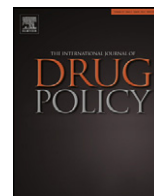




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### Editorial

## Statement on ayahuasca

Sixty years ago, the esteemed academic journal *Science* published a “Statement on Peyote” (La Barre, McAllester, Slotkin, Stewart, & Tax, 1951), in which a handful of leading researchers, dismayed by the misinformed and demonising drug politics of the time, defended the right of the Native American Church to consume a psychedelic plant in its religious rites. Today, we feel similarly compelled to speak out on behalf of an analogous, non-indigenous religious tradition—the Brazilian ayahuasca religions, including the Santo Daime, the União do Vegetal, and other related groups (Dawson, 2007; Labate & MacRae, 2010). We have studied various ritual uses of ayahuasca, participated in ceremonies and consumed the sacramental brew.

As the Brazilian ayahuasca religions have spread from South America to North America, Europe and Asia over the past few decades, their members have suffered arrests, criminal prosecution, and stigmatization as “drug users.” Currently, Santo Daime members in the UK, Ireland, Spain, and Portugal are facing criminal charges, and the protection of religious freedom for Santo Daime members in Canada remains tentative and unresolved (Tupper, 2011). Meanwhile, in the US, Oregon-based Santo Daime members are in negotiations with the Department of Justice (Church v. Holder, 2012), and in a highly politicized case, the União do Vegetal was recently denied a permit for building a temple in New Mexico (Haywood, 2011). We contend that such barriers to the freedom of religious practice are both legally and ethically untenable; moreover, as with oppression of the Native American Church (Calabrese, 2004; Halpern, Sherwood, Hudson, Yurgelun-Todd, & Pope, 2005), intolerance of the Brazilian ayahuasca religions is not based on rational risk/benefit evaluations of consequences, either for individual practitioners or for public safety. Instead, persecution of the Brazilian ayahuasca religions has been mostly based on misinformed prejudice against the use of psychedelic substances in what are reasonably safe and socially controlled ritual contexts, and which constitute authentic cultural traditions and expressions that must be respected as such. Here we discuss the scientific evidence available on these practices, and we argue that the data justify modelling future regulation of these religions on Brazil’s largely self-enforced policies, which treat ayahuasca more like a religious sacrament than a controlled psychotropic substance (Labate & Feeney, 2011). Such policies have proven successful in Brazil over the past several decades and they have allowed the Brazilian ayahuasca religions to develop the intriguing social, health and research implications that they present us with today.

Ayahuasca is a psychedelic decoction made from plants native to the Amazon Basin—most often *Banisteriopsis caapi* and

*Psychotria viridis*—and which contains harmala alkaloids and N,N-dimethyltryptamine (DMT), the latter being a controlled substance scheduled under the 1971 Convention on Psychotropic Substances (UN, 1971). Substantial English-language academic literature on ayahuasca, especially on its uses in the Brazilian ayahuasca religions, has only been available for the last two decades (Labate, Rose, & Santos, 2009). The belief systems of the different religions bring together Christian, Spiritist, African and Indigenous traditions with influences from contemporary urban spiritualities. There is no standard ritual performed by all the Brazilian ayahuasca religions, but there are some commonalities across the groups: rituals are usually held every 2 weeks and often commence in the evening; church members wear clothing reflective of the historical and cultural contexts in which the different groups were founded; after initial prayers are said, the religious leaders give each congregant a small glass of ayahuasca in a ritualized manner that evokes the distribution of wine in other Christian settings; finally, the rituals are designed to slightly outlast the psychoactive effects of the ayahuasca (about 4 h). These effects can include the sensation of an intimate proximity to God or other spiritual beings; a general intensification of emotions, particularly those of a positive valence (e.g., tranquillity and reverence); a tendency toward introspection; sensations of enhanced lucidity and comprehension; and sensations of enhanced perceptual acuity accompanied by an increased vividness of closed-eye visualizations. Somatic effects can include sensations of bodily heaviness or lightness, nausea, vomiting, and diarrhoea (it is important to note that, for the practitioners of these religions, vomiting is associated with bodily and spiritual cleansing).

Over the decades, the Brazilian ayahuasca religions have developed their rituals and theological teachings to incorporate the strong psychological effects of ayahuasca within systems of belief and practice that are immensely rich with spiritual meaning for worshipers, and significantly distinct from the problematic uses of drugs like alcohol, tobacco, and the opiates (i.e., use associated with dependence, debilitating illness or social harms). Unfortunately, however, recent media depictions of these Brazilian religions have sensationalized ayahuasca, mistakenly portrayed it as a dangerous street drug, and even erroneously confused it with pure DMT and compared its harms to those of methamphetamine (Rommelman & Mesh, 2011; The Sun, 2010; UK Border Agency, 2010). Contrary to these descriptions of ayahuasca and its effects, the few biomedical studies of the physical and mental health of members of the Brazilian ayahuasca religions have shown no harm from consuming the brew in these contexts. Findings from case-control and cross-sectional studies of long-term members include the following: ayahuasca’s acute physiological

and subjective effects are relatively benign, and adults with over a decade's worth of regular ayahuasca use in the União do Vegetal retain normal neurocognitive functioning (Callaway et al., 1999; Grob et al., 1996); there is a relative absence of psychopathology in adult members of the Santo Daime (Halpern, Sherwood, Passie, Blackwell, & Ruttenber, 2008); adolescents who have consumed ayahuasca in the União do Vegetal at least monthly for 2 years show normal psychiatric and neuropsychological profiles, an absence of excessive drug use, and normal development of moral decision-making (da Silveira et al., 2005; Dobkin de Rios et al., 2005; Doering-Silveira, Grob, et al., 2005; Doering-Silveira, Lopez, et al., 2005); and no signs of deleterious medical and social consequences were found in long-term Santo Daime and Barquinha members (Fábregas et al., 2010). Moreover, a prospective study of new ayahuasca users showed improvements in measures of mental health and physical pain 6 months after beginning to attend Santo Daime and União do Vegetal ceremonies, respectively (Barbosa, Cazorla, Giglio, & Strassman, 2009). These data are corroborated and contextualized by a plethora of ethnographic studies that attest to the healthy and functional nature of these communities, which have now regularly consumed ayahuasca for several generations (Brissac, 2010; MacRae, 1992; Mercante, 2010).

Toxicology studies in animals have found that the chemical constituents of ayahuasca could be harmful, but at dosages and patterns of ingestion of questionable relevance to those seen in the Brazilian ayahuasca religions (Pires, Oliveira, & Yonamine, 2010). Meanwhile, lyophilized ayahuasca has been shown to be safe to administer to humans in laboratory settings (Riba et al., 2001), as has pure DMT (Strassman, 1996); and the acute effects of lyophilized ayahuasca on human immune function appear to be equivocal (Santos et al., 2011). Ayahuasca has been used experimentally to induce a model psychosis in humans (Pinto, 2010), although it is unlikely that ayahuasca and other psychedelics can cause psychotic illness *sui generis*; rather, it is suggested that they may occasionally precipitate psychotic episodes in persons with a predisposition to such states (Jones, 2009; Strassman, 1984). This hypothesis is supported by preliminary data (collected and analyzed by physicians who are themselves members of the União do Vegetal) that suggest that the incidence of psychosis among União do Vegetal members compares to that of the Brazilian population in general (Assis & Tófoli, 2011). No deaths have been confirmed to be directly attributable to ayahuasca use (Gable, 2007).

Aside from indicating a general lack of harm from the religious use of ayahuasca, biomedical and ethnographic studies have also generated preliminary evidence in support of the therapeutic potentials of ayahuasca or its constituents for alleviating substance dependence (Grob et al., 1996; Labate, Santos, Anderson, Mercante, & Barbosa, 2010) and mood and anxiety disorders (Fortunato et al., 2010; Santos, Landeira-Fernandez, Strassman, Motta, & Cruz, 2007). The study of ayahuasca could thus contribute to advances in ethnopharmacology and the cognitive sciences (Shanon, 2002), yet such studies are severely compromised when these traditions face the threat of legal sanction. And for those readers who doubt that contemporary ethnopharmacological drug research conducted with a religious group that uses psychedelic plants could come to fruition and produce an officially accepted medical therapy, they only need look to the fact that the US federal government, through the Indian Health Service, recognizes the administration of Native American Church peyote ceremonies as an effective and reimbursable treatment for substance dependence (Calabrese, 2004).

The Native American Church was roughly 80 years old when La Barre et al. published their "Statement on Peyote," denouncing a prejudiced and misleading political campaign to outlaw this minority religious tradition. With the legal protection granted to it, not only for medical but also for cultural and historical reasons, the

Native American Church has evolved over the decades into a stable, multigenerational religious tradition practiced throughout North America and which provides its members deeply meaningful and beneficial spiritual experiences through the ritualized consumption of a powerful psychedelic plant (Stewart, 1987).

Today the form of ritual ayahuasca use that has come to be known as the Brazilian ayahuasca religions is also about 80 years old. In Brazil, the ayahuasca religions have been largely self-regulated as a result of federal government investigations, beginning in the 1980s, which have repeatedly found these religions to be beneficial contributors to the communities in which they are established (Labate & Feeney, 2011; National Council for Drug Policy, 2010). In Brazil, these religions are not merely permitted to practice, but increasingly they are being recognized as cultural heritage, as in the 2006 declaration of certain buildings of the Centro de Iluminação Cristã Luz Universal (the oldest Brazilian ayahuasca religion) as part of the "historical patrimony" of Brazil's Acre state. Similarly, in 2008, the traditional knowledge and use of ayahuasca by native Amazonian communities were deemed part of Peruvian national heritage (Labate & Goldstein, 2009). The Brazilian ayahuasca religions currently practice their faiths with varying degrees of government permission or tolerance in Canada, the Netherlands, Spain, and several other countries around the world (Labate & Jungaberle, 2011), not to mention the United States where the União do Vegetal won their case before the US Supreme Court in 2006 and the Santo Daime won their district court case in Oregon in 2009; both churches were subsequently issued federal licences to import and to consume ayahuasca in their rituals (Labate, 2012). This expansion has been aided by the fact that the UN International Narcotics Control Board considers ayahuasca not to be controlled under either the 1971 or the 1988 UN Conventions on psychotropic substances (Tupper & Labate, in press; UNINCB, 2011).

In light of these facts—that ritualized psychedelic plant use has expanded out of the Amazon in recent decades; that the available data consistently suggest that these practices are reasonably safe; and that, nevertheless, considerations of medical and public safety must be balanced with socio-historical and human rights considerations, such as the universal right to freedom of religion—we urge regulatory authorities in the countries where the Brazilian ayahuasca religions are currently arriving to demonstrate tolerance and grant these groups the necessary degree of legal freedom and respectful engagement for them to continue evolving into safe and responsible contributors to today's multicultural and globalizing society.

## References

- Assis, F. A. S., & Tófoli, L. F. (2011). An epidemiological surveillance system by the UDV: Mental health recommendations concerning the religious use of Hoasca. In B. C. Labate, & H. Jungaberle (Eds.), *The internationalization of ayahuasca* (pp. 185–199). Zurich: Lit Verlag.
- Barbosa, P. C. R., Cazorla, I. M., Giglio, J. S., & Strassman, R. (2009). A six-month prospective evaluation of personality traits, psychiatric symptoms and quality of life in ayahuasca-naïve subjects. *Journal of Psychoactive Drugs*, 41(3), 205–212.
- Brissac, S. (2010). In the light of Hoasca: An approach to the religious experience of participants of the União do Vegetal. In B. C. Labate, & E. MacRae (Eds.), *Ayahuasca, ritual and religion in Brazil* (pp. 135–160). London: Equinox.
- Calabrese, J. D. (2004). The Supreme Court versus peyote: Consciousness, cultural psychiatry and the dilemma of contemporary subcultures. *Anthropology of Consciousness*, 12(September/December), 4–19.
- Callaway, J. C., McKenna, D. J., Grob, C. S., Brito, G. S., Raymon, L. P., Poland, R. E., et al. (1999). Pharmacokinetics of Hoasca alkaloids in healthy humans. *Journal of Ethnopharmacology*, 65(3), 243–256.
- Church of the Holy Light of the Queen v. Holder, No. 1:08-cv-03095-PA [D. Or., January 6, 2012] Retrieved from: <http://www.bialabate.net/wp-content/uploads/2009/04/Santo-Daime-Oregon-Panner-New-Order-Jan-6-121.pdf>
- da Silveira, D. X., Grob, C. S., Dobkin de Rios, M., Doering-Silveira, E., Alonso, L. K., Tacla, C., et al. (2005). Ayahuasca in adolescence: A preliminary psychiatric assessment. *Journal of Psychoactive Drugs*, 37(2), 129.

- Dawson, A. (2007). *New era – New religions: Religious transformation in contemporary Brazil*. Ashgate: Aldershot.
- Dobkin de Rios, M., Grob, C. S., Lopez, E., da Silveira, D. X., Alonso, L. K., & Doering-Silveira, E. (2005). Ayahuasca in adolescence: Qualitative results. *Journal of psychoactive drugs*, 37(2), 135–139.
- Doering-Silveira, E., Grob, C. S., Dobkin de Rios, M., Lopez, E., Alonso, L. K., Tacla, C., et al. (2005). Report on psychoactive drug use among adolescents using ayahuasca within a religious context. *Journal of Psychoactive Drugs*, 37(2), 141–144.
- Doering-Silveira, E., Lopez, E., Grob, C. S., Dobkin de Rios, M., Alonso, L. K., Tacla, C., et al. (2005). Ayahuasca in adolescence: A neuropsychological assessment. *Journal of Psychoactive Drugs*, 37(2), 123–128.
- Fábregas, J. M., González, D., Fondevila, S., Cutchet, M., Fernández, X., Barbosa, P. C. R., et al. (2010). Assessment of addiction severity among ritual users of ayahuasca. *Drug and Alcohol Dependence*, 111(3), 257–261.
- Fortunato, J. J., Réus, G. Z., Kirsch, T. R., Stringari, R. B., Fries, G. R., Kapczinski, F., et al. (2010). Chronic administration of harmine elicits antidepressant-like effects and increases BDNF levels in rat hippocampus. *Journal of Neural Transmission*, 117, 1–7.
- Gable, R. S. (2007). Risk assessment of ritual use of oral dimethyltryptamine (DMT) and harmful alkaloids. *Addiction*, 102(1), 24–34.
- Grob, C. S., McKenna, D. J., Callaway, J. C., Brito, G. S., Neves, E. S., Oberlaender, G., et al. (1996). Human psychopharmacology of Hoasca: A plant hallucinogen used in ritual context in Brazil. *The Journal of Nervous and Mental Disease*, 184(2), 86–94.
- Halpern, J. H., Sherwood, A. R., Hudson, J. I., Yurgelun-Todd, D., & Pope, H. G., Jr. (2005). Psychological and cognitive effects of long-term peyote use among Native Americans. *Biological Psychiatry*, 58, 624–631.
- Halpern, J. H., Sherwood, A. R., Passie, T., Blackwell, K. C., & Ruttenber, A. J. (2008). Evidence of health and safety in American members of a religion who use a hallucinogenic sacrament. *Medical Science Monitor*, 14(8), SR15–SR22.
- Haywood, P. (2011). County rejects temple for UDV. *The New Mexican*. Retrieved from: <http://www.santafenewmexican.com/Local%20News/arroyo-hondo-County-rejects-UDV-s-project>
- Jones, R. T. (2009). Hallucinogen-related disorders. In B. J. Sadock, V. A. Sadock, & P. Ruiz (Eds.), *Kaplan and Sadock's comprehensive textbook of psychiatry* (9th ed., pp. 1331–1340). Philadelphia: Lippincott Williams and Wilkins.
- La Barre, W., McAllester, D. P., Slotkin, J. S., Stewart, O. C., & Tax, S. (1951). Statement on peyote. *Science*, 114(2970), 582–583.
- Labate, B. C. (2012). Paradoxes of ayahuasca expansion: The UDV-DEA agreement and the limits of freedom of religion. *Drugs: Education, Prevention and Policy*, 19(1), 19–26.
- Labate, B. C., & Feeney, K. (2011). Ayahuasca and the process of regulation in Brazil and internationally: Implications and challenges. *International Journal of Drug Policy*. Available online.
- Labate, B. C., & Goldstein, I. (2009). Ayahuasca – From dangerous drug to national heritage: An interview with Antonio A. Arantes. *International Journal Transpersonal Studies*, 28, 53–64.
- Labate, B. C., & Jungaberle, H. (Eds.). (2011). *The internationalization of ayahuasca*. Zurich: Lit Verlag.
- Labate, B. C., & MacRae, E. (Eds.). (2010). *Ayahuasca, ritual and religion in Brazil*. London: Equinox.
- Labate, B. C., Rose, I. S., & Santos, R. G. (2009). *Ayahuasca religions: A comprehensive bibliography and critical essays*. Santa Cruz, CA: Multidisciplinary Association for Psychedelic Studies.
- Labate, B. C., Santos, R. G., Anderson, B., Mercante, M., & Barbosa, P. C. R. (2010). The treatment and handling of substance dependence with ayahuasca: Reflections on current and future research. In B. C. Labate, & E. MacRae (Eds.), *Ayahuasca, ritual and religion in Brazil* (pp. 205–227). London: Equinox.
- MacRae, E. (1992). *Guided by the moon – Shamanism and the ritual use of ayahuasca in the Santo Daime religion in Brazil*. Núcleo de Estudos Interdisciplinares sobre Psicoativos. Retrieved from: [http://www.neip.info/downloads/edward/t\\_edw2.pdf](http://www.neip.info/downloads/edward/t_edw2.pdf)
- Mercante, M. (2010). *Images of healing: Spontaneous mental imagery and healing process of the Barquinha, a Brazilian ayahuasca religious system*. Saarbrücken: Lambert Academic Publishing.
- National Council for Drug Policy. (2010). Resolution No. 1–25 January 2010. Diário Oficial da União. Retrieved from: <http://www.bialabate.net/wp-content/uploads///Resolution.1.CONAD.25.Jan.2010.pdf>
- Pinto, J. P. (2010). *Estudo sobre alterações neurofuncionais após ingestão de ayahuasca* (Mestrado em Saúde Mental). Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto. Retrieved from: <http://www.neip.info/html/objects/.downloadblob.php?cod.blob=1003>
- Pires, A. P., Oliveira, C. D., & Yonamine, M. (2010). Ayahuasca: Uma revisão dos aspectos farmacológicos e toxicológicos. *Revista de Ciências Farmacêuticas Básica e Aplicada*, 31(1), 15–23.
- Riba, J., Rodríguez-Fornells, A., Urbano, G., Morte, A., Antonijoan, R., Montero, M., et al. (2001). Subjective effects and tolerability of the South American psychoactive beverage Ayahuasca in healthy volunteers. *Psychopharmacology*, 154(1), 85–95.
- Rommelman, N., & Mesh, A. (2011). Children of a higher God. *WWeek*. Retrieved from: <http://www.wweek.com/portland/article-17017-children.of.a.higher.god.html>
- Santos, R. G., Landeira-Fernandez, J., Strassman, R. J., Motta, V., & Cruz, A. P. M. (2007). Effects of ayahuasca on psychometric measures of anxiety, panic-like and hopelessness in Santo Daime members. *Journal of Ethnopharmacology*, 112(3), 507–513.
- Santos, R. G., Valle, M., Bouso, J. C., Nomdedéu, J. F., Rodríguez-Espinosa, J., McIlheny, E. H., et al. (2011). Autonomic, neuroendocrine, and immunological effects of ayahuasca: A comparative study with D-amphetamine. *Journal of Clinical Psychopharmacology*, 31(6), 717–726.
- Shanon, B. (2002). *The antipodes of the mind: Charting the phenomenology of the ayahuasca experience*. New York: Oxford University Press.
- Stewart, O. C. (1987). *Peyote religion: A history*. Norman, OK: University of Oklahoma Press.
- Strassman, R. (1984). Adverse reactions to psychedelic drugs: A review of the literature. *The Journal of Nervous and Mental Disease*, 127(10), 577–595.
- Strassman, R. J. (1996). Human psychopharmacology of N,N-dimethyltryptamine. *Behavioural Brain Research*, 73(1–2), 121–124.
- The Sun. (2010). *Mind-busting jungle drug hits UK*. TheSun.co.uk.
- Tupper, K. W. (2011). *Ayahuasca, entheogenic education and public policy* (Doctoral dissertation). University of British Columbia.
- Tupper, K. W., & Labate, B. C. Plants, psychoactive substances and the INCB: The control of nature and the nature of control. *International Journal of Human Rights and Drug Policy*, in press.
- UK Border Agency. (2010). *UK Border Agency seizes hallucinogenic drug sent in post*. Retrieved from: <http://www.ukba.homeoffice.gov.uk/sitecontent/newsarticles/2010/oct/22-ukba-seizes-drugs-via-post>
- United Nations. (1971). *Convention on psychotropic substances*. United Nations. Retrieved from: <http://www.incb.org/pdf/e/conv/convention.1971.en.pdf>
- United Nations International Narcotics Control Board. (2011). Report of the International Narcotics Control Board for 2010. UN Publication sales No. E.11.XI.1. Retrieved from: [http://www.incb.org/pdf/annual-report/2010/en/AR\\_2010\\_English.pdf](http://www.incb.org/pdf/annual-report/2010/en/AR_2010_English.pdf)

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