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Entheogens and spiritual seeking: The quest for self-transcendence, psychological well-being, and psychospiritual growth

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ABSTRACT

Background and aims: Although numerous cultures have used psychoactive substances for spiritual, or *entheogenic*, purposes, little is known about contemporary entheogenic spirituality, particularly outside of the few traditions that retain sacramental drug use practices. *Method:* To better conceptualize contemporary patterns of entheogenic drug use, an international, online study of entheogenic drug users was conducted ($n = 684$). Hierarchical regression analysis was used to explore entheogenic drug use in relation to measures of *spiritual seeking* (importance of spirituality in life, mediation practice, openness to experience), *self-transcendent experiences* (awe-proneness, mystical experiences), *psychological well-being* (psychological distress, subjective and eudaimonic well-being), and *psychospiritual development* (quiet ego, self-transcendence/wisdom, and spiritual development). ANOVA was used to compare entheogenic drug users with non-entheogenic drug users and non-drug users to assess differences across these psychospiritual variables. *Results:* Of the 12 drug categories assessed, the classic psychedelics were most commonly used as entheogens. Entheogenic classic psychedelic use was associated with all of the assessed psychospiritual variables; entheogenic classic psychedelic users showed higher levels of spiritual seeking, self-transcendence, psychological well-being, and psychospiritual development compared to non-entheogenic classic psychedelic users and non-users. *Conclusion:* Entheogenic spirituality may be conceptualized as a practice of spiritual seeking or implicit mysticism—the quest for self-transcendence and personal growth.

KEYWORDS

entheogens, awe, self-transcendence, psychedelics, wisdom

An *entheogen* is any psychoactive substance used to evoke an altered state of consciousness interpreted as having religious or spiritual significance (Hoffman, 2015). Although many substances are used for religious/spiritual purposes, the *classic psychedelics*—such as psilocybin, mescaline, dimethyltryptamine, and LSD—are often used as entheogens given their capacity to evoke self-transcendent states of consciousness (Ferrara, 2021; Móró & Noreika, 2011). Entheogens have had widespread influence on the origins of religion across cultures, including various Indigenous traditions, Judaism, Christianity, Islam, Buddhism, and Hinduism (Hoffman, 2015; Hood, Hill, & Spilka, 2009; Nemu, 2019).

Despite their ubiquity of use, Western society has long suppressed entheogens (Rätsch, 2005). While the mid-20th century saw a brief revival of entheogenic spirituality, the association between drug use and the counterculture movement of the 1960s eventually provoked a backlash leading to their criminalization (Blainey, 2015). Strict prohibition has constrained the study of most entheogenic substances, making it difficult to establish a clear understanding of their properties, risks, and benefits (Hood et al., 2009). Although there is growing research on Indigenous entheogenic practices, it cannot be assumed that these findings apply to entheogen use outside these traditions (Johnstad, 2018). Accordingly, entheogen use is now being approached as a modern spiritual endeavor in need of greater study (Blainey, 2015).

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CONCEPTUALIZING ENTHEOGENIC DRUG USE

Based on preliminary research, several characteristics of entheogenic drug use can be tentatively inferred. Although non-medically sanctioned drug use is often considered inherently abusive (St. Arnaud, 2023), entheogenic drug use is dissimilar from recreational and addictive drug use (Orsolini, Papanti, Francesconi, & Schifano, 2015). Entheogens are not used to avoid or constrict from life, but to—at times painfully—expand one’s perspectives and promote psychological healing and spiritual growth (Friedman, 2006; Johnstad, 2018). As such, neither addiction nor “partying” can explain spiritual drug use (Móro, Simon, Bárd, & Rác, 2011). Entheogenic practice tends to involve well-planned and infrequent drug use sessions, in controlled settings either alone or with a few trusted companions. Moreover, considerable time is spent reflecting upon and integrating these drug experiences into everyday life (Johnstad, 2015, 2018). As such, entheogens are used as tools for introspection, personal growth, and auto-psychotherapy (Móro et al., 2011; Orsolini et al., 2015). When motivated by such intentions, entheogens may reveal access to hidden aspects of the mind, facilitate encounters with emotionally difficult feelings or past experiences, and provide novel perspectives on self, others, and the world (Johnstad, 2018; Peill et al., 2022; Prepeliczay, 2002).

Entheogenic drug use as spiritual seeking

Entheogen use is typically part of a broader spiritual quest for personal growth (Johnstad, 2018). Accordingly, entheogenic drug use corresponds with *spiritual seeking*, which involves the pursuit of self-realization (Hood et al., 2009). Spiritual seekers create their own beliefs by incorporating ideas from various religious and philosophical traditions, engage in spiritual practices (e.g., meditation), place emphasis on the importance of spirituality in life, are highly open to experience, and espouse a *spiritual but not religious* orientation (Wink, Ciciolla, Dillon, & Tracy, 2007; Wink & Dillon, 2003). Entheogenic users similarly emphasize spirituality in their lives without adopting any particularly religious ideology, engage in meditation and other practices, and contend that entheogenic drug experiences leave them feeling more open to aesthetics, their deeper or higher self, others, and the world (Johnstad, 2018; Stasko, Rao, & Pillely, 2012).

Entheogen-assisted self-transcendent experiences

Psychoactive substances can induce non-ordinary states of consciousness involving profound changes in subjective experience (Tart, 2000). When such states are evoked with spiritual or religious intentions, the resulting experiences may be interpreted as deeply meaningful and existentially profound (Móro et al., 2011). These so-called *self-transcendent* states—including awe and mystical experiences—involve a sense of ego-dissolution and feelings of unity (Yaden, Haidt, Hood, Vago, & Newberg, 2017). Awe

involves alterations in one’s sense of time, space, and self, including ego diminishment and feelings of connection with something vast (Monroy & Keltner, 2022). Mystical experiences similarly involve a sense of transcending time and space, feelings of oneness, a sense of divinity or sacredness, paradoxicality, and ineffability (Hood et al., 2009). Contemporary research has shown that psychedelics can evoke such self-transcendent states under experimental (MacLean, Johnson, & Griffiths, 2011) and naturalistic conditions (Lerner & Lyvers, 2006).

Entheogens and psychological well-being

Entheogen users attribute improvements to their psychological well-being on account of their drug-facilitated experiences—reduced psychological distress and enhanced self-acceptance, interpersonal relationships, and ability to cope with life (Johnstad, 2015, 2018; Prepeliczay, 2002). Psychedelic-facilitated self-insights have been shown to enhance psychological flexibility and promote mental health (Peill et al., 2022). Hendricks (2018) argues that psychedelic-induced awe may be responsible for psychedelics’ acute and enduring beneficial effects through *shrinking the ego*, while Kałużna, Schlosser, Craste, Stroud, and Cooke (2022) argue that psychedelic experiences involving mystical feelings of connectedness or oneness are particularly salubrious. It has been suggested that awe related processes—including diminished self-focus, increased prosociality and social integration, and a sense of meaning—may mediate the well-established relationship between religion/spirituality and psychological well-being (Monroy & Keltner, 2022). Moreover, enhanced psychological flexibility may mediate the beneficial effect of psychedelic-induced self-transcendent experiences on reductions in psychopathology (Davis, Barrett, & Griffiths, 2020).

Entheogens and psychospiritual development

Entheogen-induced self-transcendent states are believed to have held a function in rituals related to psychospiritual development (Ferrara, 2021; Hoffman, 2015)—the process of transcending, or *quieting*, the ego and growth toward *wisdom* (Levenson, Jennings, Aldwin, & Shiraiishi, 2005; Maslow, 1971; Wayment, Bauer, & Sylaska, 2015). Research with contemporary entheogen users similarly suggests that entheogen-induced experiences may function as periodic reflection points on the path of long-term growth (Johnstad, 2018). Studies indicate that entheogen use is associated with indicators of psychospiritual development, including self-transcendence (Bouso et al., 2015), presence in the here-and-now (Johnstad, 2015, 2018), feelings of connectedness with nature and a transpersonal meta-perspective (Stasko et al., 2012), as well as psychospiritual changes congruent with Maslow’s description of self-transcendence (Orsolini et al., 2015). These characteristics are related to *xenosophia*—the development of spiritual maturity and wisdom through encounters with the unknown, alien, or strange (Streib, Hood, & Klein, 2016; Streib, Hood, & Klein, 2010). Spiritually developed individuals are not bound to ideology nor



fundamentalist, but humble, open, and tolerant of diverse beliefs (Klein, Silver, Streib, Hood, & Coleman, 2016).

PURPOSE

Complementing the limited number of preliminary studies of entheogenic spirituality, the primary purpose of the present study was to examine entheogenic spirituality utilizing a large sample size and quantitative methods. The first aim was to explore patterns and intentions of entheogenic drug use. The second aim was to explore entheogenic drug use in relation to measures of spiritual seeking, self-transcendence, psychological well-being, and psychospiritual development. The final aim was to compare entheogenic drug users with both non-entheogenic drug users and non-drug users to assess differences in spiritual seeking, self-transcendence, psychological well-being, and psychospiritual development across these groups.

METHOD

Participants and procedures

An international sample of participants were recruited through online communities of drug users (e.g., Multidisciplinary Association for Psychedelic Studies, The Psychedelic Society, Erowid, Bluelight) as well as religion and spirituality forums (e.g., Reddit, Facebook). The survey was administered using REDCap, an online survey tool compliant with American and Canadian privacy laws. No incentives were offered to participants. In total, 1,216 individuals consented to and began the survey. Individuals who did not finish the survey had their data removed. In total, 684 participants finished the survey and were included in the analyses. Data from participants who finished the survey but missed a few items were analyzed to determine if the data were missing at random. As Little's test was not statistically significant, it was determined that the missing data were missing completely at random (MCAR). Given that less than 0.5% of data were missing, expectation maximization was used for imputation (Gold & Bentler, 2000) as maximum-likelihood strategies have shown superiority to deletion, nonstochastic, and stochastic regression imputation methods (Schlomer, Bauman, & Card, 2010). The Research Ethics Board at the University of Alberta approved this study.

Measures

Demographics. The online survey included demographic questions assessing age, gender, education, location, self-identified ethnicity, financial stability, religious affiliation, and religious/spiritual orientation. Religious affiliation assessed self-identified religion: *Christian, Muslim, Jewish, Buddhist, Hindu, Other, or no religious affiliation*. Religious/spiritual orientation was assessed with one item: *religious*

and spiritual, religious but not spiritual, spiritual but not religious, or neither religious nor spiritual.

Drug use patterns. Twelve drug categories were adapted from the World Health Organization's *Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST, Version 3.1)* measure of problematic drug use (WHO, 2022). Participants were asked to rate how often their use of each of 12 drug categories (alcohol, tobacco, cannabis, MDMA, amphetamines, cocaine, opiates, classic psychedelics, inhalants, sedatives/hypnotics, dissociatives, atypical psychedelics) is motivated by entheogenic intentions using a five-point scale (1 = *Never/almost never*, 2 = *Some of the time*, 3 = *Half of the time*, 4 = *Most of the time*, 5 = *Always/almost always*).

For each drug category, participants were also asked about life-time use on an eight-point scale (*Never to More than 100 times*), frequency of use on an eight-point scale (*I no longer use this drug to Once or more per day*), average dose size on a five-point scale (*Very small to Very large*), and social/group use on a five-point scale (*Always/almost always alone to Always/almost always in a group*).

The six-item *ASSIST Problematic Drug Abuse Scale* was used to measure the degree to which participants experience problems stemming from their drug use for each drug category (WHO, 2022). An example item is, "During the past three months, how often have you failed to do what was normally expected of you because of your use of [drug]?" Responses were given on a five-point scale (*Never to Daily*). Internal consistency was $\alpha = 0.54$.

A three-item *Drug-use Reflection/Integration Scale* was developed for this study to measure the degree to which participants reflect on and integrate their drug use experiences into daily life. The three items: 1) "Overall, I try to reflect on my drug experiences", 2) "Overall, I try to integrate new perspectives gained through my drug experiences into my day-to-day life", and 3) "Overall, I try to learn from my drug experiences". Each item was responded to on a five-point scale (*Never/almost never to Always/almost always*). Internal consistency was $\alpha = 0.88$.

Drug use motivations/intentions. Based on a review of the literature on drug use motivations/intentions for use (e.g., Hallock, Dean, Knecht, Spencer, & Taverna, 2013; Móró et al., 2011), 11 purposes for drug use were assessed using a five-point scale (*Never/almost never to Always/almost always*): boredom, socializing, sensation, mind-expansion, creativity, to fit in, experimentation, to relieve negative affect, introspection/personal growth, relaxation, to party.

Spiritual seeking. A single item was used to assess spirituality, "Spirituality is important in my life", using a seven-point scale from *Strongly disagree* to *Strongly agree*. Although brief, this index predicts spirituality-related constructs in a way that is equivalent to multi-item measures of spirituality (Van Cappellen, Saroglou, Iweins, Piovesana, & Fredrickson, 2013).

A single item was used to assess meditation practice, "How often do you engage in a formal meditation practice?", using a five-point scale ranging from *Never* to *Daily*.



The 10-item *Openness to Experience Subscale* of the *Big Five Inventory-44* was used to assess trait openness (John & Srivastava, 1999). Items begin with the stem “I see myself as someone who...” An example is “likes to reflect, play with ideas”. Responses were made on a seven-point scale from *Strongly disagree* to *Strongly agree*. Internal consistency was $\alpha = 0.78$.

Self-transcendent experiences. The six-item *Awe Subscale* of the *Dispositional Positive Emotion Scale* was used to assess the degree to which participants experience feelings of awe in their daily lives (Shiota, Keltner, & John, 2006). Responses were made on a seven-point scale from *Strongly disagree* to *Strongly agree*. An example item is “I feel wonder every day”. Internal consistency was $\alpha = 0.80$.

The 12-item *Mysticism Scale – Short Form* was used to assess whether participants have had mystical experiences (Anthony, Hermans, & Sterkens, 2010). Each item is rated on a five-point scale (*Definitely not* to *Definitely yes*). An example item is “I have had an experience which I knew to be sacred”. Internal consistency was $\alpha = 0.90$.

Psychological well-being. The six-item *K-6* is a widely used scale screening for transdiagnostic psychological distress (Kessler et al., 2002). Participants are asked to rate how often they experienced psychological distress symptoms over the past month. One item asks “In the past month, how often have you felt so depressed that nothing could cheer you up?” Responses are provided on a five-point scale (*None of the time* to *All of the time*). Internal consistency was $\alpha = 0.88$.

The five-item *Satisfaction with Life Scale* is a popular measure of subjective well-being (Diener, Emmons, Larsen, & Griffin, 1985). Respondents are asked to indicate the extent of their agreement with each item using a seven-point scale (*Strongly disagree* to *Strongly agree*). An example item reads “In most ways my life is close to my ideal.” Internal consistency was $\alpha = 0.90$.

The 18-item *Scales of Psychological Well-Being* was used to measure eudaimonic well-being (Ryff & Keyes, 1995). Each item is rated on a seven-point scale (*Strongly disagree* to *Strongly agree*). An example item reads “In many ways, I feel disappointed about my achievements in life”. Internal consistency was $\alpha = 0.87$.

Psychospiritual development. The 14-item *Quiet Ego Scale* is a measure of psychological development (Wayment et al., 2015). Items are rated on a seven-point scale (*Strongly disagree* to *Strongly agree*). For example, “I have the sense I have developed a lot as a person over time”. Internal consistency was $\alpha = 0.81$.

The 24-item *Adult Self-Transcendence Inventory* was used as a measure of wisdom (Koller, Levenson, & Gluck, 2017; Levenson et al., 2005). Items are rated on a seven-point scale (*Strongly disagree* to *Strongly agree*). An example item reads “I feel that my individual life is a part of a greater whole”. Internal consistency was $\alpha = 0.89$.

The five-item *Xenosophia Subscale* of the *Religious Schema Scale* was used as a measure of spiritual development

(Streib et al., 2010). Each item is rated using a seven-point scale (*Strongly disagree* to *Strongly agree*). An example item is “The truth I see in other worldviews leads me to reexamine my current views.” Internal consistency was $\alpha = 0.64$.

Data analysis

Statistical analyses were conducted using SPSS 27. Median frequency of entheogenic drug use was calculated for the 12 drug categories to assess each drug’s relative rate of use for entheogenic purposes. As the classic psychedelics were most frequently used with entheogenic intentions, further analyses focused on *entheogenic classic psychedelic use*. Correlation and chi-square analyses were used to compare the relationship between entheogenic classic psychedelic use and demographics, psychedelic drug use parameters, motivations/intentions for using psychedelics, spiritual seeking, self-transcendent experiences, psychological well-being, and psychospiritual development.

Hierarchical regression analyses were used to predict entheogenic classic psychedelic use from 1) psychedelic drug use parameters, 2) motivations/intentions for using psychedelics, 3) spiritual seeking, 4) self-transcendent experience, 5) psychological well-being, and 6) psychospiritual development. For each of the six regressions, model fit statistics were reported. Unstandardized coefficients, standardized coefficients, and bivariate correlations were reported for all predictor variables in each of the full models.

Step 1 of each of the six regressions included demographics (age, gender, education, and financial stability) to adjust for these variables. Step 2 in the first of six regressions added drug use parameters (life-time psychedelic use, frequency of psychedelic use, social/group use, average psychedelic dose size, drug use reflection/integration, and psychedelic abuse). Step 2 in the second of six regressions added motivations/intentions for using psychedelics (boredom, socializing, sensation, mind-expansion, creativity, to fit in, experimentation, to relieve negative affect, introspection/personal growth, relaxation, and to party). Step 2 in the third of six regressions added the spiritual seeking variables (importance of spirituality in life, meditation practice, and openness to experience). Step 2 in the fourth of six regressions added the self-transcendent experience variables (awe-proneness and mystical experiences). Step 2 in the fifth of six regressions added the psychological well-being variables (psychological distress, subjective well-being, and eudaimonic well-being). Step 2 in the sixth of six regressions added the psychospiritual development variables (quiet ego, self-transcendence/wisdom, and spiritual development/xenosophia).

Analyses of Variance (ANOVAs) were used to compare four groups of participants across the spiritual seeking, self-transcendent experiences, psychological well-being, and psychospiritual development variables. These four groups were: *non-psychedelic users* ($n = 173$, individuals who have never used psychedelics); *non-entheogenic psychedelic users* ($n = 113$, individuals whose psychedelic use is never or almost never motivated by entheogenic intentions);



occasional entheogenic psychedelic users ($n = 138$, individuals whose psychedelic use is motivated by entheogenic intentions some of the time to half of the time); and *dedicated entheogenic psychedelic users* ($n = 260$, individuals whose psychedelic use is motivated by entheogenic intentions most of the time to always or almost always). Given unbalanced groups and unequal variances, Welch's adjusted F statistic was used for omnibus tests, and the Games-Howell correction was used for post-hoc comparisons (Moder, 2010).

Effect sizes were used to assess practical significance. Cohen (1988) and Field (2013) provide tentative guidelines for considering the magnitude of an effect. For Cramér's V , <0.2 , $0.2-0.6$, and >0.6 denote small, medium, and large effects. For Pearson's r and standardized regression coefficients β , 0.1 , 0.3 and 0.5 denote small, medium, and large effects. For the coefficient of determination R^2 , 0.02 , 0.13 , and 0.26 represent small, medium, and large effects; for omega-squared ω^2 , 0.01 , 0.06 , 0.14 denote small, medium, and large effects.

RESULTS

Demographics

The median age of the sample was 25–34 years, with 38.2% of participants identifying as female, 57.3% as male, and 3.7% as Other. The majority (77.5%) of participants were located in North America, self-identified as White (82.7%), and had at least some college education (81%). In total, 58.8% of the sample identified as “spiritual but not religious,” 28.5% as “neither spiritual nor religious,” 11.8% as “equally religious and spiritual,” and 0.9% as “religious but not spiritual.” In total, 67.4% reported No Religion, 14.2% Christian, 10% Other, and 4.8% Buddhist.

Entheogenic drug use

All 12 drug types were used with entheogenic intentions by at least some participants. For 10 of the 12 substances, median entheogenic use was 1 (*Never or almost never*). For the atypical psychedelics, median entheogenic use was 2 (*Some of the time*), while for the classic psychedelics, median entheogenic use was 4 (*Most of the time*).

Entheogenic classic psychedelic drug use

Of those who reported using classic psychedelics ($n = 511$), 113 reported that their psychedelic use was *never or almost never* motivated by entheogenic intentions, 72 reported that their psychedelic use was motivated by entheogenic intentions *some of the time*, 66 reported that their psychedelic use was motivated by entheogenic intentions *half of the time*, 107 reported that their psychedelic use was motivated by entheogenic intentions *most of the time*, and 153 reported that their psychedelic use was *always or almost always* motivated by entheogenic intentions.

Entheogenic classic psychedelic use showed a small correlation with education, $r(502) = 0.09$, $p < 0.041$, but was not significantly related to age, $r(508) = 0.08$, $p = 0.073$, financial stability, $r(509) = 0.09$, $p = 0.054$, or gender, $\chi^2(8) = 14.08$, $p < 0.08$. Entheogenic classic psychedelic use showed a small association with religious affiliation, $\chi^2(24) = 41.01$, $p < 0.017$, $V = 0.14$, and a moderate association with religious/spiritual orientation, $\chi^2(12) = 92.40$, $p < 0.001$, $V = 0.24$. Those who *always or almost always* approached their classic psychedelic use with entheogenic intentions had a greater likelihood of identifying as “Buddhist” and “spiritual but not religious, and a lower likelihood of identifying with “no religion” and “neither religious nor spiritual.”

Entheogenic classic psychedelic drug use parameters

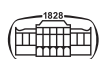
For those whose use of classic psychedelics was *always or almost always* motivated by entheogenic intentions, median life-time psychedelic use was *10–19 times*, median frequency of psychedelic use was *3–4 times per year*, median dose size was *moderate*, median social/group use was *half the time alone/half the time in a group*, and median drug-use reflection/integration was *always/almost always*. The median problematic psychedelic abuse score was 4; the ASSIST measure suggests brief clinical intervention for those with scores above 3 (WHO, 2022).

Step 1 of the regression model included demographics; Step 2 added the psychedelic drug use parameters and was statistically significant, $F(11, 492) = 13.108$, $p < 0.001$, $R^2 = 0.227$, denoting a medium/large effect. The change from Step 1 to Step 2, $\Delta F(6, 492) = 20.924$, $p < .001$, $\Delta R^2 = 0.197$ was also significant. Statistically significant predictors in Step 2 included age ($\beta = 0.12$, $p = 0.008$), Other gender ($\beta = -0.09$, $p = 0.022$), dose size ($\beta = 0.18$, $p < 0.001$), and drug use reflection/integration ($\beta = 0.29$, $p < 0.001$). Drug-use reflection/integration and dose size represent medium and small/medium effects, whereas age and gender denote small effects. See Table 1.

Table 1. Associations between entheogenic psychedelic use and drug use parameters

	B	SE	β	r
Intercept	-0.27	0.44	–	–
Age	0.15	0.06	0.12**	0.08*
Female	-0.11	0.14	-0.03	-0.03
Other	-0.84	0.37	-0.09*	-0.11**
Education	0.05	0.04	0.05	0.09*
Financial Stability	0.04	0.07	0.03	0.08*
Life-Time Psychedelic Use	0.01	0.04	0.01	0.20***
Frequency of Psychedelic Use	0.10	0.06	0.09	0.25***
Psychedelic Use in a Group	-0.09	0.05	-0.08	-0.16***
Psychedelic Dose Size	0.28	0.07	0.18***	0.30***
Drug-Use Integration	0.16	0.02	0.29***	0.36***
Problematic Psychedelic Abuse	0.01	0.02	0.02	0.15***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.



Entheogenic classic psychedelic drug use motivations/intentions

Step 1 of the regression included demographics; Step 2 added the psychedelic drug use motivations/intentions and was statistically significant, $F(16, 487) = 13.266, p < 0.001, R^2 = 0.304$, denoting a large effect. The change from Step 1 to Step 2, $\Delta F(11, 487) = 17.433, p < .001, \Delta R^2 = 0.274$ was also significant. Statistically significant predictors in Step 2 included: age ($\beta = 0.13, p = 0.003$), creativity ($\beta = 0.09, p = 0.045$), introspection/personal growth ($\beta = 0.35, p < 0.001$), relaxation ($\beta = 0.10, p = 0.032$), and to party ($\beta = -0.10, p = 0.048$). Introspection/personal growth represents a medium effect, whereas age, creativity, relaxation, and to party denote small effects. See Table 2.

Entheogenic classic psychedelic drug use and spiritual seeking

Step 1 of the regression included demographics; Step 2 added the spiritual seeking variables and was statistically significant, $F(8, 495) = 27.525, p < 0.001, R^2 = 0.308$, denoting a large effect. The change from Step 1 to Step 2, $\Delta F(3, 495) = 66.41, p < .001, \Delta R^2 = 0.279$, was also significant. Statistically significant predictors in Step 2 included female gender ($\beta = -0.08, p = 0.045$), Other gender ($\beta = -0.09, p = 0.013$), importance of spirituality in life ($\beta = 0.46, p < 0.001$), and meditation practice ($\beta = 0.16, p < 0.001$). Importance of spirituality in life denotes a large effect, whereas meditation, age, female, and Other gender reflect small effects. See Table 3.

Entheogenic classic psychedelic use and self-transcendent experiences

Step 1 of the regression model included demographics; Step 2 added the self-transcendent experience variables and was

Table 2. Associations between entheogenic psychedelic use and drug use intentions

	B	SE	β	r
Intercept	0.23	0.41	—	—
Age	0.16	0.05	0.13**	0.08*
Female	-0.15	0.13	-0.05	-0.03
Other	-0.61	0.35	-0.07	-0.11**
Education	0.01	0.04	0.01	0.09*
Financial Stability	0.07	0.06	0.04	0.08*
Boredom	-0.11	0.08	-0.06	-0.09
Socializing	0.09	0.07	0.06	0.02
Sensation	-0.01	0.05	-0.01	0.08
Mind-Expansion	0.17	0.10	0.11	0.42***
Creativity	0.08	0.04	0.09*	0.25***
To Fit In	-0.11	0.08	-0.06	-0.14***
Experimentation	-0.05	0.04	-0.05	0.03
To Relieve Negative Affect	-0.05	0.06	-0.04	0.04
Personal Growth	0.45	0.08	0.35***	0.49***
Relaxation	0.13	0.06	0.10*	0.12**
To Party	-0.13	0.07	-0.10*	-0.18***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3. Associations between entheogenic psychedelic use and spiritual seeking

	B	SE	β	r
Intercept	1.11	0.48	—	—
Age	0.02	0.05	0.02	0.08*
Female	-0.26	0.13	-0.08*	-0.03
Other	-0.86	0.34	-0.09*	-0.11**
Education	0.01	0.04	0.01	0.09*
Financial Stability	0.02	0.06	0.01	0.08*
Spirituality Importance	0.34	0.03	0.46***	0.52***
Meditation Frequency	0.17	0.05	0.16***	0.35***
Openness to Experience	-0.001	0.01	-0.01	0.13**

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

statistically significant, $F(7,496) = 16.98, p < 0.001, R^2 = 0.193$, denoting a medium effect. The change from Step 1 to Step 2, $\Delta F(2,496) = 50.427, p < .001, \Delta R^2 = 0.164$. Statistically significant predictors included female gender ($\beta = -0.08, p = 0.05$), Other gender ($\beta = -0.11, p = 0.014$), awe-proneness ($\beta = 0.14, p = 0.002$), and mystical experiences ($\beta = 0.33, p < 0.001$). Mystical experiences denote a medium effect, whereas awe-proneness, female gender, and Other gender denote small effects. See Table 4.

Entheogenic classic psychedelic use and psychological well-being

Step 1 of the regression included demographics; Step 2 added the psychological well-being variables and was statistically significant, $F(8,495) = 4.17, p < 0.001, R^2 = 0.063$, denoting a small effect. The change from Step 1 to Step 2, $\Delta F(3,495) = 5.95, p < 0.001, \Delta R^2 = 0.034$, was also significant. Other gender was the only statistically significant predictor ($\beta = -0.10, p = 0.026$), which denotes a small effect. See Table 5.

Entheogenic classic psychedelic use and psychospiritual development

Step 1 of the regression included demographics; Step 2 added the psychospiritual development variables and was statistically significant, $F(8,495) = 14.19, p < 0.001, R^2 = 0.187$, denoting a medium effect. The change from Step 1 to

Table 4. Associations between entheogenic psychedelic use and self-transcendent experiences

	B	SE	β	r
Intercept	-1.36	0.47	—	—
Age	0.05	0.06	0.04	0.08*
Female	-0.27	0.14	-0.08*	-0.03
Other	-1.01	0.37	-0.11**	-0.11**
Education	0.05	0.04	0.05	0.09*
Financial Stability	0.02	0.07	0.01	0.08*
Awe-Proneness	0.04	0.01	0.14**	0.29***
Mystical Experiences	0.06	0.01	0.33***	0.39***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.



Table 5. Associations between entheogenic psychedelic use and psychological well-being

	B	SE	β	r
Intercept	1.59	0.77	–	–
Age	0.09	0.06	0.08	0.08*
Female	–0.25	0.15	–0.08	–0.03
Other	–0.89	0.40	–0.10*	–0.11**
Education	0.03	0.05	0.03	0.09*
Financial Stability	–0.04	0.08	–0.03	0.08*
Psychological Distress	0.00	0.02	0.00	–0.17***
Subjective Well-Being	0.02	0.01	0.09	0.19***
Eudaimonic Well-Being	0.01	0.01	0.13	0.20***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Step 2, $\Delta F(3,495) = 31.92, p < .001, \Delta R^2 = 0.157$, was also significant. Female gender ($\beta = -0.09, p = 0.042$), Other gender ($\beta = -0.09, p = 0.027$), self-transcendence/wisdom ($\beta = 0.24, p < 0.001$), and spiritual development/xenosophia ($\beta = 0.19, p < 0.001$), were statistically significant predictors of entheogenic classic psychedelic use. Self-transcendence/wisdom and spiritual development represent small/medium effects, whereas female gender and Other gender denote small effects. See Table 6.

Entheogenic classic psychedelic use group comparisons on psychospiritual variables

Statistically significant group differences were found for all spiritual seeking, self-transcendent experience, psychological well-being, and psychospiritual development variables across the four comparison groups (Table 7). Post-hoc comparisons revealed that the *dedicated entheogenic psychedelic users* had the highest levels of spiritual seeking, self-transcendent experiences, psychological well-being, and psychospiritual development. This pattern was followed by the *occasional entheogenic psychedelic users*, *non-entheogenic psychedelic users*, and *non-psychedelic users*, respectively. Mean group differences for mystical experiences and importance of spirituality in life denote very large effects, while mean group differences for self-transcendence/wisdom

Table 6. Associations between entheogenic psychedelic use and psychospiritual growth

	B	SE	β	r
Intercept	–1.77	0.54	–	–
Age	0.08	0.06	0.07	0.08*
Female	–0.28	0.14	–0.09*	–0.03
Other	–0.82	0.37	–0.09*	–0.11**
Education	0.02	0.05	0.02	0.09*
Financial Stability	–0.00	0.07	–0.00	0.08*
Quiet Ego	0.01	0.01	0.06	0.29***
Wisdom/Self-transcendence	0.02	0.00	0.24***	0.37***
Spiritual Development	0.06	0.01	0.19***	0.31***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

and meditation denote large effects. Quiet ego, spiritual development, and awe-proneness group differences denote medium effects.

DISCUSSION

Although various psychoactive substances were used with spiritual intentions, the classic psychedelics were most commonly used as entheogens. For individuals whose psychedelic use was *always or almost always* motivated by entheogenic intentions, use of these substances tended to be modest and infrequent. On average, these participants reported using psychedelics 10–19 times total, with roughly 3–4 uses *per year*, in group or solitary contexts, using moderate to large doses, and always reflecting upon and integrating their drug experiences into daily life. However, the median score on the ASSIST scale of psychedelic abuse suggests that for some individuals, their entheogenic psychedelic use may negatively impact psychosocial functioning. The small, predictive association between age and entheogenic use intentions suggests that as psychedelic users increase in age, their motivation for using psychedelics may become more spiritually oriented. The finding that those who identify as female or Other gender may be less likely than those who identify as men to use entheogens needs further investigation as the effects were small, though consistent with previous research (Johnstad, 2015; Orsolini et al., 2015).

Entheogenic classic psychedelic use was correlated with life-time psychedelic use, frequency of psychedelic use, psychedelic dose size, drug-use reflection/integration, and problematic psychedelic abuse, and *negatively* correlated with the use of psychedelics in a group setting. However, only drug-use reflection/integration and dose size, along with age and other gender, predicted entheogenic psychedelic use in the regression model. Of the psychedelic drug-use parameters, drug-use reflection/integration was the most meaningful predictor of entheogenic use. Entheogenic classic psychedelic use was also correlated with mind-expansion, creativity, introspection/personal growth, and relaxation psychedelic use intentions, and negatively correlated with partying and fitting in with a group use motivations. However, only introspection/personal growth, creativity, relaxation, and partying use intentions, as well as age, predicted entheogenic psychedelic use. Introspection/personal growth was the most meaningful psychedelic use intention associated with entheogenically motivated use.

In terms of spiritual seeking, entheogenic psychedelic use showed a moderate association with a “spiritual but not religious” orientation, and a small association with a Buddhist religious affiliation. Moreover, 73% of entheogen users identified with “Other” or “no religion.” Entheogenic psychedelic use was correlated with importance of spirituality in life, meditation frequency, and openness to experience, although only importance of spirituality in life and meditation predicted entheogenic use in the regression model. Importance of spirituality in life was the most meaningful spiritual seeking variable to predict entheogenic

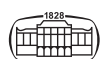


Table 7. Comparisons of entheogenic psychedelic drug users and non-psychedelic users

	Non-Psychedelic Users		Never/Almost Never Entheogenic Use		Some of the Time/Half the Time Entheogenic Use		Mostly/Always, Almost Always Entheogenic Use		F	ω^2
	M	SD	M	SD	M	SD	M	SD		
	<i>Spiritual Seeking</i>									
Spirituality Importance	3.65 ^a	2.28	3.04 ^a	2.04	4.39 ^b	1.88	5.59 ^c	1.53	74.06 ^{***}	0.243
Meditation Frequency	2.08 ^a	1.28	2.13 ^a	1.21	2.70 ^b	1.34	3.30 ^c	1.39	37.30 ^{***}	0.137
Openness to Experience	50.85 ^a	8.56	53.85 ^b	8.29	55.34 ^{bc}	7.50	56.16 ^c	6.63	16.56 ^{***}	0.064
<i>Self-Transcendent Experiences</i>										
Awe-Proneness	28.68 ^a	7.68	29.14 ^a	6.97	32.79 ^b	5.81	34.10 ^b	5.18	31.12 ^{***}	0.117
Mystical Experiences	40.38 ^a	11.85	45.70 ^b	9.98	51.64 ^c	7.38	54.14 ^d	6.48	77.18 ^{***}	0.250
<i>Psychological Well-Being</i>										
Psychological Distress	16.14 ^a	5.93	15.83 ^a	5.27	14.07 ^b	4.77	13.46 ^b	4.93	11.02 ^{***}	0.042
Subjective Well-Being	18.72 ^a	8.39	18.11 ^a	7.97	21.17 ^b	7.91	22.05 ^b	7.85	9.63 ^{***}	0.036
Eudaimonic Well-Being	82.61 ^a	17.95	84.58 ^a	14.23	91.25 ^b	15.71	92.72 ^b	14.92	17.20 ^{***}	0.066
<i>Psychospiritual Growth</i>										
Quiet Ego	67.42 ^a	11.65	68.91 ^a	11.20	74.41 ^b	9.05	76.47 ^b	9.47	30.75 ^{***}	0.115
Wisdom/Self-Transcendence	112.44 ^a	21.66	115.57 ^a	20.09	123.78 ^b	17.37	132.04 ^c	16.95	42.33 ^{***}	0.153
Spiritual Development	23.89 ^a	5.64	23.89 ^a	5.21	26.01 ^b	4.37	27.45 ^c	4.57	22.80 ^{***}	0.087

Note: *** $p < 0.001$. Superscripts represent post-hoc mean comparisons with the Games-Howell correction. Means in the same row with different superscripts differ from each other with statistical significance at the 0.05 level.

psychedelic use. With regard to the self-transcendent experience variables, entheogenic classic psychedelic use was correlated with, and predicted by, awe-proneness and mystical experiences, consistent with previous literature (Hendricks, 2018; Johnstad, 2018; Lerner & Lyvers, 2006). However, mystical experiences were the most meaningful predictor of entheogenic psychedelic use.

Although entheogenic classic psychedelic use was negatively correlated with psychological distress and positively correlated with subjective and eudaimonic well-being, none of these variables predicted entheogenic psychedelic use in the regression model. This finding is in partial agreement with Johnstad (2018) though will require further exploration. Finally, entheogenic psychedelic use was correlated with all indices of psychospiritual development, but only self-transcendence/wisdom and spiritual development predicted entheogenic psychedelic use in the regression. Of these psychospiritual variables, self-transcendence/wisdom was the most meaningful predictor of entheogenic classic psychedelic use.

When taken together, these findings are generally congruent with previous research and help to provide a general outline of entheogenic spirituality (e.g., Bouso et al., 2015; Ferrara, 2021; Johnstad, 2015, 2018, 2020; Móró & Noreika, 2011; Prepeliczay, 2002). Entheogenic spirituality tends to involve the infrequent use of classic psychedelic substances, with moderate to large doses, and the deliberate reflection upon, and integration of, drug experiences into everyday life. Entheogenic drug use is not an experimental or recreational endeavor but motivated primarily by the desire for personal growth. In such a way, entheogenic drug use is a form of spiritual seeking, which involves the pursuit of direct, spiritual experiences and self-realization. Indeed, entheogenically motivated psychedelic use is associated with

greater reports of mystical experiences and heightened levels of self-transcendent wisdom. However, although entheogenic spirituality is distinct from problematic drug abuse, some individuals may experience strong desires for the spiritual experiences that psychedelics can evoke, which may lead to psychosocial disruptions.

Group comparisons further support the regression analyses and previous research, revealing that both dedicated and occasional entheogenic psychedelic users demonstrate higher levels of spiritual seeking, self-transcendent experiences, psychological well-being, and psychospiritual development when compared to those whose use of psychedelics is not motivated by entheogenic intentions and those who do not use psychedelic drugs. In particular, mystical experiences and importance of spirituality in life showed the largest meaningful differences between groups, followed by self-transcendence/wisdom, meditation frequency, quiet ego, spiritual development, and awe-proneness.

Moreover, individuals who use psychedelics with non-entheogenic intentions differed from individuals who do not use psychedelics drugs only on trait openness and mystical experiences, which is consistent with previous research (Erritzoe et al., 2019; Lerner & Lyvers, 2006). The finding that the non-entheogenic psychedelic users did not have higher levels of the other psychological and spiritual variables compared to those who do not use psychedelics is congruent with Smith (1964), “drugs appear to induce religious experiences; it is less evident that they can produce religious lives” (p. 529). Thus, while psychedelics may evoke powerful changes in consciousness, and may promote greater openness to experience, without a clear growth or spiritually oriented motivation for use, such changes *in and of themselves* are unlikely to foster psychological or spiritual



development (see also Haijen et al., 2018). It is not enough to simply take psychedelic drugs to incur benefits from use. The positive effects that may derive from taking psychedelics are *fundamentally* reliant on context—the set and setting of the user (Carhart-Harris et al., 2018).

Limitations

Since a representative sample was not used, the results of this study cannot be assumed to be representative of the broader population of contemporary entheogenic drug users. Given the overarching demographic uniformity of the sample, caution must be taken with respect to generalizing these findings to all psychedelic users. Future research should aim to recruit from under-represented communities and ethnicities (see Williams & Labate, 2020). Given the self-report and self-selected nature of this sample, positivity or social-desirability bias may influence these findings. In addition, given that a digital (e.g., online) survey was used for this study, potential threats to data integrity (e.g., botting) may also impact these findings. As this study used a cross-sectional design, causation cannot be drawn. Given the exploratory nature of this research, future studies should use experimental and longitudinal designs to assess causality and changes over time. Future cross-sectional designs should utilize representative samples, though this is particularly challenging when studying illicit substance use (Barratt, Ferris, & Lenton, 2015).

Conclusion

Based on the findings of the present study in conjunction with previous research, contemporary entheogenic drug use may be conceptualized as spiritual seeking or *implicit mysticism* (Streib et al., 2016; Wink & Dillon, 2003). Hood et al. (2009) note that spiritual seeking involves a quest for spiritual experiences and self-realization, while Atchley (1997) similarly contends that mysticism involves the pursuit of self-transcendence and psychospiritual development. Growing research—both historic and contemporary—suggests that entheogenic classic psychedelic use may indeed aid these very purposes (Ferrara, 2021; Johnstad, 2018). Although currently an illicit and culturally unacceptable practice, entheogenic spirituality may thus advance salubrious and even prosocial aims (e.g., xenosophia is negatively associated with religious fundamentalism and right-wing authoritarianism; Streib et al., 2010). Given these positive implications, researchers, clergy, and policy makers should consider how to regulate and reincorporate entheogen spirituality into contemporary society.

Data availability and replication statement: Interested parties should contact the lead author if they would like access to the dataset used to produce the findings reported in this article.

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