of psychedelics is generally rooted in what can be conceptualised as a group-
 2 based social cure.

3 We develop these arguments by first reviewing the status of psychedelics research and therapies.
 4 We then draw on the social cure model to account for some of the effects and challenges of these therapies.
 5 On this basis, we go on to outline the practical implications of this approach for therapeutic practice and
 6 propose how to put the social cure (back) into psychedelic treatments. This includes steps to integrate social
 7 cure research into psychedelic practice with a view to increasing therapeutic effectiveness. Importantly,
 8 these also provide a framework for a much-needed program of scientific research. We conclude by
 9 identifying priorities for this research program and by reflecting more generally on the enormous potential
 10 that such research holds, while also considering some of the key challenges that this research confronts.

11

12 **Psychedelics and the group**

13 Recent research has found that psychedelics can enhance feelings of empathy (Dolder et al., 2016;
 14 Holze et al., 2021), group bonding (Kettner et al., 2021a), connectedness (Watts et al., 2022), social
 15 cognition (Preller and Vollenweider, 2019), social functioning (Markopoulos et al., 2022), and even
 16 sociality with nature in the form of animism (Letcher, 2013). Furthermore, a recent study showed that
 17 psychedelics can enhance metaplasticity and reopen the social learning critical period in adult mice (Nardou
 18 et al., 2023). Critically, though, this research also suggests that these outcomes are heavily dependent on
 19 features of both the therapeutic *set* and *setting* (Carhart-Harris et al., 2018a). More specifically, there is
 20 evidence that efficacy varies as a function of where the therapy takes place, who administers it, who
 21 receives it, as well as the interactions between these various elements.

22 In practical terms, this means that positive therapeutic psychedelic experiences are dependent on
 23 there being *trust and rapport* within the therapeutic environment; either with the therapist (Murphy et al.,
 24 2022a), the facilitator (Kettner et al., 2021a), or the ritual group with which the therapy is associated
 25 (Pontual et al., 2022). Trust and rapport have themselves also been shown to be contingent on such things
 26 as music (Eisner, 1997; Kaelen et al., 2018) and other identity-related sociocultural factors, including
 27 shared heritage and shared beliefs (Hartogsohn, 2020; Wallace, 1959).

28 More generally, there is clearly a bidirectional relationship between psychedelic use and
 29 psychosocial states. Just as psychedelics can create certain orientations and emotions, so too their impact is

1 contingent on the psychological state of the user (Roseman et al., 2022). Indeed, so pronounced is this inter-
2 relationship that some have argued that psychedelic consumption during the Palaeolithic era may have led
3 to biological adaptation in response to 5HT₂ mechanisms in areas as diverse serotonin, stress responses,
4 and visual systems (Rodríguez Arce and Winkelman, 2021; Winkelman, 2021). Yet, despite this, in the
5 context of the resurgence of psychedelic research and treatment, opportunities to increase the efficacy of
6 psychedelic-assisted therapies by attending to their social contextual dimensions have received relatively
7 little attention (Manson et al., 2023; Ponomarenko et al., 2023a; Trope et al., 2019). In particular, there
8 have been very few (if any) attempts to capitalise on the proven capacity for group life and related identity
9 dynamics to deliver a social cure (for reviews see (SA Haslam et al., 2018; Muldoon et al., 2019). Given the
10 origins of psychedelic use in the practices of diverse cultural groups and indigenous communities, this is
11 surprising to say the least (Magar et al., 2023).

12 At the same time, it is important to note that the ritualistic use of psychedelics is not limited to
13 ‘traditional’ or indigenous cultures. In the Northern hemisphere, and indeed much of the industrialised
14 world, neo-shamanic or neo-tribal practices abound, whether underground or legally sanctioned (John,
15 2010; Langdon, 2013; Scuro and Rodd, 2015). Moreover, when psychedelics are used recreationally this is
16 often in a group setting, and therapeutic gatherings often have a group dimension. In these contexts too, the
17 group bonds and emotional sharing that often accompany psychedelic experiences have been observed to
18 contribute to long-term changes in a person’s sense of social connection and, through this, their mental
19 health (Cowley-Court et al., 2023; Ona et al., 2022). For example, this pattern has been observed (a) in
20 longitudinal studies of guided retreats and ceremonies where well-being is enhanced by the sense of
21 connection that these create (Kettner et al., 2021a), (b) in SEM analyses of illegal ‘raves’ in the UK where
22 both psychedelically induced transformative experiences and co-operation are enhanced by a sense of
23 identity fusion such that individuals’ perceive a sense of oneness with the group (Newson et al., 2021), and
24 (c) in multiple field studies of festivals in the UK and the USA where psychedelic consumption improves
25 affect only to the extent that it is accompanied by a sense of personal transformation (Forstmann et al.,
26 2020). A common thread in all this research is that while participants are typically seeking *personal* healing
27 through their participation in these various activities, they quickly realize that it is the *social and relational*
28 aspects of their experiences that are the real medicine (Aronovich, 2019).

1 Beyond the ritual sphere, psychedelic group therapy is also common as an underground practice,
2 and it is evident that here too group life has a crucial therapeutic role to play (Fischer, 2015; Stolaroff,
3 2004). Indeed, this was the conclusion of psychedelic group therapists in the 1960s (Trope et al., 2019),
4 and, mindful of this, modern psychedelic studies sometimes include group therapy sessions between
5 psychedelic sessions (Anderson et al., 2020; Manson et al., 2023). Although these are rarely integrated into
6 the psychedelic session itself, the addition of such group activities appears to have encouraging results. In
7 particular, advocates point to the capacity for therapy groups to create a positive sense of social cohesion
8 and belonging, which promotes feelings of safety and thereby helps participants to process and deal with
9 trauma (Agin-Liebes et al., 2021).

10 Perhaps the most promising case of modern psychedelic group therapy comes from a practice in
11 Switzerland where a three-day course of LSD and MDMA group-assisted therapy has been found to
12 ameliorate treatment-resistant trauma-related disorders, depression, and anxiety in groups of between 5 and
13 13 people (Oehen and Gasser, 2022). Here, treatment is delivered without the eyeshades or headphones that
14 are commonplace in many psychedelic-assisted therapies. In this way, rather than being a socially isolating
15 experience, the treatment is socially immersive in so far as participants *share* their experiences with others
16 — and indeed openly discuss their experiences together on the third day of treatment. Through this sharing
17 process, then, participants come to work collectively on their challenges *as a group* and this group
18 subsequently becomes a *resource* for healing (Oehen and Gasser, 2022). Moreover, because participants in
19 the program have four collective experiences with psychedelics over a 12-month period, this creates an
20 opportunity for their sense of group connectedness to strengthen over time. Similarly, cancer patients
21 receiving group-based psilocybin-assisted psychotherapy have been found to have reduced depression 2-
22 and 26-weeks post-intervention (Lewis et al., 2023).

23 This Swiss treatment is a legal form of psychedelic therapy that is delivered by licensed
24 therapists, but it is permissible only when clients are resistant to standard treatments (Oehen and Gasser,
25 2022; Ponomarenko et al., 2023a). However, the effectiveness of the *group* elements that it includes have
26 not yet been formally evaluated. Together with the aforementioned caution around psychedelic treatments,
27 the absence of definitive evidence has prevented such practices from being taken up within the medical
28 system. Nevertheless, alongside the renewed interest in psychedelic-assisted group psychotherapy, this case
29 points to the fact that psychedelic treatment *can* have a group component and that this has the potential to

1 be beneficial. Importantly, though, as with all other work in this area, the extant literature does not offer a
2 framework for understanding the influence of group processes on treatment outcomes. This, though, is
3 something that we can derive from the social cure model — and the social identity approach to health more
4 generally.

5

6 **Social identity and the social cure**

7 The social identity approach to health provides an integrated theoretical framework for
8 understanding precisely how group dynamics and associated social identities can shape the health outcomes
9 of psychedelic use. Social identity refers to the subjective sense of self that people derive from their
10 membership in social groups — whether they be family, community, or treatment groups (SA Haslam et al.,
11 2018). To the extent that people identify with a given group (so that the group defines their sense of self in
12 a given context), social identities have been observed to play a critical role in shaping their values, attitudes,
13 and behaviours in different situations (Haslam et al., 2019a; Turner, 2004). For example, if a person
14 identifies as a supporter of a particular football club, then their thoughts and emotions will be heavily
15 structured by this group membership — so that, amongst other things, that their mood will vary as a
16 function of the changing fortunes of their team (Boen et al., 2020; Newson et al., 2020).

17 At the same time too, social identities also provide people with tangible psychological resources
18 that they can draw on when experiencing challenge or adversity (SA Haslam et al., 2018). In particular,
19 they are the basis for social support and a sense of control, self-esteem, and meaning and purpose in life.
20 For example, the fan who identifies highly with their team can turn to other fans of that team for support if
21 their team is defeated, and their collective struggles give them a sense of control, agency, and purpose (in a
22 way that is not true for those who do not identify with the team (Haslam et al., 2012).

23 More generally, the social identity approach to health provides an integrated theoretical framework
24 from which a series of hypotheses can be generated concerning the importance of social identities for
25 people's physical and mental health (C Haslam et al., 2018; Jetten et al., 2012). As Tarrant et al. observe
26 (Tarrant et al., 2012), health does not occur in a social vacuum. Where social groups are recognised and
27 embraced as a vehicle for change, this can promote improved mental health and wellbeing in the form of a
28 social cure. Indeed, meta-analysis shows that clinical interventions which build social identification have a
29 moderate-to-strong positive impact on participants' health (Steffens et al., 2021a). Social connectedness to

1 both relational groups (e.g., friends or family) and more extended groups (e.g., one’s country or even all of
 2 humanity) have also been found to predict better mental health and wellbeing in large, global samples
 3 (Tunçgenç et al., 2023).

4 We outline some of the synergetic relations between psychedelics and the social cure that can lead
 5 to improved health and wellbeing in Figure 1. The key idea is that on the one hand, different elements of
 6 the psychedelic experience can support and help to build a sense of shared social identity, such as ego
 7 dissolution (Devenot et al., 2022; Dupuis, 2022), shared experience and associated bonding (Kettner et al.,
 8 2021a; MacLean et al., 2012; Murphy et al., 2022a; Newson et al., 2021; Roseman et al., 2019), sensitivity
 9 to culture and neural plasticity (Nardou et al., 2023; Rodríguez Arce and Winkelman, 2021), and enhanced
 10 self-disclosure (Kettner et al., 2021b; Ponomarenko et al., 2023b). On the other hand, different aspects of
 11 the social cure provide a platform for a safe and effective psychedelic experience, which is known to be
 12 context-dependent (Carhart-Harris et al., 2018b) – pivoting around, for instance, trust and belonging
 13 (Murphy et al., 2022b; Pontual et al., 2022), meaning and purpose (Cruwys et al., 2014; C Haslam et al.,
 14 2018), and agency or self-efficacy (Jetten et al., 2017). Overall, then, psychedelics and the social cure are
 15 hypothesised to interact with each other to make psychedelic-assisted therapies more effective.

16

17 **Fig. 1** Hypothesised pathways to improved mental health and wellbeing via psychedelic-assisted therapies
 18 in synergy with the social cure.

19 *Insert Figure 1 Here*

20 *Note:* Elements that can support and help to build a sense of shared social identity include: (a) ego
 21 dissolution and a flexible identity structure which can lead to a reconfiguration of identities; (b)
 22 the emotional intensity of the *shared* psychedelic mystical and cathartic experiences, which can lead to
 23 identity fusion by a similar mechanism to other rituals with intense emotional experience (c) enhanced
 24 connectedness and *communitas*, which can improve relations and enhance identification between group
 25 members; (d) increased sensitivity to cultural elements such as music and ritual which can enhance
 26 sociality and belonging; (e) the opening of a plasticity window which can lead to social (re-)learning;
 27 and (f) enhanced self-disclosure during integration sessions which can increase belonging, intimacy and a
 28 sense of being seen. In return, different aspects of the social cure provide a platform for a safe and
 29 effective psychedelic experience, including a sense of shared social identity that provides a basis for a
 30 sense of: (a) mutual social support, belonging and trust, (b) meaning and purpose, and (c) agency and
 31 self-efficacy — all of which increase the likelihood of participants having a meaningful and safe

1 psychedelic experience.

2

3 The social cure approach differs from other approaches to group therapy in emphasising the
 4 crucial contribution that group-based social identities make to the therapeutic process — and to health more
 5 generally. Key here is the difference between simply ‘showing up’ at social activities, making a single
 6 friend or having one-on-one contact, versus internalizing a given group as part of one’s social identity so
 7 that the group is a subjectively meaningful point of self-reference and understanding (Cruwys et al., 2014).
 8 Beyond group therapy sessions that merely facilitate group contact, the social cure approach suggests that,
 9 above all else, participants must identify with any group they join to realise the benefits of group
 10 membership. It is this social identification that is therefore hypothesised to be the active ingredient in any
 11 group-based approach to psychedelic-assisted therapy and to be critical for unlocking the potential of that
 12 therapy.

13 In the last two decades, studies around the world have confirmed that social cure processes have a
 14 positive impact on such things as depression, physical health, cognitive health, and wellbeing (Haslam et
 15 al., 2018). Indeed, these effects have been reported in over 25 countries and all populated continents (van
 16 Dick et al., 2019). The capacity for social cure research to inform practice has also been confirmed by a
 17 range of intervention studies. This is perhaps most clearly evidenced through clinical trials of the GROUPS 4
 18 HEALTH program, in which efforts to build and consolidate social identity amongst members of vulnerable
 19 groups have been shown to ameliorate social anxiety, loneliness, and depression (relative to treatment-as-
 20 usual and gold-standard treatments including cognitive-behaviour therapy; Cruwys, Haslam, Rathbone, et
 21 al., 2022; Haslam et al., 2019b).

22 At the same time, there can be challenges associated with giving people access to this social cure
 23 — not least because it is at odds with hegemonic medical models that focus on the individual as a preferred
 24 unit of treatment (Williams et al., 2019). Nevertheless, despite (or perhaps partly because of) this, the social
 25 identity model appears well-suited to the challenges of improving the efficacy of psychedelic-assisted
 26 therapies. With this in mind, in what follows we offer suggestions as to how researchers and practitioners of
 27 psychedelic-assisted therapies might draw on the lessons learned from social cure research to increase the

1 efficacy of their psychedelic treatments. We also reflect further on the challenges that a social cure
 2 approach to psychedelic-assisted therapies is likely to present.

3

4 **Future directions for group-based psychedelic treatment**

5 Based on the extensive research and applied practice that supports the social identity approach to
 6 health, we propose that the social cure can be (re-)injected into psychedelic-assisted therapies, largely via
 7 integrating social cure research into psychedelic practices and aligning with future psychedelics research.
 8 These are summarised in Figure 2 and are expanded upon in the Supplementary Materials. It is perhaps
 9 worth noting at the outset that the idea of harnessing groups to build identity in psychedelic therapies may,
 10 at first blush, seem counterintuitive — since it is at odds with the idea that psychedelically-induced states
 11 involve the *dissolution* of identity (Nour et al., 2016).

12

13 **Fig. 2** Five steps to integrate social cure research into psychedelic practices and two future directions for
 14 research

15 *Insert Figure 2 Here*

16

17 Here, though, we would note that the social identity approach is centred on the claim that identity
 18 can be — and often is — defined at multiple levels of abstraction (Turner et al., 1987). Accordingly, the
 19 loss of identity at one level (the individual-based and personal) can be associated with the *gain* of identity at
 20 another (the group-based and social). This idea is captured in Table 1 and we hope this will be a catalyst for
 21 future research that explores these issues in the context of psychedelic treatments. Indeed, we suggest that it
 22 is precisely this capacity for the self to be redefined by social context that is at the heart of many people’s
 23 experience with psychedelics. This is seen, for example, in Michael Pollan’s reflections that:

24 [I]n order to make sense of the divide that had opened up in my perspective, I would need a
 25 whole new first-person pronoun ... In fact I hesitate to use the “I” to denote my presiding
 26 awareness, it was so different from my usual first person. (Pollan, 2018)

27

28 *Insert Table 1 Here*

29

1 Pollan’s quote speaks to the fact that there are many examples of psychedelic therapists,
2 researchers, and patients who have informally identified the relevance — and benefits — of group identities
3 and social connections in the context of psychedelic experiences. Our sense, then, is that the social identity
4 approach affords the potential to formalise such insights in ways that ground psychedelic-assisted therapies
5 in evidence-based theory. As the proposed steps demonstrate, this in turn can provide a structured
6 framework to guide both future research and optimal therapeutic practice.

7

8 **Potential challenges and limitations**

9 Elsewhere, extensive literature has already examined the controversial ethical terrain surrounding
10 medicalised use of psychedelics. This speaks to issues of informed consent (e.g., relating to the challenges
11 of opting out of treatment once it has begun, unrealistic expectations due to media coverage, and
12 consequences for high-risk groups) as well as concerns about the ‘underground’ use of psychedelics,
13 commercialization, and regulation/legalization (Smith and Appelbaum, 2022). The use of psychedelics in
14 group settings presents additional challenges, not least because of the need to work with many clients at the
15 same time. Nevertheless, we believe that practitioners’ capacity to navigate these can be enhanced by
16 learning from group treatments that have been informed by the social cure model and have been found to be
17 both practical and effective (Cruwys, Haslam, Haslam, et al., 2022; Steffens et al., 2021b).

18 More specifically, this research suggests that there are three major ethical issues that arise in the
19 context of group-based psychedelic-assisted therapies. The first of these is that under certain circumstances
20 participants who take part in group-based psychedelic treatments may be adversely affected by group
21 dynamics and internalise others’ negative emotions and experiences (Schury et al., 2020). This is
22 particularly likely where the group is divided or where it has (or develops) problematic norms (Dingle et
23 al., 2015; Tarrant et al., 2012). Similarly, there are potential dangers in group therapy that may be more
24 pronounced and ethically sensitive in the psychedelic arena, including the risk of certain individuals being
25 excluded from the group’s bond, the enhanced influence of facilitators and ensuing unhealthy power
26 dynamics, and the increased suggestibility of participants which can be abused by facilitators or other group
27 members either knowingly or subconsciously.

28 Accordingly, therapists need to be trained to lead such sessions in ways that enable them to
29 manage these dynamics constructively, notably by developing skills of *identity leadership* that help the

1 group to build and promote a positive sense of shared social identity withing a given therapeutic group (Lee
2 et al., 2021).

3 Second, a core premise of the social cure is that if participants identify with a target group and
4 come to trust it, they will be more likely to bond with the group and to benefit from the resources that it
5 provides (Jetten et al., 2012). However, if the group itself is defined in opposition to, or is at odds with, the
6 world at large — as can sometimes be the case with groups that use psychedelics — this may be a source of
7 ‘social curse’ (Kellezi and Reicher, 2012) because the group feels devalued and disparaged by the broader
8 community and hence is unable to benefit from the resources that this larger group might provide. This
9 means, for example, that stigmatizing media portrayals of psychedelic counterculture have the capacity to
10 be harmful for vulnerable participants who strongly identify with a psychedelic treatment group. Under
11 such circumstances, therapists and facilitators need to provide safeguards to minimise this potential for
12 harm, and again they can do this through strategies of identity leadership that are recognised as a basis for
13 collective resilience and growth.

14 Finally, third, there are challenges associated with cultural adaptations of psychedelic therapies
15 that practitioners need to be sensitive to if they are planning to apply the social cure model globally. In this
16 regard, the lack of cultural sensitivity in adaptations of other psychological therapies is something of an
17 object lesson — showing, as it does, how therapeutic treatments that emerge in the Global North tend still
18 to be tailored (only) to the needs and perspective of white clients. As antidote to this, recent research in
19 which psychedelic doses of ketamine were given to a small group of First Nations people sought first to
20 engage closely with these indigenous people’s voices and traditions, e.g., through a focus on between-
21 participant relationships (Manson et al., 2023).

22 In the case of psychedelic treatments, there is also the reverse problem that the practices of groups
23 and cultures outside the Global North can be appropriated in ways that are both insensitive and problematic.
24 In this regard, we would note that the applications of the social identity approach to health need always to
25 be sensitive to the identity-related concerns of groups who both develop and receive psychedelic treatment.
26 Amongst other things, this means that practitioners need to be attuned to the potential importance of
27 identities that have been shown to be important by advocates of the ADDRESS approach (identities
28 associated with Age, Developmental and acquired Disabilities, Religion, Ethnicity, Socioeconomic
29 status, Sexual orientation, Indigenous heritage, Native origin, and Gender; (Hays, 2001). This is a complex

1 task in all forms of group therapy (Tarrant et al., 2020), but it is also one that can be supported by a process
2 of social identity mapping that seeks both to understand the nature and diversity of the groups and identities
3 that people bring to a therapeutic context and to draw upon these in productive ways (Cruwys et al., 2016).

4 More generally, though, it is important to recognise that while social groups are a constant across
5 all human cultures, their social identities differ markedly. Accordingly, rather than simply adapting
6 therapies for different cultures, it is important to ensure that clinicians, facilitators and therapists are well
7 trained in cultural competency and sensitivity so that they can tune in to these different identities and work
8 with them rather than against them (Manson et al., 2023).

9

10 **Conclusion**

11 For working purposes, you might separate the personal, the community and the planet, but
12 within the vision, the cosmology of Indigenous communities of the Amazon rainforest, you
13 do not separate the individual from the community from the planet, that's fictitious.

14 Individual health is collective health, collective health includes the territory. We're talking
15 about one ecosystem which is inseparable and it's very important to view it as one. *Miguel*
16 *Evanjuanoy* (Hartman, 2023)

17 With mental health providers reaching crisis point in many nations, the need for innovative
18 solutions to support individuals and their families and communities has never been greater. The new wave
19 of psychedelic-assisted therapies may help to meet some of these needs but, unlike most other medical
20 treatments, psychedelics are extensively self-prescribed and used recreationally in diverse ways. Their use
21 ranges from micro-dosing to week-long transformative, endurance-like experiences at events such as
22 Burning Man in the Nevada desert. In contrast to the relatively robust safety profile of therapeutic
23 psychedelics, the risks associated with underground use can be considerable and they are increasing due
24 to an ever-growing population of non-medicalised psychedelic users psychiatric support to make sense of
25 often intense experiences that can occur in challenging or unsafe environments. These risks relate to such
26 things as unknown or incorrect dosing, contaminated drugs, poorly understood risk factors (e.g., history
27 or family history of psychosis), and lack of appropriate medical and psychosocial support.

28 Against this complex backdrop, the need to find safe ways for researchers and clinicians to
29 explore and harness the benefits of group-based psychedelic therapies and integration practices is crystal

1 clear. Yet it is something of an understatement to observe that this need has not yet been met by clinical
2 research. Indeed, the surface of possibilities has barely been scratched. Our hope, though, is that the
3 strategies and directions that we have proposed above can pave the way to a more unified, theoretically
4 coherent approach to group-focused psychedelic research and practice. This approach should be beneficial
5 not only for researchers and clinicians but also for those who seek out therapy to improve their physical and
6 mental health, as well as for their families and wider communities.

7 In this review, we have made the case that the social cure model is highly applicable to
8 psychedelic therapies. Alongside the general observations we have made based on previous theory and
9 research informed by the social identity approach to health, for us this raises the possibility that without
10 other people to bond with during the experience, psychedelic treatments are selling themselves short. But
11 whether this is the case, and to what extent, is currently unknown. Substantial work is thus needed both to
12 establish an evidence base that would explore this possibility and to test our various claims. On top of this,
13 we need to work with relevant professional bodies to inform and train therapists who can contribute to this
14 effort and potentially also leverage the social cure in their own practice.

15 Despite the ethical and practical challenges it presents, we believe that this work is manifestly
16 practical and worthwhile. By integrating psychology's well-evidenced social cure model with insights from
17 anthropological and sociological research that has identified important lessons from traditional and
18 indigenous practices as well as contemporary underground use, there are very good prospects for the
19 significant advances recently made in psychedelic-assisted therapies to be further amplified via feelings of
20 identity-based belonging. Our confidence in these prospects is increased by the fact that the social cure
21 model has previously worked well as a basis for interventions that have successfully tackled a wide range
22 of health conditions in a wide range of health contexts. However, in line with the observations of Miguel
23 Evanjuanoy, the model would seem to be peculiarly well-suited to the task of improving psychedelic
24 treatments — given that opportunities to explore and benefit from the social dimensions of self are a core
25 part of what such treatments offer. In short, there are grounds for believing that, at their best, psychedelic
26 treatments *are* a social cure. It is time to realise the full meaning and the full potential of this observation.

1 References

- 2 Agin-Liebes, G., Ekman, E., Anderson, B., Malloy, M., Haas, A., & Woolley, J. (2021). Participant
3 Reports of Mindfulness, Posttraumatic Growth, and Social Connectedness in Psilocybin-Assisted
4 Group Therapy: An Interpretive Phenomenological Analysis. *Journal of Humanistic Psychology*,
5 002216782110229. <https://doi.org/10.1177/00221678211022949>
- 6 Anderson, B. T., Danforth, A., Daroff, P. R., Stauffer, C., Ekman, E., Agin-Liebes, G., Trope, A., Boden,
7 M. T., Dilley, P. J., Mitchell, J., & Woolley, J. (2020). Psilocybin-assisted group therapy for
8 demoralized older long-term AIDS survivor men: An open-label safety and feasibility pilot study.
9 *EClinicalMedicine*, 27, 100538. <https://doi.org/10.1016/j.eclinm.2020.100538>
- 10 Aronovich, A. (2019). *Ayahuasca as Relational Medicine: Intimate Encounters at the Frontiers World*
11 *Ayahuasca Conference, Girona, Spain.*
- 12 Barker, J. B., Haslam, S. A., Fransen, K., Slater, M. J., White, C., Mertens, N., Haslam, S. A., Fransen,
13 K., & Boen, F. (2020). *Team identity development*. 223–241.
- 14 Bentley, S. V., Greenaway, K. H., Haslam, S. A., Cruwys, T., Steffens, N. K., Haslam, C., & Cull, B.
15 (2020). Social identity mapping online. *Journal of Personality and Social Psychology*, 118(2), 213–
16 241. <https://doi.org/10.1037/pspa0000174>
- 17 Bickerdike, L., Booth, A., Wilson, P. M., Farley, K., & Wright, K. (2017). Social prescribing: Less
18 rhetoric and more reality. A systematic review of the evidence. *BMJ Open*, 7(4), e013384.
19 <https://doi.org/10.1136/bmjopen-2016-013384>
- 20 Boen, F., Wann, D. L., Bernache-Assollant, I., Haslam, S. A., Fransen, K., Haslam, S. A., Fransen, K., &
21 Boen, F. (2020). *Fan behaviour and loyalty*. 303–319.
- 22 Bowe, M., Gray, D., Stevenson, C., McNamara, N., Wakefield, J. R. H., Kellezi, B., Wilson, I.,
23 Cleveland, M., Mair, E., Halder, M., & Costa, S. (2020). A social cure in the community: A mixed-
24 method exploration of the role of social identity in the experiences and well-being of community
25 volunteers. *European Journal of Social Psychology*, 50(7), 1523–1539.
26 <https://doi.org/10.1002/ejsp.2706>

- 1 Cameron, J. E., Voth, J., Jaglal, S. B., Guilcher, S. J. T., Hawker, G., & Salbach, N. M. (2018). “In this
2 together”: Social identification predicts health outcomes (via self-efficacy) in a chronic disease self-
3 management program. *Social Science & Medicine*, 208, 172–179.
4 <https://doi.org/10.1016/j.socscimed.2018.03.007>
- 5 Carhart-Harris, R. L., Roseman, L., Haijen, E., Erritzoe, D., Watts, R., Branchi, I., & Kaelen, M. (2018).
6 Psychedelics and the essential importance of context. *Journal of Psychopharmacology (Oxford,*
7 *England)*, 32(7), 725–731. <https://doi.org/10.1177/0269881118754710>
- 8 Cowley-Court, T., Chenhall, R., Sarris, J., Bouso, J. C., Tófoli, L. F., Opaleye, E. S., Schubert, V., &
9 Perkins, D. (2023). Life after Ayahuasca: A Qualitative Analysis of the Psychedelic Integration
10 Experiences of 1630 Ayahuasca Drinkers from a Global Survey. *Psychoactives*, 2(2), 201–221.
- 11 Cruwys, T., Haslam, C., Rathbone, J. A., Williams, E., Haslam, S. A., & Walter, Z. C. (2022). Groups 4
12 Health versus cognitive-behavioural therapy for depression and loneliness in young people:
13 Randomised phase 3 non-inferiority trial with 12-month follow-up. *The British Journal of*
14 *Psychiatry*, 220(3), 140–147. <https://doi.org/10.1192/bjp.2021.128>
- 15 Cruwys, T., Lee, G. C., Robertson, A. M., Haslam, C., Sterling, N., Platow, M. J., Williams, E., Haslam,
16 S. A., & Walter, Z. C. (2023). Therapists who foster social identification build stronger therapeutic
17 working alliance and have better client outcomes. *Comprehensive Psychiatry*, 124, 152394.
18 <https://doi.org/10.1016/j.comppsy.2023.152394>
- 19 Cruwys, T., Saeri, A. K., Radke, H. R. M., Walter, Z. C., Crimston, C. R., & Ferris, L. J. (2019). Risk and
20 protective factors for mental health at a youth mass gathering. *European Child & Adolescent*
21 *Psychiatry*, 28(2), 211–222. <https://doi.org/10.1007/s00787-018-1163-7>
- 22 Cruwys, T., Steffens, N. K., Haslam, S. A., Haslam, C., Hornsey, M. J., McGarty, C., & Skorich, D. P.
23 (2020). Predictors of social identification in group therapy. *Psychotherapy Research*, 30(3), 348–
24 361.
- 25 Cruwys, T., Steffens, N. K., Haslam, S. A., Haslam, C., Jetten, J., & Dingle, G. A. (2016). Social Identity
26 Mapping: A procedure for visual representation and assessment of subjective multiple group

- 1 memberships. *British Journal of Social Psychology*, 55(4), 613–642.
 2 <https://doi.org/10.1111/bjso.12155>
- 3 DeMarco, T. C., & Newheiser, A.-K. (2019). When groups do not cure: Group esteem moderates the
 4 social cure effect. *European Journal of Social Psychology*, 49(7), 1421–1438.
 5 <https://doi.org/10.1002/ejsp.2594>
- 6 Dingle, G. A., Clift, S., Finn, S., Gilbert, R., Groarke, J. M., Irons, J. Y., Bartoli, A. J., Lamont, A.,
 7 Launay, J., Martin, E. S., Moss, H., Sanfilippo, K. R., Shipton, M., Stewart, L., Talbot, S., Tarrant,
 8 M., Tip, L., & Williams, E. J. (2019). An Agenda for Best Practice Research on Group Singing,
 9 Health, and Well-Being. *Music & Science*, 2, 2059204319861719.
 10 <https://doi.org/10.1177/2059204319861719>
- 11 Dolder, P. C., Schmid, Y., Müller, F., Borgwardt, S., & Liechti, M. E. (2016). LSD Acutely Impairs Fear
 12 Recognition and Enhances Emotional Empathy and Sociality. *Neuropsychopharmacology*, 41(11),
 13 Article 11. <https://doi.org/10.1038/npp.2016.82>
- 14 Eisner, B. (1997). Set, Setting, and Matrix. *Journal of Psychoactive Drugs*, 29(2), 213–216.
 15 <https://doi.org/10.1080/02791072.1997.10400190>
- 16 Fischer, F. M. (2015). *Therapy with substance: Psycholytic psychotherapy in the twenty first century*.
 17 Muswell Hill press.
- 18 Fong, P., Haslam, C., Cruwys, T., & Haslam, S. A. (2021). “There’s a Bit of a Ripple-effect”: A Social
 19 Identity Perspective on the Role of Third-Places and Aging in Place. *Environment and Behavior*,
 20 53(5), 540–568. <https://doi.org/10.1177/0013916520947109>
- 21 Forstmann, M., Yudkin, D. A., Prosser, A. M. B., Heller, S. M., & Crockett, M. J. (2020). Transformative
 22 experience and social connectedness mediate the mood-enhancing effects of psychedelic use in
 23 naturalistic settings. *Proceedings of the National Academy of Sciences*, 117(5), 2338–2346.
 24 <https://doi.org/10.1073/pnas.1918477117>

- 1 Fotiou, E. (2014). On the Uneasiness of Tourism. In B. C. Labate & C. Cavnar (Eds.), *Ayahuasca*
2 *Shamanism in the Amazon and Beyond* (pp. 159–181). Oxford University Press.
3 <https://doi.org/10.1093/acprof:oso/9780199341191.003.0008>
- 4 Galvão-Coelho, N. L., Marx, W., Gonzalez, M., Sinclair, J., de Manincor, M., Perkins, D., & Sarris, J.
5 (2021). Classic serotonergic psychedelics for mood and depressive symptoms: A meta-analysis of
6 mood disorder patients and healthy participants. *Psychopharmacology*, *238*(2), 341–354.
7 <https://doi.org/10.1007/s00213-020-05719-1>
- 8 Gardner, J., Carter, A., O'Brien, K., & Secar, K. (2019). Psychedelic-assisted therapies: The past, and the
9 need to move forward responsibly. *International Journal of Drug Policy*, *70*, 94–98.
10 <https://doi.org/10.1016/j.drugpo.2019.05.019>
- 11 Gasser, P. (2022). Psychedelic Group Therapy. In F. S. Barrett & K. H. Preller (Eds.), *Disruptive*
12 *Psychopharmacology* (pp. 23–34). Springer International Publishing.
13 https://doi.org/10.1007/7854_2021_268
- 14 Goldberg, S. B., Shechet, B., Nicholas, C. R., Ng, C. W., Deole, G., Chen, Z., & Raison, C. L. (2020).
15 Post-acute psychological effects of classical serotonergic psychedelics: A systematic review and
16 meta-analysis. *Psychological Medicine*, *50*(16), 2655–2666.
17 <https://doi.org/10.1017/S003329172000389X>
- 18 Hartley, C., Haslam, S. A., Coffee, P., & Rees, T. (2020). *Social Support* (pp. 245–264). SAGE
19 Publications. <http://dspace.stir.ac.uk/handle/1893/30404>
- 20 Hartman, S. (2023). *How Ayahuasca Can Be Used to Build Cohesion and Better the World*.
21 <https://reset.me/story/how-ayahuasca-can-be-used-to-build-cohesion-and-better-the-world/>
- 22 Hartogsohn, I. (2020). *American Trip: Set, Setting, and the Psychedelic Experience in the Twentieth*
23 *Century*. MIT Press.
- 24 Haslam, C., Cruwys, T., Chang, M. X.-L., Bentley, S. V., Haslam, S. A., Dingle, G. A., & Jetten, J.
25 (2019). GROUPS 4 HEALTH reduces loneliness and social anxiety in adults with psychological

- 1 distress: Findings from a randomized controlled trial. *Journal of Consulting and Clinical*
2 *Psychology*, 87, 787–801. <https://doi.org/10.1037/ccp0000427>
- 3 Haslam, C., Cruwys, T., Haslam, S. A., Dingle, G., & Chang, M. X.-L. (2016). GROUPS 4 HEALTH:
4 Evidence that a social-identity intervention that builds and strengthens social group membership
5 improves mental health. *Journal of Affective Disorders*, 194, 188–195.
- 6 Haslam, C., Haslam, S. A., Jetten, J., Cruwys, T., & Steffens, N. K. (2021). Life Change, Social Identity,
7 and Health. *Annual Review of Psychology*, 72, 635–661. [https://doi.org/10.1146/annurev-psych-](https://doi.org/10.1146/annurev-psych-060120-111721)
8 060120-111721
- 9 Haslam, C., Jetten, J., Cruwys, T., Dingle, G., & Haslam, S. A. (2018). *The New Psychology of Health:*
10 *Unlocking the Social Cure*. Routledge.
- 11 Haslam, S. A., Haslam, C., Cruwys, T., Jetten, J., Bentley, S. V., Fong, P., & Steffens, N. K. (2022).
12 Social identity makes group-based social connection possible: Implications for loneliness and mental
13 health. *Current Opinion in Psychology*, 43, 161–165. <https://doi.org/10.1016/j.copsy.2021.07.013>
- 14 Haslam, S. A., McMahon, C., Cruwys, T., Haslam, C., Jetten, J., & Steffens, N. K. (2018). Social cure,
15 what social cure? The propensity to underestimate the importance of social factors for health. *Social*
16 *Science & Medicine (1982)*, 198, 14–21. <https://doi.org/10.1016/j.socscimed.2017.12.020>
- 17 Haslam, S. A., Reicher, S. D., & Levine, M. (2012). When other people are heaven, when other people
18 are hell: How social identity determines the nature and impact of social support. In *The social cure:*
19 *Identity, health and well-being* (pp. 157–174). Psychology Press.
- 20 Haslam, S. A., Reicher, S. D., & Platow, M. J. (2020). *The new psychology of leadership: Identity,*
21 *influence and power* (2nd ed.). Routledge.
- 22 Holze, F., Avedisian, I., Varghese, N., Eckert, A., & Liechti, M. E. (2021). Role of the 5-HT_{2A} Receptor
23 in Acute Effects of LSD on Empathy and Circulating Oxytocin. *Frontiers in Pharmacology*, 12.
24 <https://www.frontiersin.org/articles/10.3389/fphar.2021.711255>

- 1 Jetten, J., Haslam, S. A., Cruwys, T., Greenaway, K. H., Haslam, C., & Steffens, N. K. (2017).
 2 Advancing the social identity approach to health and well-being: Progressing the social cure research
 3 agenda. *European Journal of Social Psychology*, *47*(7), 789–802. <https://doi.org/10.1002/ejsp.2333>
- 4 John, G. S. (2010). *The Local Scenes and Global Culture of Psytrance*. Routledge.
- 5 Kaelen, M., Giribaldi, B., Raine, J., Evans, L., Timmerman, C., Rodriguez, N., Roseman, L., Feilding, A.,
 6 Nutt, D., & Carhart-Harris, R. (2018). The hidden therapist: Evidence for a central role of music
 7 in psychedelic therapy. *Psychopharmacology*, *235*(2), 505–519. <https://doi.org/10.1007/s00213-017->
 8 4820-5
- 9 Kettner, H., Rosas, F. E., Timmermann, C., Kärtner, L., Carhart-Harris, R. L., & Roseman, L. (2021).
 10 Psychedelic Communitas: Intersubjective Experience During Psychedelic Group Sessions Predicts
 11 Enduring Changes in Psychological Wellbeing and Social Connectedness. *Frontiers in*
 12 *Pharmacology*, *12*. <https://www.frontiersin.org/articles/10.3389/fphar.2021.623985>
- 13 Khan, S. S., Hopkins, N., Reicher, S., Tewari, S., Srinivasan, N., & Stevenson, C. (2015). Shared identity
 14 predicts enhanced health at a mass gathering. *Group Processes & Intergroup Relations*, *18*(4), 504–
 15 522. <https://doi.org/10.1177/1368430214556703>
- 16 Knutson, A. L. (1960). Quiet and Vocal Groups. *Sociometry*, *23*(1), 36. <https://doi.org/10.2307/2786136>
- 17 Ko, K., Kopra, E. I., Cleare, A. J., & Rucker, J. J. (2023). Psychedelic therapy for depressive symptoms:
 18 A systematic review and meta-analysis. *Journal of Affective Disorders*, *322*, 194–204.
 19 <https://doi.org/10.1016/j.jad.2022.09.168>
- 20 Koudenburg, N., Postmes, T., Gordijn, E. H., & van Mourik Broekman, A. (2015). Uniform and
 21 complementary social interaction: Distinct pathways to solidarity. *PloS One*, *10*(6), e0129061.
- 22 Langdon, E. J. (2013). New Perspectives of Shamanism in Brazil. Shamanisms and Neo-Shamanisms as
 23 Dialogical Categories. *Civilisations*, *61–2*(1), 19–35. <https://doi.org/10.4000/civilisations.3227>
- 24 Launay, J., Tarr, B., & Dunbar, R. I. M. (2016). Synchrony as an Adaptive Mechanism for Large-Scale
 25 Human Social Bonding. *Ethology*, *122*(10), 779–789. <https://doi.org/10.1111/eth.12528>

- 1 Lee, G. C., Platow, M. J., Haslam, S. A., Reicher, S. D., Grace, D. M., & Cruwys, T. (2021). Facilitating
 2 goals, tasks, and bonds via identity leadership: Understanding the therapeutic working alliance as the
 3 outcome of social identity processes. *Group Dynamics: Theory, Research, and Practice*, 25(4), 271–
 4 287. <https://doi.org/10.1037/gdn0000170>
- 5 Leger, R. F., & Unterwald, E. M. (2022). Assessing the effects of methodological differences on
 6 outcomes in the use of psychedelics in the treatment of anxiety and depressive disorders: A
 7 systematic review and meta-analysis. *Journal of Psychopharmacology*, 36(1), 20–30.
 8 <https://doi.org/10.1177/02698811211044688>
- 9 Letcher, A. (2013). *Psychedelics, animism and spirituality*. Routledge Handbooks Online.
 10 <https://doi.org/10.4324/9781315728964.ch26>
- 11 Lewis, B. R., Garland, E. L., Byrne, K., Durns, T., Hendrick, J., Beck, A., & Thielking, P. (2023). HOPE:
 12 A Pilot Study of Psilocybin Enhanced Group Psychotherapy in Patients with Cancer. *Journal of Pain*
 13 *and Symptom Management*. <https://doi.org/10.1016/j.jpainsymman.2023.06.006>
- 14 Luoma, J. B., Chwyl, C., Bathje, G. J., Davis, A. K., & Lancelotta, R. (2020). A Meta-Analysis of
 15 Placebo-Controlled Trials of Psychedelic-Assisted Therapy. *Journal of Psychoactive Drugs*, 52(4),
 16 289–299. <https://doi.org/10.1080/02791072.2020.1769878>
- 17 Markopoulos, A., Inserra, A., De Gregorio, D., & Gobbi, G. (2022). Evaluating the Potential Use of
 18 Serotonergic Psychedelics in Autism Spectrum Disorder. *Frontiers in Pharmacology*, 12.
 19 <https://www.frontiersin.org/articles/10.3389/fphar.2021.749068>
- 20 Meuret, A. E., Chmielewski, M., Steele, A. M., Rosenfield, D., Petersen, S., Smits, J. A. J., Simon, N. M.,
 21 Otto, M. W., Marques, L., Pollack, M. H., & Hofmann, S. G. (2016). The desire to belong: Social
 22 identification as a predictor of treatment outcome in social anxiety disorder. *Behaviour Research and*
 23 *Therapy*, 81, 21–34. <https://doi.org/10.1016/j.brat.2016.03.008>
- 24 Muldoon, O. T., Haslam, S. A., Haslam, C., Cruwys, T., Kearns, M., & Jetten, J. (2019). The social
 25 psychology of responses to trauma: Social identity pathways associated with divergent traumatic

- 1 responses. *European Review of Social Psychology*, 30(1), 311–348.
2 <https://doi.org/10.1080/10463283.2020.1711628>
- 3 Murphy, R., Kettner, H., Zeifman, R., Giribaldi, B., Kartner, L., Martell, J., Read, T., Murphy-Beiner, A.,
4 Baker-Jones, M., Nutt, D., Erritzoe, D., Watts, R., & Carhart-Harris, R. (2022). Therapeutic Alliance
5 and Rapport Modulate Responses to Psilocybin Assisted Therapy for Depression. *Frontiers in*
6 *Pharmacology*, 12. <https://www.frontiersin.org/articles/10.3389/fphar.2021.788155>
- 7 Muthukumaraswamy, S., Forsyth, A., & Sumner, R. L. (2022). The challenges ahead for psychedelic
8 ‘medicine’. *Australian & New Zealand Journal of Psychiatry*, 56(11), 1378–1383.
9 <https://doi.org/10.1177/00048674221081763>
- 10 Nardou, R., Sawyer, E., Song, Y. J., Wilkinson, M., Padovan-Hernandez, Y., de Deus, J. L., Wright, N.,
11 Lama, C., Faltin, S., & Goff, L. A. (2023). Psychedelics reopen the social reward learning critical
12 period. *Nature*, 1–9.
- 13 Newson, M., Khurana, R., Cazorla, F., & van Mulukom, V. (2021). ‘I Get High With a Little Help From
14 My Friends’—How Raves Can Invoke Identity Fusion and Lasting Co-operation via Transformative
15 Experiences. *Frontiers in Psychology*, 12.
16 <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.719596>
- 17 Newson, M., Shiramizu, V., Buhrmester, M., Hattori, W. T., Jong, J., Yamamoto, E., & Whitehouse, H.
18 (2020). Devoted fans release more cortisol when watching live soccer matches. *Stress & Health*.
19 <https://doi.org/10.1002/smi.2924>
- 20 Nour, M. M., Evans, L., Nutt, D., & Carhart-Harris, R. L. (2016). Ego-Dissolution and Psychedelics:
21 Validation of the Ego-Dissolution Inventory (EDI). *Frontiers in Human Neuroscience*, 10.
22 <https://www.frontiersin.org/articles/10.3389/fnhum.2016.00269>
- 23 Oehen, P., & Gasser, P. (2022). Using a MDMA- and LSD-Group Therapy Model in Clinical Practice in
24 Switzerland and Highlighting the Treatment of Trauma-Related Disorders. *Frontiers in Psychiatry*,
25 13, 863552. <https://doi.org/10.3389/fpsyg.2022.863552>

- 1 Perry, G., Polito, V., & Thompson, W. F. (2021). Rhythmic Chanting and Mystical States across
 2 Traditions. *Brain Sciences*, *11*(1), Article 1. <https://doi.org/10.3390/brainsci11010101>
- 3 Pilecki, B., Luoma, J. B., Bathje, G. J., Rhea, J., & Narloch, V. F. (2021). Ethical and legal issues in
 4 psychedelic harm reduction and integration therapy. *Harm Reduction Journal*, *18*(1), 1–14.
- 5 Pixler, L. (2017). Psychedelic Movement: Healing Trauma through MDMA (3,4-
 6 Methylenedioxymethamphetamine)-Assisted Authentic Movement Psychotherapy. *Journal of*
 7 *Transpersonal Psychology*. [https://www.semanticscholar.org/paper/Psychedelic-Movement%3A-
 8 Healing-Trauma-through-MDMA-Pixler/01adfec4643dfcd50487188c44f67e7d61ffe4e](https://www.semanticscholar.org/paper/Psychedelic-Movement%3A-Healing-Trauma-through-MDMA-Pixler/01adfec4643dfcd50487188c44f67e7d61ffe4e)
- 9 Pollan, M. (2018). How to Change Your Mind: What the New Science of Psychedelics Teaches Us About
 10 Consciousness, Dying. *Addiction, Depression, and Transcendence*, 9–23.
- 11 Ponomarenko, P., Seragnoli, F., Calder, A., Oehen, P., & Hasler, G. (2023). Can psychedelics enhance
 12 group psychotherapy? A discussion on the therapeutic factors. *Journal of Psychopharmacology*,
 13 02698811231155117. <https://doi.org/10.1177/02698811231155117>
- 14 Pontual, A. A. de D., Tófoli, L. F., Corradi-Webster, C. M., van Oorsouw, K., Delgado, A. R. O., &
 15 Ramaekers, J. G. (2022). The influence of ceremonial settings on mystical and challenging
 16 experiences occasioned by ayahuasca: A survey among ritualistic and religious ayahuasca users.
 17 *Frontiers in Psychology*, *13*. <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.857372>
- 18 Praharsro, N. F., Tear, M. J., & Cruwys, T. (2017). Stressful life transitions and wellbeing: A comparison
 19 of the stress buffering hypothesis and the social identity model of identity change. *Psychiatry*
 20 *Research*, *247*, 265–275. <https://doi.org/10.1016/j.psychres.2016.11.039>
- 21 Preller, K. H., & Vollenweider, F. X. (2019). Modulation of Social Cognition via Hallucinogens and
 22 “Entactogens”. *Frontiers in Psychiatry*, *10*, 881. <https://doi.org/10.3389/fpsyg.2019.00881>
- 23 Rodríguez Arce, J. M., & Winkelman, M. J. (2021). Psychedelics, Sociality, and Human Evolution.
 24 *Frontiers in Psychology*, *12*, 729425. <https://doi.org/10.3389/fpsyg.2021.729425>

- 1 Romeo, B., Karila, L., Martelli, C., & Benyamina, A. (2020). Efficacy of psychedelic treatments on
 2 depressive symptoms: A meta-analysis. *Journal of Psychopharmacology (Oxford, England)*, *34*(10),
 3 1079–1085. <https://doi.org/10.1177/0269881120919957>
- 4 Roseman, L., Preller, K. H., Fotiou, E., & Winkelman, M. J. (2022). Psychedelic sociality:
 5 Pharmacological and extrapharmacological perspectives. *Frontiers in Pharmacology*, *13*, 979764.
 6 <https://doi.org/10.3389/fphar.2022.979764>
- 7 Rufi, S., Wlodarczyk, A., Páez, D., & Javaloy, F. (2016). Flow and Emotional Experience in Spirituality:
 8 Differences in Interactive and Coactive Collective Rituals. *Journal of Humanistic Psychology*, *56*(4),
 9 373–393. <https://doi.org/10.1177/0022167815571597>
- 10 Santos, C., Haslam, C., Bentley, S. V, Lam, B. C. P., & Steffens, N. K., Branscombe, N. R., Haslam, S.
 11 A., & Cruwys,. (2023). Groups 4 Retirement: A new intervention that supports well-being in the
 12 lead-up to retirement by targeting social identity management. *Journal of Occupational and*
 13 *Organizational Psychology*.
- 14 Schlag, A. K., Aday, J., Salam, I., Neill, J. C., & Nutt, D. J. (2022). Adverse effects of psychedelics:
 15 From anecdotes and misinformation to systematic science. *Journal of Psychopharmacology*, *36*(3),
 16 258–272. <https://doi.org/10.1177/02698811211069100>
- 17 Schury, V. A., Nater, U. M., & Häusser, J. A. (2020). The social curse: Evidence for a moderating effect
 18 of shared social identity on contagious stress reactions. *Psychoneuroendocrinology*, *122*, 104896.
 19 <https://doi.org/10.1016/j.psyneuen.2020.104896>
- 20 Scuro, J., & Rodd, R. (2015). Neo-shamanism. In *Encyclopedia of Latin American Religions* (pp. 1–6).
 21 Springer.
- 22 Smith, W. R., & Appelbaum, P. S. (2022). Novel ethical and policy issues in psychiatric uses of
 23 psychedelic substances. *Neuropharmacology*, *216*, 109165.
- 24 Steffens, N. K., LaRue, C. J., Haslam, C., Walter, Z. C., Cruwys, T., Munt, K. A., Haslam, S. A., Jetten,
 25 J., & Tarrant, M. (2021). Social identification-building interventions to improve health: A systematic

- 1 review and meta-analysis. *Health Psychology Review*, 15(1), 85–112.
2 <https://doi.org/10.1080/17437199.2019.1669481>
- 3 Stolaroff, M. (2004). *The Secret Chief Revealed: Conversations with Leo Zeff, pioneer in the*
4 *underground psychedelic therapy movement. Multidisciplinary Association for Psychedelic Studies*
5 *(MAPS), Sarasota, FL.*
- 6 Tarr, B., Launay, J., Cohen, E., & Dunbar, R. (2015). Synchrony and exertion during dance independently
7 raise pain threshold and encourage social bonding. *Biology Letters*, 11(10), 20150767.
- 8 Tarrant, M., Code, C., Carter, N., Carter, M., & Calitri, R. (2018). Development and progression of group
9 cohesiveness in a singing programme for people with post stroke aphasia: An evaluation study using
10 video analysis. *Aphasiology*, 32(sup1), 222–223. <https://doi.org/10.1080/02687038.2018.1487527>
- 11 Tarrant, M., Hagger, M., & Farrow, C. (2012). Promoting positive orientation towards health through
12 social identity. In J. Jetten, C. Haslam, & A. Haslam (Eds.), *The Social Cure*. Psychology Press.
- 13 Tarrant, M., Haslam, C., Carter, M., Calitri, R., & Haslam, S. A. (2020). Social identity interventions. In
14 Hagger, M. S., Cameron, L. D., Hamilton, K., Hankonen, N., & Lintunen, T., *Handbook of Behavior*
15 *Change* (pp. 649–660). Cambridge University Press.
- 16 Timmermann, C., Watts, R., & Dupuis, D. (2022). Towards psychedelic apprenticeship: Developing a
17 gentle touch for the mediation and validation of psychedelic-induced insights and revelations.
18 *Transcultural Psychiatry*, 59(5), 691–704. <https://doi.org/10.1177/13634615221082796>
- 19 Trope, A., Anderson, B. T., Hooker, A. R., Glick, G., Stauffer, C., & Woolley, J. D. (2019). Psychedelic-
20 Assisted Group Therapy: A Systematic Review. *Journal of Psychoactive Drugs*, 51(2), 174–188.
21 <https://doi.org/10.1080/02791072.2019.1593559>
- 22 Turner, H. T., John C. (2004). The Social Identity Theory of Intergroup Behavior. In *Political*
23 *Psychology*. Psychology Press.
- 24 Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the*
25 *social group: A self-categorization theory*. Basil Blackwell.

- 1 van Dick, R., Lemoine, J., Steffens, N. K., Akfirat, S. A., Alvarez, B., Avanzi, L., Dumont, K.,
 2 Epitropaki, O., Fransen, K., & Giessner, S. (2019). *Identity Going Global: A validation study across*
 3 *cultures*. European Association of Work and Organizational Psychology Congress (EAWOP), Date:
 4 2019/05/29-2019/06/01, Location: Turin, Italy.
- 5 Wallace, A. F. C. (1959). Cultural Determinants of Response to Hallucinatory Experience. *Archives of*
 6 *General Psychiatry, 1*(1), 58. <https://doi.org/10.1001/archpsyc.1959.03590010074009>
- 7 Watts, R., Kettner, H., Geerts, D., Gandy, S., Kartner, L., Mertens, L., Timmermann, C., Nour, M. M.,
 8 Kaelen, M., Nutt, D., Carhart-Harris, R., & Roseman, L. (2022). The Watts Connectedness Scale: A
 9 new scale for measuring a sense of connectedness to self, others, and world. *Psychopharmacology,*
 10 *239*(11), 3461–3483. <https://doi.org/10.1007/s00213-022-06187-5>
- 11 Williams, M. T., Reed, S., & George, J. (2020). Culture and psychedelic psychotherapy: Ethnic and racial
 12 themes from three Black women therapists. *Journal of Psychedelic Studies, 4*(3), 125–138.
 13 <https://doi.org/10.1556/2054.2020.00137>
- 14 Williams, R., Kemp, V., Haslam, S. A., Haslam, C., Bhui, K. S., & Maughan, D. (2019). *Social*
 15 *Scaffolding: Applying the Lessons of Contemporary Social Science to Health and Healthcare*.
 16 Cambridge University Press.
- 17 Wiltermuth, S. S., & Heath, C. (2009). Synchrony and cooperation. *Psychological Science, 20*(1), 1–5.
- 18 Winkelman, M. J. (2021). The Evolved Psychology of Psychedelic Set and Setting: Inferences Regarding
 19 the Roles of Shamanism and Entheogenic Ecopsychology. *Frontiers in Pharmacology, 12*.
 20 <https://www.frontiersin.org/articles/10.3389/fphar.2021.619890>
- 21 Zeifman, R. J., Yu, D., Singhal, N., Wang, G., Nayak, S. M., & Weissman, C. R. (2022). Decreases in
 22 Suicidality Following Psychedelic Therapy: A Meta-Analysis of Individual Patient Data Across
 23 Clinical Trials. *The Journal of Clinical Psychiatry, 83*(2), 39235.
 24 <https://doi.org/10.4088/JCP.21r14057>

1 Table 1. *The hierarchical structure of the self, based on self-categorization theory*

<i>Level of self-categorization</i>	<i>Content</i>	<i>Comparison category</i>	<i>Degree of inclusivity†</i>
personal	self as individual	ingroup members	1
social	self as (in)group member	outgroup members	2
human	self as human	animals	3
animal	self as animal	living things	4
organic	self as living	material things	5

2 *Note:* All levels of self-categorization other than the personal are a basis for a sense of social identity.

3 Comparison categories can be explicit or implicit.

4 † 1 = low, 5 = high

5