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Psychedelic Nation? (De)Provincializing the Psychedelic Renaissance from Brazil

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Abstract

Research into the therapeutic potential of psychedelic substances has garnered spectacular international attention. Most of this focuses on research in the Global North. In this article, we examine Brazil's scientific contribution to the psychedelic renaissance. Brazilian psychedelic science thrives thanks to a strong pharmaceutical innovation system and the legal status of ayahuasca, which has allowed it to develop a distinctive, globally relevant research paradigm. Unlike in many countries, this research program is mostly publicly funded through universities, showcasing Latin America's ability to produce competitive science despite oftentimes severe financial limitations. In part shaped by traditions of *saúde coletiva*, social medicine, psychiatric reform, and harm reduction activism, Brazilian psychedelic science has historically maintained close ties to local communities of knowledge, particularly the ayahuasca churches, some of which have partnered with clinical research laboratories. Drawing on ethnographic research with actors of the Brazilian psychedelic research community we argue

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that provincializing the psychedelic renaissance means challenging the patent-driven, neoliberal mindset that makes the idea of a shared, publicly funded psychedelic research commons seem impossible. We show that this ideal has nevertheless been quietly put into practice in places like Brazil, at least as long as its universities received adequate public funding.

Keywords

ayahuasca, Brazil, church-lab relations, global south, *saúde coletiva*, innovation

Introduction

Global interest in psychedelics has soared over the last decade as hyperbolic promises of alleviating mental health suffering through these cure-alls have been featured in mainstream media, from Time magazine to Netflix, the topic of myriad editorials in neuroscience, psychiatry and public health journals (Anderson, Danforth, and Grob 2020; Carhart-Harris and Goodwin 2017; Nutt and Carhart-Harris 2021). Many academic articles on the topic include graphs of article publication counts concerning psychedelics, by year, revealing a steep increase around 2010 (Petranker, Anderson, and Farb 2020). In 2024 it is estimated there are nearly 30 Phase 2 psychedelic trials in progress and three Phase 3 trials: Lykos Therapeutics (formerly MAPS Public Benefit Corporation) MDMA for PTSD, Compass Pathways psilocybin for treatment-resistant depression and Awakn Ketamine for alcohol use disorder.¹ In 2015, *Nature* announced the preliminary success of a Brazilian clinical trial of ayahuasca for depression: “A psychedelic drink used for centuries in healing ceremonies is now attracting the attention of biomedical scientists as a possible treatment for depression” (Frood 2015). The Brain Institute of Natal, Brazil went on to conduct the first ever double-blind randomized controlled trial of ayahuasca, which showed promise for addressing treatment-resistant depression, placing Brazil on the map of the global psychedelic renaissance (Palhano-Fontes et al. 2019).

What characterizes the psychedelic renaissance is an increasingly biomedicalized approach to psychedelic compounds as therapeutic solutions, principally in the field of mental health. Biomedically, psychedelics have been defined as “powerful psychoactive substances that alter perception and mood, and affect numerous cognitive processes” (Nichols 2016). This classification includes LSD, mescaline, DMT (found in ayahuasca),

and psilocybin known as “classic” psychedelics. The “renaissance” in psychedelic science (i.e., biomedical research into the pharmacological, neurochemical, immunomodulatory, anti-inflammatory, neurocognitive, or clinical—to name but some—efficacies of this class of compounds) is demarcated from earlier work in the 1950s–1970s. What sets them apart is their adherence to the gold standard of evidence-making in clinical research, otherwise known as the double-blind randomized controlled clinical trial (Dumit and Sanabria 2022; Oram 2018). It is accompanied by a careful rebranding of psychedelics from party drugs to pharmaceutical panacea, conducted through social media campaigns aiming at destigmatizing psychedelics and building broad public acceptance for their therapeutic use.

In this article, we draw attention to the way this movement is presented as “global” inasmuch as scientific journals such as *Nature*, *JAMA (The Journal of the American Medical Association)*, the *Lancet*, the *Guardian*, Netflix, the *New York Times* or Instagram, Twitter and Facebook come to stand in for “the global.” We draw on theoretical interventions around the question of “provincializing” hegemonic world regions (such as Western Europe and North America) to critically engage with the narrative of “the” psychedelic renaissance, said to be sweeping through global mental health. Such accounts efface regional or linguistic differences and are dominated by the parochial concerns, framings, or institutional realities of regions of the world that come to stand in for the global, obfuscating diverse historical trajectories. We contribute to discussions concerning the parochialism of Science and Technology Studies (STS) and the need to “provincialize STS”, recognizing that “STS is dominated conceptually, linguistically, bodily, metaphysically and institutionally by provincial EuroAmerican and especially English-language practices” (Law and Lin 2017).

Listening to Brazilian psychedelic researchers helps us reveal some of the parochialism inherent in the monolithic representations of the psychedelic renaissance which are mainly articulated out of the USA, UK, Switzerland, Spain and the Netherlands. During our research with Brazilian psychedelic researchers, we often heard it said that it was noteworthy that despite being an emerging economy marked by abysmal social inequalities, Brazilian psychedelic science had hoisted itself to the third position internationally (by number of publications) in the field of psychedelic science. *Folha de S. Paulo* journalist Marcelo Leite might be credited with broadcasting this in his reading of Lawrence et al.’s (2021) article that spells out this league table in a way the original

article itself does not (it does not even discuss Brazil's astonishing position).² In conclusion, Leite notes that Brazil is ahead of Switzerland, which is anything but neutral within a Latin American context. A recent bibliometric article (Hadar et al. 2023) on the 100 most cited articles in psychedelic science indicate that it is led by the UK, the USA, Switzerland, Spain, and Brazil. We are not concerned with the relative accuracy of these proxies of impact. Rather, we examine how Brazil came to occupy this position of Psychedelic Nation: "In Brazil we have a large open sky laboratory. So maybe Brazil is the most psychedelic country in the world," a Brazilian neuroscientist told us in an interview. How have Brazilian researchers contributed to making this global movement? How can we undo the EuroAmerican provincialism of the psychedelic renaissance? What is gained by considering the specificities of this movement in and from Brazil?

Ayahuasca, an Amazonian decoction most commonly composed of *Banisteriopsis caapi* and *Psychotria viridis*, occupies a central position in Brazilian psychedelic science. In recent years this research paradigm has been challenged by Indigenous organizations who seek recognition of the "violence of the extraction of our knowledge" or that "the separation of knowledge into areas and the differentiation between molecules, substances, plants and products does not correspond to indigenous thinking about the spirit and life of the beings that heal us" (Declaration of the Fourth Indigenous Ayahuasca Conference 2022).³ Addressing the complex question of non-Indigenous ayahuasca uses, this gathering of representatives from more than 35 Indigenous nations began by affirming that "Ayahuasca is the connecting thread of life, an ancestral knowledge that has resisted colonization and remains alive in the culture of various indigenous peoples, its guardians since time immemorial." In the early twentieth century, along the Amazonian rubber tapping frontier, syncretic ceremonial ayahuasca practices blending Christian, afro-descendent and spiritist elements arose, known as the "ayahuasca religions" (Goulart 2004). Santo Daime, the oldest of these, was founded by Raimundo Irineu Serra, the grandson of enslaved peoples from the Brazilian northeast who had come to the Amazonian state of Acre during the second rubber boom in the 1910s, where he first consumed ayahuasca and had an encounter with what he took to be a manifestation of the Virgin Mary (Moreira and MacRae 2011). In Brazil, the religious use of ayahuasca is regulated by the National Drug Policy Council (CONAD), through an ordinance that also encourages scientific research on its therapeutical potentials, as we shall see below.

In this article, we point to the complex pathways of knowledge encounter and exchange between different regions of the world. As Harding (2016, 1070) noted, there has been a tendency to “conceptualize the global history of modern Western sciences as a one-way journey of dissemination from North to South.” Anderson (2002, 645–46) has argued that postcolonial technoscience has the potential to reveal the “complicity of Western knowledge with colonial projects” and destabilize the idea that “Western knowledge is objective, authoritative and universally applicable.” We take inspiration from Escobar (2007) and Mignolo (2007) on the coloniality of knowledge/power and its relation to the mythos of modernity. In *Beyond Imported Magic*, Medina, Marques, and Holmes (2014, 9) provide an essential genealogy of Latin American STS and its relations to dependency theory, Marxist critique, or the rejection of *cientificismo* articulated by Argentine mathematician Oscar Varsavsky in 1971 to denounce scientific objectivity “as an ideological extension of existing power relations”—echoes of which still reverberate today as we found in our research. Argentinian STS scholar Kreimer (2022, 102) notes: “Western science is something more complex than what happens in hegemonic countries.” Kreimer proposes the notion of “subordinated integration” to refer to the way researchers in subordinated regions participate in international scientific networks, sharing knowledge and providing access to regions of the Global South, while control over the orientation of inquiry is maintained by groups in dominant regions. Likewise, in his STS analysis of computing, Da Costa Marques (2022, 824–5) has argued that knowledge, theories, laws or conceptual frames that guide expert Brazilian knowledge practices “continue to come from outside Brazil in an overwhelming and excluding way,” installing discomfort.

Our Brazilian interlocutors, occupying the University and complying—in order to do so—with international norms and standards sometimes felt these to be at odds with local realities and demands, in line with what Da Costa Marques (2022, 819–20) refers to as a deeply rooted “Brazilian malaise.” Our interlocutors often spoke of finding themselves in a tricky intermediary position between, on the one hand, adherence to Global North standards (researchers willingly upheld these standards, in the context of recent attacks on science by the Bolsonaro administration) and, on the other, in relation to the practices of traditional, neotraditional or Indigenous communities who have long stewarded and built knowledge around these substances. In his Foreword to *Beyond Imported Magic*, Cueto (2014, viii) noted that the gap between scientific knowledge and the general public is wider in industrialized nations than in Latin America, where “practitioners

are close to the public reception of scientific knowledge, which they both produce and translate as they attempt to reconcile diverse lay and expert viewpoints.” This speaks to what we found while conducting our research on Brazilian psychedelic science. The aforementioned authors call for STS research that “moves the story of invention and innovation southward; study forms of local innovation and use” (Medina, Marques, and Holmes 2014, 3) or reveal “alternative local knowledges” (Anderson 2002, 646) while showing that the purportedly universal reach of science is deeply parochial and localized. In this article, we respond to this call in four ways. First, we examine two key facets of the Brazilian regulatory landscape in which psychedelic research unfolds, namely the existence of a well-developed Brazilian pharmaceutical innovation apparatus, and the legal status of the main substance studied in Brazilian psychedelic research: ayahuasca. Second, we show that unlike its international counterparts, Brazilian psychedelic science was—until very recently—mostly publicly funded science. This attests to an important point reiterated in much Latin American STS, namely that Latin American scientific production is competitive on the international stage despite vast asymmetries in financial capacity. Third, we demonstrate the role of local knowledge practices in shaping Brazilian psychedelic science through an analysis of the way *saúde coletiva* (collective health), psychiatric reform and harm reduction activism contributed to shaping Brazilian psychedelic science. Finally, we examine the intricate relations that bind ayahuasca religious formations and Brazilian research laboratories, attesting to Cueto’s point about the proximity between scientists and lay groups, and the care taken with the public reception of scientific knowledge.

Methods

This research was conducted in the context of a project called “Healing Encounters: reinventing an indigenous medicine in the clinic and beyond” which tracked the circulation of healing practices that make use of ayahuasca in three interrelated sites: the city, the forest, and the lab. The bulk of the empirical materials presented here were gathered by Pietro Benedito in 2021-2022 through 12 semi-structured interviews with clinicians, neuroscientists, and activists engaged in psychedelic research across Brazilian universities. In addition, we conducted participant observation in three psychedelic research laboratories and in a long list of Brazilian and international psychedelic science public events, meetings and conferences, such as the three World Ayahuasca Conferences held in 2014, 2016, and 2019, the

Multidisciplinary Association for Psychedelic Science conferences, the Interdisciplinary Conferences on Psychedelic Research, and a range of psychedelic investment forums, psychedelic science webinars, expert meetings with members of the US Food and Drug Administration (FDA) and the European Medicines Agency. As a project, we also developed an institutional collaboration with the University of Campinas Interdisciplinary Cooperation for Ayahuasca Research and Outreach (ICARO) group, with whom we held collaborative interdisciplinary monthly meetings during the pandemic, produced several publications, training programs and research dissemination initiatives such as the “*Encontros Psicodelicos*.”⁴ The project as a whole received formal ethical approval from several national ethics committees including the Brazilian *Comitê Nacional de Ética em Pesquisa* (CONEP).⁵ All participants explicitly consented to participating in the research, and were provided with opportunities to provide feedback on the presentations and publications derived from it.⁶

Regulation

Brazil is a signatory of the 1971 United Nations Convention on Psychotropic Substances which lists DMT (one of many active principles in ayahuasca) as a Schedule I controlled substance. Although the convention exempts traditional use of plants that contain proscribed substances, Brazil did not sign this clause (unlike Peru or Colombia). Ayahuasca’s legal status was the outcome of an administrative process through the National Drug Policy Council (CONAD), the agency responsible for drug legislation in Brazil (Labate and Feeney 2012). A Multidisciplinary Working Group composed of an anthropologist, a biochemist, a social worker, a psychiatrist, a lawyer, and representatives of six ayahuasca religious groups produced a technical opinion that ultimately led to supporting the freedom for *religious* uses of ayahuasca. It is noteworthy that no Indigenous communities took part in this consultation. The CONAD resolution further strengthens the alliance between science and non-indigenous ayahuasca practices, affirming that therapeutic uses will only be legal if scientific research supports it:

Any practice that involves the use of Ayahuasca for strictly therapeutic purposes...must be prohibited, until its efficiency is proven through scientific research carried out by research centers linked to academic institutions, complying with scientific methodologies. (CONAD 2010, 17:59)

This was a critical factor in the development of psychedelic science in Brazil, as indicated by a neuroscientist we interviewed:

The fact that it was used religiously, with consent, legalized, regulated, with a church and so on, that made all the difference. Our first paper on ayahuasca was published [long before] the British managed to do something similar. When have Brazilian researchers ever managed to get six years ahead of the British? It's extremely rare. And of course it wasn't a lack of MRI scanners [on the part of the British], but a lack of access to the psychedelic compound.

Much attention has been given to this regulatory specificity at the expense, we feel, of another series of regulatory questions concerning Brazil's position on the global stage of pharmaceutical innovation. Cassier and Correa (2019, 2) have shown that Brazil has a "a full-blown innovation system" consisting of partnerships between science, government and industry, a regulatory system that brings together intellectual property, ANVISA (Agência Nacional de Vigilância Sanitária, the National Health Surveillance Agency), inter-ministerial groups, and civil society organizations, to assess and regulate drugs. This peculiar regulatory landscape has enabled Brazil to blaze trails in securing access to drugs for its population, most emblematically in the case of antiretrovirals (Biehl 2004).

Building on his detailed analysis of Brazilian biomedical innovation, Kameda (2021) proposed the concept of "molecular sovereignty," and argues that an innovation model that overcomes dependency (on the Global North) requires national technological resources in the Global South to be tightly coupled to a political imaginary grounded in advancing national healthcare priorities that can secure access for all. One researcher (and activist) we interviewed clearly denounced the patenting process underway in the field of psychedelics, echoing this history:

the process of developing a patent...culminates in the privileging of big companies, which end up generating exorbitant profits. It's time to have clinical research in academia too, which doesn't just serve the interests of the pharmacological model. And this debate is not favorable to us, especially in the Global South.

Another researcher commented on the way that scientific value had been reduced to the FDA-backed model of pharmacological development (with Phases 1, 2, and 3) which excludes from the domain of "science" anything that does not fit this model of evidence.

In today's context, politically it's a bit like denialism. Like, "Oh, this is science and the rest is fake." But it's more complex....We need to think how science positions itself politically, including with regard to plurality. Because I believe that in Brazil we have other models, we have authentic and valuable forms of knowledge....It's no coincidence that there's always this attempt at colonization and capture. But, for example, ayahuasca is a field where...somehow...Europe, the United States...they owe a lot to Latin America and Brazil for the knowledge they've built up, the technology they've developed, so that they can exploit it.

The issue that some of our interlocutors pointed out partially stems from the dominance of an evaluation regime (the randomized clinical trial) that is ill-suited to build evidence around the therapeutic value of plants.

[Ayahuasca] does not fit the methodology of clinical trials which works for an isolated molecule, but they need to be able to patent at the end of the day. And a plant can't be patented, so that's that....And then we get into this vicious circle: there are no clinical trials because the companies don't want to fund them, and there's no evidence of therapeutic potential because it does not fit the [pharmacological] model.

Another interlocutor spoke of the dominance of this pharmacological tradition which was not always hegemonic in Brazil:

Here in Brazil there's this field of studying medicinal plants, phytotherapies... Here we have a great tradition of study, led by Professor Carlini. He brings a lot of this perspective of medicinal plants, not medicines. And within medicinal plants there's this whole field that can be applied, and then the challenges of ayahuasca come in. In a strictly pharmacological sense, we could think about pharma-ayahuasca, which would be to take and standardize beta-carbolines and DMT, but that in itself is already limiting because we don't just have the three beta-carbolines, which are the most studied: there are dozens, hundreds of others that we don't study. At the last ICPR congress, I saw the Brazilian community bringing up issues that people aren't discussing.

In the process of discussing our analysis with our collaborators, one psychedelic researcher took issue with the idea that Brazil has "a complete innovation system." In response to our mobilization of Biehl's analysis of the specificities of the Brazilian pharmaceutical innovation system they noted:

That reference is from 2004, shortly after Fernando Henrique Cardoso created the patent law that destroyed the Brazilian pharmaceutical industry. This argument may not hold up when considering patent registration indicators and our structural deficit in the pharmaceutical industry's balance of payments. This is related to the tension you point out at the end of the article, which is the root of the decolonial debate, about the fact that the patent system is a game we're already losing.

In summary, this interlocutor invites us to complexify the celebratory narrative of pharmaceutical sovereignty drawn by an STS body of work on Brazil's extraordinary experiment contesting international patent law to guarantee universal access to HIV medication. While it is true that Brazil benefits from a regulatory nexus characterized by institutional transversality which enables coproduction in the creation of knowledge around psychedelics, the playing field is not level. We return to this point in our conclusion.

Public Science

During an interview with a leading psychedelic researcher in Brazil we touched upon the fact that there was more to Brazil's role in psychedelic research than the availability and legality of ayahuasca in the country, which is also true for countries such as Peru or Colombia, which do not have a strong psychedelic research program:

the question of why Peru and Colombia didn't do it...and Brazil did... Well, they don't have the CNPq, they don't have Capes. The universities are almost all private. And when they're state-run, there are no grants. So it's a very different structure. There's practically no postgraduate scholarship system.... So this creates a differential for Brazil. And this is being lost.

Although this is changing, Brazilian psychedelic research is still predominantly carried out in public universities. Our interlocutors emphasized the pivotal role of public funding in their research endeavors and expressed concerns about budgetary cuts putting their laboratories at risk. In a Scopus analysis of 12,518 publications containing the search term "psychedelic" carried out in 2023, we found that the 4th and 6th funding sponsors were Brazilian public funders National Council for Scientific and Technological Development (CNPq, Conselho Nacional de Desenvolvimento Científico e Tecnológico) and Coordination for the Improvement of Higher Education Personnel (CAPES, Coordenação de Aperfeiçoamento de Pessoal de Nível

Superior). In 2021, the USA's NIH granted the first award for psychedelic research in more than fifty years. Johns Hopkins received USD4 million to study the impacts of psilocybin on tobacco addiction (Hartman & Margolin 2021). This was widely relayed and discussed in social media. Some of our colleagues in Brazil found this amusing, and expressed pride in the fact that they were conducting cutting-edge science in this field out of state-of-the-art research centers funded by the Federal government, which they felt placed them in the position of a more "developed" nation than the US.

In his book on the Brazilian psychedelic renaissance, journalist Marcelo Leite (2021, 144) cites an interview with neuroscientist Stevens Rehen, who spent many years abroad and told Leite: "We in Brazil have all the conditions, know-how and equipment to contribute (to the renaissance)." He notes there are Brazilian labs where competencies and expertise are concentrated rather than scattered across multiple centers, as is the case in labs abroad, placing Brazil in a very competitive place internationally. Souza, Filippo, and Casado (2018) note that scientific production in Brazil depends on Brazil's strong network of public universities. Despite being historically young, this teaching and research structure⁷ is considered the largest in Latin America, and is the pride of the country's academic community. Yet from the 2016 *coup d'état* which deposed Dilma Rousseff, until the end of Jair Bolsonaro's far-right government, Brazilian science has been under attack. In 2019, *Nature* (Angelo 2019) ran a feature explaining that: "Researchers in Brazil are up in arms after President Jair Bolsonaro's government announced that it had frozen 42 percent of the budget for the country's science and communications ministry." In 2022, rectors of 17 universities publicly announced the risk of having to close the doors of their institutions due to the lack of resources to pay cleaning staff and utility bills.⁹ The continuity of scholarships was affected, deeply impacting students' ability to access higher education (especially those in situations of social and economic vulnerability), which in turn affected labs' capacity to continue functioning without this labor force. It is from this challenging scenario that we examine Brazilian psychedelic science, as the topic was forefront in the interviews we conducted during this period. One interviewee told us: "I'm trying not to stop. I choose projects that are more of a priority and try to make them happen with little money, and a lot of desire" and explained that they bought equipment and reagents, and sometimes funded their students' travel to conferences out of their own pocket. Some centers have begun to turn toward private funding, some more happily than others:

Private funding impacts creativity because the company will say “I’m not interested in financing this, but I’ll finance something else.” And then...See, I’m not against it. On the contrary, I’m in favor of it...But what if that’s all there is?

While we recognize that the distinction between private and public is too simplistic to encompass the complexity of these different forms of funding, we close this section with several remarks. Firstly, our interlocutors called into question a dominant trope in scientific innovation which holds that groundbreaking science is necessarily expensive and high-tech. Such elitist and heroic ideologies of scientific worth are deeply parochial (to a few rich, heavily industrialized nations) and their imposition on the global scene (through tools like the Shanghai Ranking) has deleterious impacts on universities worldwide (Paperson 2017; Shahjahan, Blanco Ramírez, and Andreotti 2017). Secondly, part of what needs to be provincialized in the Eurocentric psychedelic renaissance is the global imposition of a patent-centered neoliberal ideology that makes the building of a psychedelic commons founded on open, publicly funded science, appear as an unrealistic utopia. One that has nevertheless been quietly realized in regions of the world such as Brazil, at least as long as its university system continued to benefit from public funding. As public funding has become scarcer in recent years, private enterprises and public-private partnerships have mushroomed to fill the gap.

#PSICODELICOSNOSUS: Psychedelics and Collective Health

The hashtag #PsicodelicosNoSUS (translatable as “Psychedelics in the [Brazilian] public health service”) appearing on social media platforms can be read as a response to US debates concerning “access” to psychedelics (George et al. 2020; Michaels et al. 2018; Thrul and Garcia-Romeu 2021). This hashtag is by no means representative of a vision shared among all Brazilian psychedelic researchers. Nevertheless, we introduce it here as an illustrative example of how psychedelics and medicine come into contact in Brazil.

The oldest entry we could find for #PsicodelicosnoSUS dates back to May 2016, in a note from the *Associação Psicodélica do Brasil* (APB, Brazilian Psychedelic Association)¹⁰ on “Deinstitutionalization and Psychedelics.” Deinstitutionalization is part of a broader psychiatric reform movement that seeks to develop community mental health programs instead of psychiatric incarceration (Amarante and Nunes 2018; Pitta 2011).

APB, which describes itself as a drug policy reform non-profit organization, has been deeply engaged in anti-prohibitionist advocacy. During the pandemic, APB organized a number of “live” events in which the hashtag #PsicodélicosnoSUS circulated, first in the comments of this event on APB’s YouTube channel and then in the posts that were generated around this on Instagram, Facebook, and Twitter. APB published a volume “Psychedelics in Brazil: Science and Health” (Beserra and Rodrigues 2020) bringing together chapters written by psychologists, psychopharmacologists, bioethicists, economists, and harm reduction specialists, to address the impact of the first years of the Bolsonaro administration and its relation to scientific evidence, specifically regarding psychoactive substances. The theme of psychedelics in the SUS was also at the heart of the “First Brazilian Congress of Psychedelics,” in 2022, held at *Fiocruz*, one of the country’s most iconic public research institutions in Rio de Janeiro. In an interview, one of the conference organizers noted that hosting this event at *Fiocruz* was a significant milestone in ensuring psychedelic-assisted therapies do not become restricted to an “economic elite” and remain close to discussions and stakeholders that center the SUS (Sistema Único de Saúde, Brazil’s public health service) and the Ministry of Health (Ferrari 2022).

Brazil has a long and unique history of *saúde coletiva* (collective health, in contradistinction to public health). In an article published in 2007 in the *American Journal of Public Health*, sociologist Nísia Trindade Lima (who became Minister of Health during Lula’s third presidency in 2023) retraces the common roots of sociology and public health in Brazil’s project of nation building, showing the long-standing integration of two systems of knowledge (Lima 2007). Brazil’s early Republic (1889-1930) saw great political concern with questions of social hygiene, disease alleviation and malnutrition. Building a strong nation required addressing the sanitary conditions of poverty. The Social Medicine paradigm, and the Collective Health movement that it birthed are held to have provided—from Latin America—a strong alternative to the biomedical reductionism that marked EuroAmerican forms of public health. Most notably, these movements insisted on centering the social and political nature of ill-health (Paim and Almeida Filho 2014) and that political and economic determinants of well-being be approached scientifically alongside biological factors (Osmo and Schraiber 2015). Paim, who has studied the comparative evolution of public health reforms internationally and is an authority on Brazil’s SUS, writes of the paradigm of *saúde coletiva* as a project of social reform founded on the principles of democratizing healthcare (emerging in a

period of transition out of military rule in the early 1980s). *Saúde coletiva* is marked by a critical distance from global public health approaches, with the objective of overcoming public health's "dominant biologism, naturalization of social life, submission to the clinic and dependence on the hegemonic medical model and subordination to medical faculties" (Paim and Almeida Filho 1998, 310).

During the interviews we conducted with Brazilian psychedelic researchers and advocates, we found that many had, through their insertion in Brazilian universities, been sensitized to a way of considering the interplay between social and biological factors in health that was specific to the paradigm of *saúde coletiva*. Many had a history of involvement in harm reduction programs, anti-(drug)prohibition movements and—for some—had also been involved in the *reforma psiquiátrica* (psychiatric reform), and the movement against mental asylums and in favor of community mental health.

One statement made by a Brazilian psychologist and psychedelic activist caught our attention, as he notes how the question of access to psychedelic treatments and the pharmacological reductionism he attributes to EuroAmerican psychedelic hype look for someone like him, grounded in the psychiatric reform movement:

Back in the US...I see some questions about how to make psychedelics more accessible...something that we here...already understand better. I come from the mental health field, I come from the anti-asylum fight. I know (psychedelics) are not going to be a new drug that will revolutionize everything.

In a live event organized by our research project, ICARO and the *Ciência Psicodélica* portal, we invited one of the founders of APB to talk about Psychedelic Militancy:

This model [therapy with psychedelics] is not an import for us. This concern in the US with the emergence of clinics that will cost in excess of 20,000 reais for a session of psychedelic therapy... We understand that we cannot wait for the big companies to come here to start having this debate. The time is now. Either we have this debate now or we don't, and even so the chance of being run over is enormous... We want to think of a model that guarantees accessibility, that respects our cultural roots. This model is still under construction and depends on all the reflections that we need to have as Brazilians, as populations from the Global South, as people who go through these experiences, this inequality, this country the way it is.

Although there is much to celebrate about Brazil's exceptional project of democratized access to healthcare, it has been vastly underfunded and plagued by neoliberal reforms that make it ineffective or dependent on private healthcare infrastructures. "Universal" healthcare coverage is far from universal, and marginalized groups continue to suffer disproportionate discrimination and difficulties in accessing services. In this sense, achieving #PsicodelicosNoSUS would not guarantee psychedelics are accessible to all. Some of the interviewees also brought forth their experience with harm reduction and the anti-drug prohibition struggle. Harm Reduction developed in Brazil in 1989, in the port of Santos/SP, where the Dutch experience of exchanging syringes for injecting drug users was replicated, considerably reducing the spread of HIV (Rodrigues 2016; see also Bueno 2024 on the role of trans care strategies and knowledge in Brazilian harm reduction). Brazilian harm reduction concepts and practices emerging from the street resist elitist, privatized ideas about healthcare: they are an integral part of the Brazilian psychedelic research and policy arena. This lineage of harm reduction meticulously calls out the eugenicist, colonial, and racist ideologies of neoliberal forms of sanitary governance that pervade the policing of drugs in Brazil (Surjus and Passador 2021). We have observed the way this strengthens discussions of psychedelics by anchoring them in broader discussions on racism and structural violence in healthcare. Such ideas are brought back to the discussion table in forums where ayahuasca, psychedelics, and cannabis research and policy are debated, even though this does not happen without conflict. Vulnerabilized groups participate in lesser numbers in these spaces even though they built harm reduction in the country (Bueno 2024), so this lineage of harm reduction arising from *as ruas* (the streets) is gradually coming to be erased as the Brazilian psychedelic landscape becomes more mainstream and privatized. In its place, more elite forms of harm reduction arising from rave culture are coming to be more central in the Brazilian psychedelic arena (Bueno and Benedito 2024).

We see Brazilian debates around psychedelics and access engaging with and responding to concerns emerging from other national contexts. For example, academic discussions about psychedelics in Brazil often referenced the fact that Brazil has a universal healthcare system, unlike the US, making transpositions from one national context to the other difficult. Such contrasts inform the way Brazilian researchers reflect upon and articulate their positions regarding the specificity of psychedelic access in Brazil vis-à-vis other national contexts.

Church–lab Relations

I think the biggest challenge is also the reason we're able to work here. Because ayahuasca is a substance that is part of Brazilian culture. So I think the biggest challenge is that you're dealing with a substance that has different cultural uses....It's a substance that's accessible here in Brazil, it's already being used, it doesn't need science to be used, it's not a substance that was waiting for science to validate it before it could be used, it's already there. (Brazilian psychedelic researcher)

So far we have described the specific Brazilian context which benefits from extensive federally and state-funded research and regulatory infrastructure, alongside a longstanding tradition of *saúde coletiva* which considers social and medical questions as entwined and mutually determined. State support and *saúde coletiva* form the broader context in which Brazilian psychedelic researchers come up in the world. In this section we argue that not only does Brazil have a psychedelic research program that can weigh in at the international level because of this research infrastructure, but that it presents idiosyncratic modes of knowledge production that often get written out of the final publications in international journals, but are constitutive to the process of building knowledge. In a sense, we could say that many Brazilian psychedelic researchers have an ambivalent relation to the processes of biomedicalization and molecularization of psychedelic efficacy that their research nevertheless contributes to.

Part of this stems from the ties that bind medical researchers to what are often referred to as “the cultural uses” of ayahuasca in the country. These cultural uses include first and foremost the myriad traditional Indigenous practices, which were demonized and forbidden under colonialism. They also encompass the three main “ayahuasca religions” (Santo Daime, Barquinha, and União do Vegetal) and the many offshoots that these post-colonial ceremonial practices gave rise to, blending Afro-Brazilian, Spiritist, neo-shamanic, or therapeutic elements. Although these churches are all organized around the ceremonial use of ayahuasca, they are marked by significant differences between them and amid the different “lines” that make them up. When the ayahuasca religions Santo Daime, Barquinha, and União do Vegetal were established in the early twentieth century, on the rubber tapping frontier, their demographics were mostly black and *mestiço* (Goulart 2004). Indigenous artist and scholar Daiara Tukano (2022) calls attention to the fact that despite originating in Amazonian cultures, ayahuasca today circulates mostly among privileged

white groups, who have easier access to rituals, which are often expensive and difficult to access for lower income groups. This whitening and elitization of religious ayahuasca practices includes adopting markedly conservative positions on matters of gender (such as overt homophobia and transphobia), or at times support for extreme right ideologies. Prominent figures of the União do Vegetal religion have openly supported Bolsonaro (Minuano 2020), leading to important controversies within and between the ayahuasca churches. While promoting ideals of universal love, gratitude, and transcendence, these spaces at times reproduce racist, sexist, and transphobic violence (Bueno and Benedito 2024).

In our research we found that medical researchers in Brazilian universities tend to have tighter webs of relations with the ayahuasca churches than with Indigenous communities. An early example of this, which ties into our earlier point about Brazil being a “*laboratório a céu aberto*,” an open sky laboratory, is the Hoasca Project conducted in the 1990s. This collaborative project, bringing together Finnish, US, and Brazilian researchers was the first to assess the effects of long-term ritual ayahuasca use among humans. It was supported by the ayahuasca church UDV (União do Vegetal), which supplied the ayahuasca (known as Hoasca in the UDV). Fifteen members of the UDV who had been drinking Hoasca for more than ten years were studied alongside a control group who had never consumed the beverage. The project description reads: “The scientists accepted an invitation from Mestre Florêncio Siqueira de Carvalho, responsible at the time for the Caupurí Centre in Manaus (AM), and carried out the data collection phase during the summer of 1993.” Mestre Florêncio was one of the volunteers and later said: “the results gave me more conviction about what the União do Vegetal is.”¹⁰ This study resulted in numerous publications (e.g., Callaway et al. 1999; Da Silveira et al. 2005) which weighed heavily in support of the safety of ayahuasca use in real-world situations internationally. Our interviews revealed the intricate ways in which Labs and Churches have continued to collaborate to access the medicine and safely proceed with its administration in clinical contexts. As one researcher relays:

When I started my first experiment with ayahuasca...We went to Santo Daime, to Mestre X, and he gave us a bottle of the tea. And that was never a problem. This would be unimaginable in a European country, or the United States, or Israel. The regulations there are far too complex.

Another researcher who was not a member of an ayahuasca Church and had relatively little experience with the “tea,” explained that their clinical

team often called upon the leadership of the Church they had partnered with to access the medicine and ask for advice on managing certain events with patients: “The ayahuasca communities have experience, to the extent that when we started doing this research, we had the support of the communities and would call on them: ‘This happened to this patient, what’s the procedure, how should we proceed?’” They continue:

If I’m going to look for some kind of answer about ayahuasca, I’m not going to look to science, I’m going to look to the ayahuasca religions. You see, the urban use of ayahuasca, we’re talking about almost a hundred years of urban use of ayahuasca. The first Santo Daime organization dates back to 1930. So, really, we’re talking about ninety years of experience using ayahuasca frequently and building evidence that we can learn from.

Brazilian psychedelic researchers have to contend more directly, perhaps, with the impact of their work given this proximity to local cultures of ayahuasca use. The researcher continues to explain that they received precise advice from a *Mestre* (church leader) in order to help “determine how much ayahuasca we were going to give to our patients.” They explain:

I rang (X) up and said: “(x), what, how much do you think we should give?” It’s a very curious kind of discussion because from (x)’s point of view it’s a pointless question. He said: “That’s not the way I work. I don’t know what dose to give the person. I give a dose and I feel if that person needs more, or if it’s good enough, or if it’s too much. I feel the person as they evolve through the experience.” But we had to come up with a number, so he proposed: “then let’s do a ml per kg, because this ayahuasca that I’ve prepared, I think, in this quantity will bring an experience, on average for the population, of breaking boundaries, a psychedelic experience, really, but at the same time, not such an intense experience.”

Presenting themselves as a layperson rather than an ayahuasca community practitioner, the lab researcher we interviewed outlined the challenges of putting together the study, passing ethics committees, recruiting trial participants, and navigating the complexities inherent in having members of an ayahuasca church drink ayahuasca in a university hospital.

The difficulty that wasn’t clear in my mind was the resistance that comes from the groups that use ayahuasca (for ceremonial use), which is to say that science is almost an enemy of that process. That said, we encountered people who understand both the power and the benefit that science would eventually

bring, and indeed has brought, which involves understanding what ayahuasca is, the effect of ayahuasca on the brain or other regions of the body, the clarity that...the establishment of a regulatory framework around any substance has to go through science in some way, as science enables the determination of safety standards....Working with a substance that has this cultural characteristic brings a challenge because, naturally, we need to be aware, as scientists, that we are working with a substance that for a very significant group of people is a sacrament. So, to understand the respect that must be shown when we bring this type of substance into a research laboratory....The ayahuasca religions with which we have liaised in order to have scientific collaborations, be it Santo Daime...or Barquinha, which...supplied the ayahuasca that we used in our clinical trials...or the UDV....Today Brazilian science on psychedelics has a world-leading role, we're doing things that the world isn't doing. And this, in large part, comes from the fruitful relationship that we have established between science and the ayahuasca communities.

Some Brazilian psychedelic researchers are members (or former members) of ayahuasca churches, sometimes even heading these organizations' research committees and actively liaising between the community and the lab, or formulating research projects or public outreach and that are then conducted in collaboration. One psychologist we interviewed and who received a PhD in *saúde coletiva* explains that before embarking on his doctoral research: "I used to be *fardado*" (carry the uniform of the *Santo Daime* church). Other researchers had no prior experience of ayahuasca or psychedelics:

I had never taken ayahuasca, nor did I know about the existence of ayahuasca religions....After I accepted the project, after I started reading and started finding out about ayahuasca, I was curious to try it and I said: since I'm going to study this, I need to, I think it's important for me to try, for me to get closer to the subject I'm studying, to have personal experience.

It was generally felt to be easier in Brazil than elsewhere, to be an open ayahuasca user and to do research on ayahuasca, but several interviewees noted that they did feel their research credibility and objectivity could be questioned if they were transparent about their personal use:

Obviously, this has been considered old-fashioned for a long time by you social scientists, but there was a time when people said: "Oh, science is going to supplant religion, right? Knowledge will resolve so-called beliefs," but the fact is that beliefs....They forgot to combine this with the way

human beings work, right? So from the moment that I declare that I drink ayahuasca, that I am engaged in religious ayahuasca practice, then all I write can only be pseudoscience, according to some critics, right? It is not a scientific perspective, it is not objective. Any element within the scientific discourse that legitimizes my position, my engagement, what engages me, I will repeat without much criticism, right?

Conclusion

Europe is not the world. Europe is a province of the world. But through imperialism, colonialism, neo-colonialism, globalization and other “imperial designs” it moved itself to the centre of the world. This imperial/colonial move resulted in the marginalisation, subjugation and displacement of other provinces of the world. It is within this context that the strategy of “deprovincializing”...becomes important. (Ndlovu-Gatsheni 2019)

In this article we sought to outline trajectories for deprovincializing the psychedelic renaissance from Brazil. We showed that Brazil’s specific regulatory framework (ayahuasca’s legality, as much as Brazil’s pharmaceutical innovation regulatory capacity) are key elements that enabled Brazilian psychedelic researchers to develop an original research paradigm of international reach. Many interviewees lament the way international scientific standards—which they see as shaped by Big Pharma’s nefarious influence on international regulatory standards—impedes local know-how and capacity to gain credibility, although there are growing signs that the medicalization of psychedelics is advancing in Brazil. We showed that contrary to much of the psychedelic research conducted in North America and Western Europe and funded by philanthropy and Silicon Valley (Devenot, Conner, and Doyle 2022; Tvorun-Dunn 2022), in Brazil this research was until very recently conducted mostly in public universities. Further, some of the historical figures that have led Brazilian psychedelic research were grounded in the Brazilian paradigm of *saúde coletiva*, which provides a distinctly counter-hegemonic Latin American critique of the global mental health agenda, with its individualizing tendencies. Finally, we showed how the deep ties that link clinical researchers to traditional practitioners in the ayahuasca religions provides a distinct landscape that sets apart Brazilian psychedelic science from that conducted beyond its shores. One of the main pitfalls of our argument is that in calling for the provincialization of the psychedelic renaissance from Brazil we have fallen back on the register of the nation by calling attention to Brazil’s regulatory specificity and infrastructure of public science and *saúde coletiva*. We are conscious

that these projects—public science and *saúde coletiva*—are incomplete and imperfect, leaving many outside their reach. Nevertheless, it felt important to name the achievements of the Brazilian psychedelic research program conducted through the elaborate and fragile infrastructure of public universities, which was being undone as we conducted our investigation.

In an article on Latin American perspectives on the therapeutic use of psychedelics (Beserra, Rodrigues, and Monteiro 2021), the authors note that delivering psychedelic-assisted therapies on the continent requires paying close attention to the entangled histories of the groups whose knowledges, presence, access, or capacity to exist in such spaces are at stake, from Indigenous to enslaved afro-descendants, migrant colonizers, to those who define the regimes of proof through which psychedelics are rolled out. They remind the reader that it is not possible to distinguish sacred plants from the knowledge practices and rituals within which they came to be embedded. “The challenge of creating a global South base that connects us with a vast research field in psychedelic therapy, in which science, medicine and psychotherapy meet, lies in the study of the applications of master plants and their respective forms of preparation and rituals” (Beserra, Rodrigues, and Monteiro 2021, 113). They warn that importing science from the Global North may have a very high cost for these practices and rituals, and call for the creation of a praxis that “does not suppress or efface what our ancestors already knew such as practices, tools, ecological and preservation strategies, deep knowledge of the ontological structures of power plants and their rites, as well as community care, support networks and popular medicine based on an ecological ethics of care.”

We conclude this article with a brief reflection on the tension we see between decolonial and postcolonial perspectives on provincialization, as it pertains to debates surrounding the provincialization of STS. Provincialization was most cogently articulated by Chakrabarty (2008) in *Provincialising Europe*, and then taken up by multiple authors. In the rich debates that followed, scholars took different positions regarding the legacy of EuroAmerican ideas and their impact on the capacity for non-EuroAmerican regions of the world to know and do otherwise; that is, outside the bounds of knowledge-practices as they have been defined by Europe’s epistemic hegemony. Chakrabarty (2008, 255) advocates for a genteel relationship: “For at the end of European imperialism, European thought is a gift to all of us. We can talk of provincializing it only in an anti-colonial spirit of gratitude.” In a similar vein, within STS, Vessuri (2019) has advocated for a spirit of global “conviviality” between knowledges and practitioners in the Global North and Global South. Conversely,

many decolonial thinkers wonder to what extent this is possible, opposing the colonial wound (Mignolo 2007) or the notion of epistemicide (Santos 2016) to this “spirit of gratitude.” Our analysis of Brazilian psychedelic science has mainly focused on the good—if asymmetrical—relations between Brazilian laboratories and what Kreimer (2022) refers to as hegemonic countries’ standards, at the expense of a detailed analysis of the very high costs that this research paradigm has on Brazilian Indigenous peoples’ and traditional practitioners’ capacity to define what ayahuasca is, or is not. We wonder how far the (de)provincialization of the psychedelic renaissance from Brazil can go if this research paradigm serves mainly to connect large Christianized ayahuasca religious formations with biomedical research laboratories, to the exclusion of Indigenous peoples and traditional practitioners’ ways of knowing.


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Notes

1. Accessed on July 18th 2024: <https://psychedelicalpha.com/data/psychedelic-drug-development-tracker>.
2. Accessed on March 18th 2024: <https://chacruna-la.org/a-ciencia-psicodelica-no-brasil/>
3. Accessed on March 25th 2024: <https://ayahuascaconferenciaindigena.org/en/>

4. Accessed on October 17th 2024: [https://www.cienciapsicodelica.com.br/encontros-
psicodelicos](https://www.cienciapsicodelica.com.br/encontros-psicodelicos)
5. Certificate of Ethical Appraisal: 39146020.7.0000.5404.
6. A version of this article was shared with participants, who provided valuable feedback which we have integrated into the final text.
7. Souza, Filippo, and Casado (2018) note that in the 1930s, a European-influenced model of higher education was introduced into Brazil. The 1960s and 1970s saw the creation of new universities, and the 2000s marked a major expansion of public universities, backed by the federal government. Brazil has 69 federal universities across 314 campuses, and 43 state universities. Of the 112 public universities, 2 are in the Federal District, 9 in the centre-west, 35 in the northeast, 16 in the north, 29 in the southeast, and 20 in the south. The southeast has the highest scientific output (Sousa et al. 2022).
8. Accessed on October 25, 2023: [https://oglobo.globo.com/brasil/educacao/
noticia/2022/08/cortes-deixam-17-universidades-federais-sob-risco-de-parar-
em-2022.ghtml](https://oglobo.globo.com/brasil/educacao/noticia/2022/08/cortes-deixam-17-universidades-federais-sob-risco-de-parar-em-2022.ghtml)
9. Accessed on October 17, 2024: [https://www.facebook.com/associa
caopsicodelica/posts/pfbid0EYza269VZpQ5Mcs7GS5WSQKdHnj55Z9va5
6SAnteWj9TSxQ22VMneRpMAomWoacI](https://www.facebook.com/associa.caopsicodelica/posts/pfbid0EYza269VZpQ5Mcs7GS5WSQKdHnj55Z9va56SAnteWj9TSxQ22VMneRpMAomWoacI)
10. Accessed on October 25, 2023: [https://udv.org.br/pesquisas-cientificas/projeto-
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Pietro Benedito holds a PhD in sociology from UFSCar (Universidade Federal de São Carlos) in Brazil. His dissertation (“Mary who teaches me how to be a woman:” Gender and religion within Santo Daime”) was based on fieldwork in the ayahuasca religion Santo Daime. It traces the impact of popular Catholicism, environmentalism, New Age practices and the development of the Sacred Feminine within the community. Pietro was visiting researcher in the Department of Religion at the University of Florida, and is a member of NEIP (*Interdisciplinary centre for the study of psychoactives*) and of the ERC Healing Encounters team at the CERMES3 in Paris.

Emilia Sanabria is an anthropologist of science and the body based at the CNRS in France. She is a member of the CERMES3 (Centre for research on medicine, science, health, mental health, and society) in Paris. Between 2018 and 2024 she was PI of the ERC-funded project “HealingEncounters: Reinventing an indigenous medicine in the clinic and beyond” which examined the expansion and prolific reinventions of healing practices that make use of the Amazonian herbal brew ayahuasca: <https://encounters.cnrs.fr/en/> Prior to this, Emilia conducted research on menstruation and hormonal practices in Brazil, leading to the publication of her monograph “Plastic Bodies: Sex hormones and menstrual suppression in Brazil” (Duke University Press 2016).