# AYAHUASCA, ENTHEOGENIC EDUCATION & PUBLIC POLICY

by

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#### **Abstract**

Ayahuasca is an entheogenic decoction prepared from two Amazonian plants containing controlled substances, including dimethyltryptamine. Traditionally drunk ritually (and revered as a healing "plant teacher") by Amazonian indigenous and *mestizo* peoples, in the 20<sup>th</sup> century ayahuasca became a sacrament for several new Brazilian religions. One of these, the Santo Daime, has expanded into Canada, where in 2001 a Montreal-based chapter applied for a federal legal exemption to allow drinking of the brew in its rituals.

This dissertation undertakes a critical policy analysis of Health Canada's decision on the Santo Daime request, using government documents obtained through an Access to Information request as data. My goals are to illustrate how modern stereotypes about "drugs" and "drug abuse" in dominant public and political discourses may hinder well-informed policy decision making about ayahuasca, and to consider how entheogenic practices such as ayahuasca drinking are traditional indigenous ways of knowing that should be valued, rather than reflexively demonized and criminalized. My research method is a critical discourse analysis approach to policy analysis, an eclectic means of demonstrating how language contributes to conceptual frames and political responses to public policy issues. I combine insights from recent research on language, discourse and public policy to show how ayahuasca has become an unexpected policy conundrum for liberal democratic states attempting to balance competing interests of criminal justice, public health, and human rights such as religious freedom.

I trace ayahuasca's trajectory as a contemporary policy concern by sketching histories of psychoactive substance use, today's international drug control regime, and the discursive foundations of its underlying drug war paradigm. Regarding Health Canada's 2006 decision "in principle" to recommend exemption for the Daime brew, I critique how the government defined ayahuasca as a policy problem, what policy stakeholders it considered in its decision making, and what knowledge about ayahuasca it used. To conclude, I explore modern schooling's systemic antipathy to wonder and awe, and propose that policy reforms allowing circumspect use of entheogens such as ayahuasca as cognitive tools may help stimulate re-enchantment and appreciation of the need to address human and planetary ecological predicaments of the 21<sup>st</sup> century.

# **Preface**

The Appendix to this dissertation is the result of research and writing I did during my doctoral program that was published as an article titled "Ayahuasca healing beyond the Amazon: The globalization of a traditional indigenous entheogenic practice" in *Global Networks: A Journal of Transnational Affairs*, volume 9, issue 1, in January 2009 (pp. 117-136). It is reprinted here with the permission of the journal. Other than pagination, I have kept the style, punctuation, formatting and other elements of the text the same as the final published version.

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#### **List of Abbreviations**

CDA = critical discourse analysis

CDSA = Controlled Drugs and Substances Act (of Canada)

CEFLURIS = Centro Eclético da Fluente Luz Universal Raimundo Irineu Serra

CEFLUSMME = Centro Eclético da Fluente Luz Universal Sebastião Mota de Melo

CHLQ = Church of the Holy Light of the Queen

CONAD = Conselho Nacional Antidrogas, or National Antidrugs Council (of Brazil)

CONFEN = Conselho Federal de Entorpecentes, or Federal Narcotics Counsel (of Brazil)

DMT = N, N-dimethyltryptamine

INCB = International Narcotics Control Board

LSD = lysergic acid diethylamide

MAO = monoamine oxidase

MMT = methadone maintenance treatment

P/Ts = Provinces and Territories (of Canada)

RCMP = Royal Canadian Mounted Police

RFRA = *Religious Freedom Restoration Act* (of the United States)

UDV = União do Vegetal

UN = United Nations

WCTU = Women's Christian Temperance Union

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## Chapter 1 – Introduction

The 21<sup>st</sup> century presents an unprecedented set of challenges and opportunities for the human species. Since the advent of modern economics, science and governance a few hundred years ago, the growth of the human population and our species' ability to impact our environment have created a set of ecological problems that, unless addressed, will radically transform planetary ecosystems. Critics of the modern imperative for economic growth (or "development"), with its insatiable appetite for non-renewable resources and drive to control the very forces of life itself, warn that this unchecked growth threatens to destabilize the delicate homeostasis that has been the foundation of biological evolution on earth. However, many feel at a loss to explain what—other than complete ecological or economic collapse (or both)—might compel us collectively to recognize the nature of our predicament and, if there is still time, take action to avert its foreseeable consequences. Public opinion and political action would each seem to require the other in order to overcome the inertia of the present unsustainable economic/ecological status quo, yet neither shows leadership commensurate with the apparent urgency of the matter.

At the same time, public education and modern ways of knowing may also be impediments to deeper systemic cultural changes. It may be that contemporary schooling is not an optimal means for cultivating awareness of and generating timely, creative solutions to the human ecological predicament. Perhaps a very different kind of learning is required, one that has served other human cultures well for millennia, but has been ignored or dismissed because of the hubris of modern governmental, ecclesiastical, academic and other authorities. This dissertation considers the possibility that ayahuasca, a preparation discovered and revered as a "plant teacher" by peoples of the Amazon rain forest, may offer a kind of ecological learning that is urgently needed at this moment in our species' cultural evolutionary trajectory in a global planetary context; however, it also considers how ill-founded modern drug control policies present an obstacle to recognizing this possibility. To begin, I will briefly describe what ayahuasca is, and how and why people in both traditional Amazonian and modern globalized contexts drink it, and then will discuss the overall goal and subsidiary objectives of my research.

Ayahuasca (pronounced "EYE-uh-WAH-skuh") is an entheogenic brew made from Amazonian plants that has been revered in the region for centuries for its medicinal and mystical effects.<sup>1</sup> The word "ayahuasca" comes from the Quechua language, spoken by indigenous peoples of the Western Amazonian and highland regions of Ecuador and Peru, in which it denotes a species of jungle liana, Banisteriopsis caapi (Spruce ex Griseb.) C.V. Morton. Its literal translation as "spirit vine" or "vine of the soul" alludes to its uses in traditional Amazonian indigenous cultural belief systems to connect with ancestor or forest spirits (Beyer, 2009, chap. 20). In contemporary English, ayahuasca may refer to B. caapi per se, but more commonly the term refers to a decoction prepared from B. caapi and the leaves of another plant, Psychotria viridis Ruiz & Pav. Although ayahuasca is the most common term for the brew in modern academic discourses, it has many other names in various Amazonian indigenous languages (including yagé in Tukano and *natem* in Shuar) (Luna, 1986), and is also known as Daime tea or "hoasca" by different Brazilian religious groups, discussed below. Significantly, B. caapi and P. viridis each contain psychoactive substances—harmala alkaloids and dimethyltryptamine, respectively—the former of which are illegal in some jurisdictions, including Canada, and the latter universally prohibited through the international drug control regime's 1971 Convention on Psychotropic Substances (United Nations, 1971). Despite this, in the last few decades of the 20<sup>th</sup> century, and the first decade of the 21<sup>st</sup> century, various spiritual, healing, and other types of ayahuasca drinking practices have been taken up in places beyond the Amazon. Importantly, this has included the establishment of chapters of the Brazilian Santo Daime ayahuasca religion in Canada, one of which, called Céu do Montreal, has sought an exemption from Canada's Controlled Drugs and Substances Act to allow its members to freely practice their religion.

Ayahuasca is a pharmacologically unique preparation, as the primary alkaloids in its constituent plants—*B. caapi* and *P. viridis*—produce a biochemical synergy in the human body that results

<sup>&</sup>lt;sup>1</sup> "Entheogen" is a word coined by scholars to denote a category of plants and chemicals that have traditionally been used for spiritual purposes to induce visionary or mystical experiences (Ruck, Bigwood, Staples, Ott & Wasson, 1979). It was proposed because the words "hallucinogen" and "psychedelic"—which have particular cultural and political resonances in the medical and popular discourses whence they are derived—do not connote the spiritual or sacred nature of the practices, beliefs and experiences common to many, especially pre-modern indigenous, psychoactive substance use traditions. Many psychoactive substances used in traditional entheogenic practices have also been regarded as plant teachers, hence the concept of entheogenic education (Tupper, 2002a).

<sup>&</sup>lt;sup>2</sup> To avoid confusion, throughout this text I refer to the *Banisteriopsis caapi* vine by its taxonomical name, and reserve "ayahuasca" for the common *B. caapi* and *P. viridis* decoction or brew. When referring specifically to the Santo Daime's sacramental brew, I use the term Daime tea.

in profound altered states of consciousness. Its capacity to induce remarkable visions and ideations has made it one of the most valued medicines in the traditional Amazonian indigenous pharmacopoeia, esteemed for its diagnostic, healing and divinatory properties. For the same reason, ayahuasca has recently become an object of curiosity for people seeking to experience its psychosomatic effects, an object of inquiry for researchers studying it from a variety of academic disciplines, an object of post-colonial cultural controversy for indigenous peoples concerned about protecting their intellectual and spiritual heritage, and an object of legal and policy concern for governments in various parts of the world confronted by its use within their jurisdictions. The brew is thus a nexus for sociological trends such as new religious movements and alternative healing practices that defy conventional modern understandings of religion and medicine. Ayahuasca is also a significant part of a revived field of academic inquiry into the potential beneficial uses of psychedelics or entheogens, <sup>3</sup> a topic which for several decades was mostly shunned by mainstream academia and elided in dominant public and political discourses informed by the Western mechanistic worldview. Modern scientific knowledge about ayahuasca is paltry in comparison with the rich oral indigenous, *mestizo* and religious experientiallyinformed knowledge of the brew, its constituent plants, and its uses, effects, risks and benefits.<sup>4</sup> However, while academic research on ayahuasca has gradually increased in the past few decades, it has not matched the scope or pace of the transnational spread of contemporary drinking practices.

#### 1.1 – Goal, Objectives & Overview

My own interest in ayahuasca began as a personal one, but it has since evolved to become academic, political, scientific and philosophical as well. Accordingly, this dissertation takes an

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<sup>&</sup>lt;sup>3</sup> For example, the organizers of the Multidisciplinary Association for Psychedelic Studies (MAPS) 2010 "Psychedelic Science in the 21<sup>st</sup> Century" conference added an additional track devoted to ayahuasca after they unexpectedly received a large number of abtract submissions relating to the brew (Labate & Cavnar, 2010). <sup>4</sup> It is beyond the scope of my research to delve into the rich ethnographic literature on uses of *B. caapi* and its assorted preparations among various indigenous cultures of the Amazon with past and/or present traditions incorporating the brew (Luna, 1986). The term *mestizo* (Spanish for "mixed," analogous to the French-Canadian *métis*) is, as Beyer (2009) explains, "a complex identity, a form of hybridity, contradictory and ambivalent" (p. 294). In a strict sense, it refers to the descendants of conjugal relationships between immigrant white men and local aboriginal women (deriving from racialized colonial discourses), but it equally commonly refers to indigenous people acculturated or assimilated to varying degrees (Luna, 1986, p. 15). According to Beyer (2009), "in general, mestizos are persons of varying degrees of Indian ancestry who are accepted as participants in the dominant Hispanic culture" (p. 295).

interdisciplinary approach—drawing broadly from indigenous studies, the humanities, and various disciplines in the natural, health and social sciences—to addressing some of the pragmatic policy and theoretical educational questions engendered by ayahuasca's egress from the Amazon rain forest and subsequent spread around the world. Beyond this, it attempts to contribute to or extend an intercultural dialogue, presenting ideas about knowledge forms, learning modalities and spiritual practices adopted or derived from traditional indigenous cultural systems—and hence generally foreign to or eschewed by dominant Western culture—in a thoroughly modern (i.e., academic discursive) context. Importantly, it is not simply a theoretical exercise, but addresses concrete questions of justice, well-being and human rights that have real-world implications for individuals, families, communities, and governments, not to mention the global planetary ecosystem.

Ayahuasca and its increasing transnational uptake outside South America is a conundrum for policy makers who are uncertain how to respond to its consumption by a public who do not fit the stereotypical image of illegal drug users (i.e., as criminal, or sick, or both). Ayahuasca drinking beyond the Amazon presents a particular challenge to liberal democratic states, in which competing tensions exist among commitments to drug prohibition, public health, free market capitalism and the protection of religious freedom. In this dissertation, my overall goals are to demonstrate how the modern discursive construction of "drugs" is an obstacle for making well-informed policy decisions about ayahuasca, and to explain how humanity would be better served if ceremonial ayahuasca drinking were recognized as a valuable means of learning—a form of entheogenic education—rather than demonized and criminalized as illicit "drug" use.

I have several specific, subsidiary objectives for my investigations into ayahuasca, education and public policy (whose perhaps less than self-evident connections will become more apparent as my dissertation unfolds).<sup>5</sup> One objective is to further develop ideas I established in earlier work on the concept of entheogenic education (Tupper, 2002a; 2002b; 2003), which may be of interest to parents, educators, psychologists and others with an interest in cognitive development and

<sup>&</sup>lt;sup>5</sup> In the course of my studies, I also explored ancillary issues of traditional indigenous knowledge, cultural appropriation and intellectual property relating to ayahuasca's uptake beyond the Amazon. As these themes are not as directly relevant to my present discussion, I have attached a published article resulting from this work (Tupper, 2009) as an Appendix to this dissertation.

alternatives to the modern educational status quo. This aspect of my work investigates the possibility introduced above that entheogenic substance use, such as ceremonial ayahuasca drinking, has the potential to contribute to raising awareness of and creatively responding to important social and ecological issues that humans face in the 21<sup>st</sup> century.

Another objective is to provide some insight into the early modern foundations of modern drug policies, and how these historical roots support a contemporary international drug control regime that is ill-prepared to accommodate practices such as ceremonial ayahuasca drinking. This aspect of my work will be of relevance to policy makers and historians of drug policy, who grapple with the genesis and current effects of a questionably bivalent policy response to the enduring human proclivity to engage in psychoactive substance use. I hope to show that the inability of modern states to deal readily with ayahuasca is a symptom of structurally incoherent policy, whereby corporations are permitted to produce, promote and sell some substances, whereas producers, distributors and consumers of other substances continue to be criminalized despite increasingly pervasive and destructive externalities, such as underground illegal markets, swollen prison populations of non-violent offenders, and the spread of infectious diseases.

Finally, my work has the objective of offering insights into a unique component of Canadian legislation, Section 56 of the *Controlled Drugs and Substances Act*, and how Health Canada has interpreted it in such a way as to make a precedent-setting decision "in principle" to recommend giving Céu do Montreal authorization to import and drink ayahuasca in the form of Daime tea, in order to be able to freely practice their religion. It is my hope that Canadian scholars of public policy and human rights will find this aspect of my research relevant to their academic interests. All of these results of my research may also be of general interest to Canadians curious about drug policy, modern history and religious freedom. Furthermore, although I refer specifically to the Canadian context for much of my discussion, many of the issues addressed are common to other jurisdictions and thereby relevant to a broader global audience.

In addition to introducing and laying out the objectives of my work, chapter 1 continues with descriptions of the rising public interest in ayahuasca in Canada and the various ayahuasca drinking practices emerging here (and in other modern Western contexts), including

psychonautic, cross-cultural *vegetalismo* (defined below), and the Santo Daime religion. The chapter concludes with a summary of the English-language academic literature on ayahuasca. In the mid-20th century, as the brew gradually became the subject of academic inquiry, ayahuasca was studied almost exclusively by scholars working in the discipline of anthropology, whose research was mostly ethnographic studies of traditional indigenous cultural practices that involved drinking the brew. By the 1970s and 80s, greater scientific understanding of ayahuasca's botanical and biochemical properties was emerging. However, with the advent of ayahuasca's transnational expansion in the last few decades, and the uptake of its use in a variety of sociological contexts, research has begun to broaden into fields such as psychology, pharmacology, medicine, religious studies, and policy studies.

Chapter 2 outlines the theoretical foundations and specific methods for my analysis, explaining my choice of questions and means of answering them. Broadly, I draw on Michel Foucault's understandings of governmentality, knowledge and power (Foucault, 1980; 1991), along with Jürgen Habermas' investigations into the origins of the public sphere (1962/1989), and elements of what Immanuel Wallerstein calls "historical social science" (1991; 2004) as theoretical standpoints from which to examine and critique both the Canadian government's ayahuasca policy decision and the broader international drug control regime in which it is embedded. Specifically, I use the research methods of critical policy analysis and critical discourse analysis, approaches that involve looking carefully and methodically at the public and political discourses informing the policy decision-making process, and the implicit ideological and power structures embedded in them. The chapter concludes with some autobiographical details on my position as a researcher, and how this shapes the eclectic approach I have taken in studying the globalization of ayahuasca and its public policy and potential educational implications.

In chapter 3, I delve into the socio-historical context of the emergence of ayahuasca drinking as a perceived policy problem in Canada and other states over the past few decades. This involves tracing a coarse history of psychoactive substances to reveal elements of what has spawned a contingent modern ideological frame of the drug war paradigm and corresponding political response of the international drug control regime. I begin by exploring how a culturally and historically ubiquitous pre-modern behavioural phenomenon such as altering consciousness with

plant or derivative substances came to be perceived as anathema to the interests of modern nation state. In particular, I focus on the importance of early modern (16-18<sup>th</sup> century) Euroamerican intellectual, technological, social, economic and political factors in how the use and traffic of psychoactive substances were central to the emergence of the modern public sphere and global capitalist economic system (Habermas, 1962/1989). Notably, I consider how xanthinated beverages<sup>6</sup>—drinks made from coffee, tea and cacao—contributed to the scientific world-view, the commercial mass media and the emergence of liberalism and capitalism as political and economic philosophies. I trace how these early modern institutions continued to evolve in the 19<sup>th</sup> century, through projects of bourgeois moral entrepreneurship aimed at individual and collective improvement, and through the professionalization of vocations such as doctoring, school teaching and policing. Finally, I summarize the development of and lingering irremediable tensions in the 20<sup>th</sup> century's international drug control regime, to which most countries today are bound by international conventions.

Chapter 4 explores how the history of modern drug control has led to a hegemonic ideological frame—what I refer to as the drug war paradigm—and how this is embedded in the language we use to talk about psychoactive substances in contemporary public and political discourses. I provide a detailed analysis of the polysemic word "drug" and its multiple meanings, and contrast these with two other concepts, "non-drugs" and "medicines," which I argue jointly comprise an implicit stereotypology of psychoactive substances. This, in turn, leads to a consideration of the primary metaphors embedded in modern discourses about illegal psychoactive substances—"drugs as malevolent agents" and "drugs as pathogens"—whereby people who use illegal drugs are constructed as either bad and deserving punishment, or sick and requiring treatment. Finally, I trace a historical ontology of ayahuasca, showing how its traditional cultural constructions as a medicine, sacrament or plant teacher resist being mapped onto the dominant modern schema of stereotypes for psychoactive substances.

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<sup>&</sup>lt;sup>6</sup> The psychoactive chemicals caffeine (in the beans of *Coffea arabica* L. and the leaves of *Camellia sinensis* (L.) Kuntze, from which coffee and tea are made) and theobromine (in the beans of *Theobroma cacao* L., from which chocolate is made) are alkaloids in the chemical class of methylxanthines, hence the term *xanthinated beverages* to describe the now-familiar infused, mildly psycho-stimulant drinks that were introduced and rapidly popularized in early modern Europe.

The core of my policy analysis constitutes chapter 5, in which I scrutinize, analyze and critique the process and content of Health Canada's policy decision on Céu do Montreal's claim for legitimacy and legal protection of one particular form of contemporary ayahuasca drinking. Specifically, I analyze Health Canada documents to reveal how they construct the Santo Daime religious practice as a public policy problem, and what kinds of knowledge the government has drawn on to attempt to understand ayahuasca and its contemporary forms, uses, benefits and risks. As data, I have secured through an Access to Information request an assortment of internal government documents (such as reports, memorandums, e-mails and letters) generated by Health Canada from 2001 to 2008 pertaining to a request by Céu do Montreal for an exemption of the Controlled Drugs and Substances Act, which prohibits some of the psychoactive components of its religious sacrament, the Daime tea (i.e., ayahuasca). The chapter starts with a brief overview of human rights in the Canadian political context, and then discusses Section 56 of the 1996 Controlled Drugs and Substances Act, which gives discretionary power to the Minister of Health to allow distribution and/or possession of otherwise illegal substances—the specific legislative clause cited by leaders of Céu do Montreal in their request to exempt their religious sacrament and ceremonial practices from criminal prohibition. I then provide a short chronology of Health Canada's decision-making activity on the matter, from their receiving the request in 2001 to the issuance of a letter approving "in principle" the granting of a Section 56 exemption in the public interest in 2006. The detail of the policy analysis probes more deeply and critically into how Health Canada constructed ayahuasca as a policy problem, which policy stakeholders it did and did not consult on the matter, and what knowledge the government availed itself of in its decision making.

Chapter 6, my conclusion, grounds my research on ayahuasca in the field of education and extends the theoretical foundation for a proposed concept of entheogenic education (Tupper, 2002a; 2002b; 2003) by charting its public policy implications. To begin, I argue that the *prima facie* unintelligibility of the discursive construct of "plant teacher"—a linguistic trope found among diverse groups of traditional psychoactive plant users, and consistent with archaic Eurasian entheogenic and modern psychedelic substance use—for modern Western educators reflects deeply-rooted Eurocentric and scientistic assumptions about cosmology and epistemology. Indeed, a latent belief that indigenous knowledge, healing and spiritual practices

are benighted, inferior and wrong (Blaut, 1993; Smith, 1999) is evident not only in modern schooling, but also in contemporary drug policies. In response, I critique the modern institution of schooling for contributing to an entrenched condition of disenchantment among many young people today by denying or curtailing opportunities to cultivate wonder, awe and primary mystical experience, and implicitly fostering the broader neo-liberal agenda to promote the mindless consumption of mass entertainment and material goods.

As an alternative educational approach, I invoke the pedagogical ideas of Kieran Egan (1997; 2002; 2008)—based in turn on 20<sup>th</sup> century Russian psychologist Lev Vygotsky's notion of cognitive tools—as an example of a contemporary theory that can help make sense of the notions of plant teachers and entheogenic education as a possible means for re-enchantment during the life-course transition from youth to adulthood. I also touch on the importance of ritual to the concept and practice of entheogenic education, and how this may function as a form of protoharm reduction in avoiding potential risks associated with powerful psychoactive substances. By way of conclusion, I return to the argument that conceptualizing ayahuasca as a plant teacher—or at least as a traditional kind of cognitive tool that can facilitate intrinsically valuable learning experiences—is an important consideration, not only for crafting benign public policies in response to ayahuasca drinking, but also for potentially catalyzing a broader awareness of the ecological predicament humans face in the 21<sup>st</sup> century.

## 1.2 – Public Interest in Ayahuasca

Ayahuasca has crept into the modern public sphere at a time when digital information and communications technologies, especially the Internet, are rapidly and dramatically revolutionizing contemporary knowledge production and dissemination, and propelling all manner of social movements through new forms of autonomous media (Langlois & Dubois, 2005). Still, during this time of transition, familiar mass media forms of the recent past—books, magazines, radio, cinema, television—still have relevance for analysis of an emerging sociological trend like ayahuasca drinking. The work of Canadian scholars and popular media reports over the past few decades have contributed to English (and some French) language publicity about ayahuasca in Canada. For example, Wade Davis' account of his ethnobotanical work in the Amazon, *One River* (1996), which received a nomination for a Governor General's

Literary Award for non-fiction in 1997, culminates in a vivid narrative of one of the author's personal ayahuasca experiences. Likewise, Montreal-born anthropologist Jeremy Narby shares autobiographical insights about the Amazon rainforest, its plants and the limits of Western epistemology in The Cosmic Serpent: DNA and the Origins of Knowledge (1998, originally published in French in 1995). The Walrus, a Canadian literary magazine, featured a meditation on ayahuasca's uptake in modern culture titled "Plants with Soul" (Posner, 2006), in which the author recounts a personal experience with the brew. The Canadian Broadcasting Corporation's Radio One show, *Ideas*, in 2007 broadcasted (and subsequently podcasted) "In Search of the Divine Vegetal," a two-hour radio documentary on ayahuasca and its globalization (McKinnon & Cler-Cunningham, 2007). In 2009, a Canadian cable network channel devoted to religious and spiritual themes, Vision TV, contributed to the production of a video documentary on the crosscultural vegetalismo uses of ayahuasca in Canada (Meech, 2009), and CBC Television's The *Nature of Things* is producing an episode about ayahuasca and its therapeutic potential for public broadcast in 2011. However, more important than the quantity of ayahuasca reports and stories in public discourses is their quality, which in most cases is respectful and positive, at least compared to the commonly deprecatory representations of non-medical psychoactive substance use in mass news and entertainment media over the past century (in this respect, there is a growing divergence between emergent public discourses about ayahuasca, and dominant political ones).

The increase in media exposure on ayahuasca in Canada and elsewhere is a reasonable proxy indication that the brew is becoming less obscure, and thus more widely consumed, than it was a decade or so ago. Insofar as law enforcement activity is an indicator, ayahuasca drinking in Canada has not historically been a matter of any concern—in 2004, a senior RCMP official communicated to Health Canada that they had "not encountered or seized ayahuasca in Canada." However, the nature of ayahuasca drinking in Canada—the socio-demographics of the people attracted to it, the typically discreet ceremonial context of use, and its relative cost<sup>8</sup>—

<sup>&</sup>lt;sup>7</sup> Sunstrum, C. (2006, June 27). [E-mail to Derek Ogden, RCMP]. Health Canada Access to Information documents, p. 269.

<sup>&</sup>lt;sup>8</sup> Ayahuasca drinking in Canada and most other countries outside South America might be described as a predominantly bourgeois activity, as opportunities to participate in ceremonies are largely secured through word-of-mouth networking among middle-class aficionados and typically require a monetary donation or fee from participants. This is certainly the case with more overtly commodified cross-cultural vegetalismo ceremonies, which

makes it rather unlike most other kinds of illegal psychoactive substance use, so the lack of police awareness or interest does not say much about its prevalence. As government epidemiological surveys on psychoactive substance use do not, in any country as far as I am aware, include specific questions about ayahuasca, there are no reliable indicators on the scope of different kinds of drinking practices or drinking patterns (experimental, occasional or regular), let alone how regular drinking might affect outcomes in health, spiritual, social, cognitive, educational or other domains. In Canada, population statistics on psychoactive substance use are collected through Health Canada's Canadian Alcohol and Drug Use Monitoring Survey (CADUMS), and various provincial student drug use surveys. The CADUMS is a telephonebased rolling survey of Canadians over age 15, which collects population data about non-medical psychoactive substance use (other than tobacco) (Health Canada, 2010). In 2009, approximately 0.7% of CADUMS respondents reported having used "hallucinogens" in the past year, presumably the category an ayahuasca drinker who wanted to volunteer such information would choose for reporting it. If public awareness and interest in ayahuasca continues, and consumption goes up correspondingly, there may be an increased perceived need among government authorities to collect statistics on ayahuasca drinking. Important considerations for future attempts to quantify ayahuasca drinking populations—leaving aside the question of whether this might be desirable or necessary—include whether or what proportion of ayahuasca drinkers conceive of themselves as illegal "hallucinogen" (or even "drug") users, and even if they did, whether they would be likely to disclose this information through a random household telephone survey.

The various public discourse vectors for the expansion of knowledge about ayahuasca since the early 1990s have been established in Canada as part of a broader transnational trend involving drinking of the brew. However, so far only the Brazilian Santo Daime religion has become a salient policy issue for the Canadian federal government. Other ayahuasca practices not

can cost upward of several hundred dollars per event. The Brazilian ayahuasca religions, including the Santo Daime, officially eschew the sale of ayahuasca, although regular members are obliged to pay tithes and visitors are usually asked to make monetary donations when they attend rituals (Schmidt, 2007, p. 66).

<sup>&</sup>lt;sup>9</sup> Brazil would be the most likely country to collect statistics on ayahuasca drinking, as it is home to several autochthonous ayahuasca religions and traditional indigenous practices, and has dealt with ayahuasca as a policy issue since the 1980s. In 2010, the World Health Organization communicated by letter to researchers at the University of Heidelberg that it has made no investigations in recent years specifically relating to ayahuasca, or *B. caapi* or *P. viridis* (B. Labate, personal communication, July 2010).

explicitly on the government's agenda include: other Brazilian ayahuasca religious practices (Labate & MacRae, 2010), such as the *Centro Espírita Beneficente União do Vegetal* (Benevolent Spiritist Centre Union of the Plants, or UDV) and Barquinha new religious movements; psychonautic (i.e., individual drinking without explicit adherence to traditional or formalized ritual protocols); cross-cultural *vegetalismo* (i.e., Peruvian *mestizo* or similar traditional folk cultural practices conducted for healing or self-actualization); and hybrids among these, including underground therapeutic uses following a more clinical psychotherapeutic model. As far as I am aware, the other Brazilian ayahuasca religions do not have a presence in Canada, so I will not discuss them much, other than briefly in my ayahuasca literature review later in this chapter, and in a summary of a legal case involving the UDV in the United States in chapter 5. However, I will describe more fully the psychonautic, cross-cultural *vegetalismo* and Santo Daime types of ayahuasca drinking to provide some context about their similarities and differences.

#### 1.3 – Psychonautic Drinking

One of the primary reasons why ayahuasca has become a contemporary policy issue in Canada is that *N*,*N*-dimethyltryptamine (DMT), harmalol, and harmaline—three alkaloids found in the brew—are listed as controlled substances in the 1996 *Controlled Drugs and Substances Act*. However, in Canada plants that contain these chemicals, such as *P. viridis* and *B. caapi*, are not explicitly controlled by the legislation. Thus, unlike plants that contain other controlled substances—such as *Cannabis* species (marijuana), *Papaver somniferum* L. (opium poppy) or *Erythroxylum coca* Lam.(coca leaf)—ayahuasca's constituent plants are not illegal. While possessing or selling them is not a criminal act, possessing or distributing a preparation made from them may be interpreted as such and could lead to arrest and prosecution. This legal distinction allows for the unrestricted sale of dried plant materials, which happens over-the-counter in larger Canadian cities and online with delivery by mail or courier. Commercial

<sup>&</sup>lt;sup>10</sup> Harmine and tetrahydroharmine, psychoactive analogues of harmalol and harmaline, are present in significantly greater quantities in ayahuasca, yet the former are not scheduled in Canada. As none of the harmala alkaloids are scheduled in the international drug control conventions, in most other jurisdictions DMT's presence in the brew is the singular legal issue with respect to ayahuasca distribution and use. Since DMT is endogenous in human and other mammalian brains (Barker, Monti & Christian, 1981), and has also been identified in numerous common plants around the world (Ott, 1994), wry drug policy critics have contended that, technically, everyone is always in immediate possession of a powerfully psychoactive controlled substance (Shulgin & Shulgin, 1997).

websites specializing in entheobotanical products offer *P. viridis* and *B. caapi* for sale over the Internet, along with other "ayahuasca analogue" plants and a variety of other psychoactive flora. Harketing in the global cybersphere, such companies operate as any aspiring entrepreneurial enterprise ought to: attempting to expand their customer base, competing for market share with product quality, advertising, sponsorships, and offering perquisites such as bulk purchase discounts or free shipping. Following the innovation of "smart shops" in the Netherlands, entheobotanical shops in cities such as Vancouver and Toronto also provide overthe-counter access to a range of such products. In some cases, plant samples are labeled with cautions that they are not intended for human consumption, although some distributors also provide harm reduction information through point-of-sale pamphlets or business websites.

People who purchase *B. caapi* and *P. viridis* (or analogue plants) over-the-counter or online are presumably home-brewing and consuming ayahuasca preparations in contexts that might be best described as "psychonautic." It may be surmised that youth are attracted to these kinds of relatively unstructured uses of ayahuasca, judging by reports of trends of not-ritual use of other types of psychoactive plants—such as *Datura stramonium* L. (also known as Jimson weed or thorn apple), or *Salvia divinorum* Epling & Játiva (Lange, Reed, Ketchie Croff & Clapp, 2008; Reynaud-Maurupt, Cadet-Taïrou & Zoll, 2009; Wiebe, Sigurdson & Katz, 2008). However, those tempted to drink ayahuasca casually or for fun may be deterred by the unpredictable and sometimes less-than-pleasant nature of the experience, including the common side effects of nausea and vomiting. Likewise, as the importance of religiously-structured or shamanically-guided practices is often emphasized in contemporary (especially online) public discourses about ayahuasca, many curious potential imbibers may opt to seek out more traditional ayahuasca drinking opportunities. The costs of purchasing and preparing home-brewed ayahuasca may also be prohibitive, relative to the ease and cheapness of superficially similar substances easily available through underground markets, such as psilocybin mushrooms. For these reasons,

<sup>&</sup>lt;sup>11</sup> Ott (1994) has identified a number of botanical sources for dimethyltryptamine and harmala alkaloids, which can be combined to brew a decoction that produces psychoactive effects similar, if not identical, to ayahuasca. Among the more common plants offered online (and their respective psychoactive components) are *Mimosa hostilis* Benth. (DMT), *Diplopterys cabrerana* (Cuatrec.) B. Gates (DMT, and 5-MeO-DMT), *Peganum harmala* L. (harmala alkaloids).

<sup>&</sup>lt;sup>12</sup> Ott credits German author Ernst Jünger for coining the term "psychonaut" to describe "a voyager employing entheogenic drugs as his vehicle" (Ott, 1994, p. 98) for exploring mind, consciousness, or, somewhat more contentiously, spiritual realms.

psychonautic uses of home-brewed ayahuasca may be limited in comparison with other drinking trends in which more traditional (i.e., ceremonial) contexts and structured settings are provided.

#### 1.4 - Cross-cultural Vegetalismo

In contrast to psychonautic, or relatively unstructured, ingestion of ayahuasca or analogues, a few distinct kinds of ayahuasca-drinking practices are becoming characteristically Westernized. Across Canada, cross-cultural *vegetalismo* ceremonies are becoming a focal practice for loose networks and communities of ayahuasca drinkers in provinces such as Alberta, British Columbia, Manitoba, Nova Scotia, Ontario and Quebec. To understand the specifics of these kinds of practices requires a brief overview of their South American cultural roots. Vegetalismo is a Peruvian Spanish term denoting the folk healing traditions of *mestizo curanderos*, or healers of mixed indigenous and non-indigenous ancestry who use ayahuasca and other "master" plants for diagnosis and treatment of illnesses (Beyer, 2009; Dobkin de Rios, 1972; Luna, 1986). Known as ayahuasqueros, such folk healers undergo a rigorous process of initiation and training, requiring adherence to strict dietary and sexual abstinence protocols, and sometimes prolonged isolation in the jungle. Forest spirits and the sorcery of rival shamans are etiological forces in the Amazonian mestizo belief system (Beyer, 2009; Whitehead & Wright, 2004), 13 which can be identified and countered by a skilled *ayahuasquero* who drinks ayahuasca in the presence of the patient (who may or may not drink the brew as well) to determine an appropriate course of treatment. Such information is communicated by familiar spirits of ayahuasca and other master plants, which are invoked through the chanting of *icaros*, the melodies whistled or sung to shape or modify the visions and teachings of the plants in ceremonies, accompanied by the rhythms of the schacapa, a rattle made of leaves from bushes of the *Pariana* genus and used to spiritually cleanse the patient (Luna, 1986, p. 145). The colonial conditions in which *vegetalismo* and equivalent folk healing traditions in the Amazon emerged have also provided fertile ground for some inevitable Christian missionary influences on these practices (Luna, 1986).

Cross-cultural *vegetalismo* refers to ayahuasca ceremonies based, to varying degrees, on *vegetalismo* or equivalent traditions from other regions of the Amazon, but conducted primarily for (and increasingly by) non-Amazonians. Urban centres in the region are presently witnessing a

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<sup>&</sup>lt;sup>13</sup> The cross-cultural transfer of beliefs about sorcery to modern non-indigenous or Euroamerican apprentice *ayahuasqueros* has been discussed by Fotiou (2010).

boom in what has been pejoratively characterized as "ayahuasca tourism" (Dobkin de Rios, 1994; see also Davidov, 2010; Holman, 2011; Razam, 2009), but cross-cultural vegetalismo ceremonies are also increasingly common outside the Amazon (Labate, 2004). Canadians and other foreigners regularly invite indigenous or mestizo Amazonian ayahuasqueros to their home countries to conduct ceremonies for people in the circles and networks of the sponsor's friends and acquaintances (Tupper, 2009a—see Appendix). Some individuals are undertaking apprenticeships in the *vegetalismo* tradition to become neo-shamanic practitioners of ayahuasca healing, in a manner similar to how yoga, Buddhist monastic, ayurvedic, or Chinese medicine practices have been taken up by modern Western disciples exogenous to the respective cultures and traditions of origin. Practitioners of this sort have been dubbed neo-ayahuasqueros (Labate, 2004; see also Luna, 2003). Accompanying such cross-cultural transfer of practices are attendant hybridities, such as the incorporation of therapeutic modalities from other cultural traditions (e.g., reiki or qigong energy work). Non-traditional musical instruments—such as the frame drum, the flute, the guitar, the *kalimba* (a type of African thumb piano) or the *hang* (a modern Swiss percussion instrument, a kind of inverted steel-pan drum)—are sometimes used to produce innovative soundscapes that complement the more traditional *icaros* performed in ceremonies. Other self-styled ceremonial leaders will play recorded music (South American indigenous or sometimes other "world" or electronic music genres) on stereos for less traditional phonic ambience. Discourses of cross-cultural vegetalismo also tend to adopt the traditional cultural construction of ayahuasca as a medicine, rather than overtly as a sacrament, as in the Brazilian ayahuasca churches.

Ayahuasca ceremonies in cross-cultural *vegetalismo* style typically take place at night, and are led by an experienced *ayahuasquero*, often with support from one or more apprentices. In Canadian contexts, such events range in size from 10 to 25 participants, and are conducted in large rooms of private homes, cabins, retreat centres, yoga studios, or in Westernized yurts (large circular lattice-framed huts). Participants bring mats and blankets (and buckets, in case of a need to purge), and arrange themselves against the wall facing towards the middle, so they may sit or lie down as they desire. The lead *ayahuasquero*, also positioned as part of the circle, invites participants one-by-one to come up and receive a small glass (50-100 millilitres) of ayahuasca, and after everyone has drunk the lights are turned off. After 20-30 minutes, or as the effects of

the brew begin to take effect, the *ayahuasquero* begins chanting the first of a succession of icaros that will continue, sometimes with short breaks in between, for the duration of the ceremony. Some participants, especially those coming with specific requests for healing, may be called up to sit in front of the *ayahuasquero* to receive a *soplada*, or an individual chant accompanied by blowing of perfume or *mapacho* (Amazonian tobacco) smoke. While not overtly religious events, cross-cultural *vegetalismo* ceremonies typically have the solemnity of a serious spiritual practice.

#### 1.5 – Santo Daime

The Santo Daime's religious use of ayahuasca is the other predominant ritual structure through which the consumption of the brew happens in Canada (mostly in the provinces Quebec and Ontario), and how ayahuasca has manifested as a policy problem for the federal government in the early 21<sup>st</sup> century. The Santo Daime is a new religious movement that is the oldest of several Brazilian syncretistic ayahuasca drinking practices which combine elements of Christianity, Kardecism, Afro-Brazilian spiritualism, and traditional indigenous worldviews (Labate & MacRae, 2010). The Santo Daime was founded in the 1930s in the Amazonian state of Acre, where an Afro-Brazilian rubber tapper, Raimundo Irineu Serra (or Mestre Irineu), encountered ayahuasca through contact with indigenous peoples he worked alongside in the rainforest (Meyer, 2003; see also Schmidt, 2007, chap. 3). The Santo Daime remained a small isolated religious community through the mid-20<sup>th</sup> century, during which time the church solidified its core spiritual beliefs and ceremonial practices, including the various rituals for the preparation and use of the sacrament (which they call "Daime tea" and the codification of collections of hymns through which its doctrines are expressed (MacRae, 2004).

After Irineu's death in 1971, the Santo Daime split into several different ecclesiastical lines, including the *Centro Eclético da Fluente Luz Universal Raimundo Irineu Serra* (CEFLURIS), or

<sup>&</sup>lt;sup>14</sup> The word "'Daime' is derived from the [Portuguese] verb 'to give' (*dar*), and remits to the notion of grace received (health, healing, knowledge, revelation, peace, love, etc.) from a divinity or spiritual entity" (Labate, MacRae & Goulart, 2010, pp. 2-3). The English word "tea" is a direct translation of the Portuguese *chá*, itself deriving from the Cantonese word *ch'a* (Weinberg & Bealer, 2002). Technically, the term "tea" is a misnomer in reference to the Santo Daime's *B. caapi* and *P. viridis* preparation, as it is a decoction (i.e., a brew) rather than an infusion of the plants.

the Centre for the Eclectic Flow of the Divine Light. <sup>15</sup> The doctrine of CEFLURIS follows Mestre Irineu's original teachings, augmented by those of Sebastião Mota de Melo (or Padrinho Sebastião), a charismatic medium who founded the Amazonian spiritual community Colônia Cinco-Mil in the 1970s, and its successor, Céu do Mapiá, in the 1980s (Polari de Alverga, 1999). CEFLURIS doctrine esteems the Daime tea as a spiritual force for cleansing, healing and learning, and the sacrament is generally served only to those who participate in their *trabalhos* (literally, "works," or ceremonies). The CEFLURIS calendar of *hinários* ("hymnals," referring both to the ritual and to sets of *hinos*, or hymns, sung during it) specifies nineteen special ceremonies conducted on fixed days throughout the year (Schmidt, 2007, p. 249); in addition, there are regular bi-monthly *concentração* ("concentration") rituals for meditation, introspection and reflection, as well as an assortment of other *trabalhos* specific to healing, celebration of lifecycle events, and the making of the Daime tea (see Schmidt, 2007, pp. 146-153).

Typically, *hinários* take place at night in a large, brightly-lit gathering space with a large hexagonally-arranged set of lines on the floor (after the six-pointed Star of David) to demarcate the ritual space. At the centre of this, in the middle of the room, sits an altar on which are placed a *caravaca* (a two-horizontal-armed cross), candles, flowers and photographs of the late Mestre Irineu and Padrinho Sebastião (Schmidt, 2007, p. 156). Participants are situated in proximity to the altar table according to church hierarchy, with the ceremony leaders and musicians near the centre, ritual supervisors distributed at key places among the congregation, and guests towards the outer edges of the room. Notably, all male and female participants are required to be physically separated, with each gender group occupying their respective half of the ritual space. Full members of the church (known as *fardados*) wear uniforms of clean white shirts, neckties, and dress pants or skirts (called *farda branca*, or "white uniforms"), and visitors or guests must also wear white.

Along the side of the room is another altar, at which women and men form two separate lines to receive the Daime sacrament near the beginning and at other important points of the ritual, and

<sup>&</sup>lt;sup>15</sup> For a helpful visual chart of the history of the main lineages of the Santo Daime in Brazil, see "The Genealogy of the Santo Daime Doctrine" (The Children of Juramidam, 2010). While "there are sharp differences among [the various Santo Daime lineages], and sometimes disputes and conflicts as well" (Soares, 2010, p. 70), these difference are beyond the scope of my inquiry, which will be focused on CEFLURIS, the largest and most international branch of the religion.

then return to their allocated spots in the room. The typical quantity served has been estimated by one ethnographer to be approximately 80 millilitres of liquid—although this amount may vary depending on experience, with newcomers receiving larger amounts than experienced drinkers, "as they are believed to need more *daime* in order for it to have effect" (Schmidt, 2007, p. 155). After the serving of the sacrament, it takes from 20-40 minutes for the visionary effects of the brew, the *miração* in Santo Daime's terminology, to begin to manifest. The word *miração* is derived from the Portuguese stems *mirar* ("look at" or "contemplate") and *ação* ("action"), and thus connotes the active, engaged and participatory nature of the experience (Polari de Alverga, 1996, para. 3). As Schmidt relates, "[the *miração*] is commonly described as a vivid and intense experience, full of colour, light and beauty, a 'place' where the normal sense of time and space is dissolved" (2007, p. 167); yet, she also notes that "a *miração* is often a positive experience but it can be frightening as well" (2007, p. 167). <sup>16</sup> However, experienced church members

describe [miraçãos] as holistic experiences where the daime, sometimes very dramatically, demonstrates the linkage between everything in the world. The daime dissolves the individualized and conditioned self of everyday life. In audible, visionary, and sensory manner, the daime convinces people about their intimate connection to other beings, whether spirits, other humans, animals or plants. People who have had such experiences say that they completely transformed the way they relate to life, and especially to nature. They describe these [miração] experiences as important for their eagerness and desire to protect the natural environment. (Schmidt, 2007, p. 170)

The *miração* lasts for 3-4 hours, or even longer if additional Daime tea is drunk during the ceremony, which may last as long as 12 hours in some cases. For the duration, the congregation will sit or stand, or often dance for lengthy intervals, while at the same time singing *hinos*. The dance (or *bailado*) is a basic two-step shuffle on-the-spot, back and forth to rhythm of the *hino*, in which all participants move together in simply choreographed concert.<sup>17</sup>

As with all Santo Daime lineages, stemming from their rural Amazonian oral traditions, CEFLURIS church doctrine is encoded in its *hinos*. These simple, melodic songs are sung in unison by church members while under the effects of the sacrament, and are central to all Santo Daime rituals. As Shanon puts it, "the hymns constitute the very skeleton defining all that is

<sup>16</sup> For a comprehensive account of the general phenomenology of the ayahuasca experience, see Shanon (2002).

There are numerous You Tube videos available showing segments of Santo Daime rituals, many of which feature the congregation singing *hinos* and participating in *bailados*.

experienced" (2002, p. 310) within a Santo Daime ceremony. Like the chants in indigenous or mestizo folk healing, the hinos of the Santo Daime shape or modify the miração generated by the ayahuasca and provide an anchor when its effects are strong or disorienting. For example, CEFLURIS leader Alex Polari de Alverga relates of one of his early experiences at a Saint John's Day ritual (June 23<sup>rd</sup>, around winter solstice in the summer hemisphere, and one of the regular observances in the Santo Daime calendar): "The hymns kept guiding my understanding and saved me during the hardest moments" (Polari de Alverga, 1999, p. 58). Also similar to indigenous ayahuasca traditions, for Santo Daime members the composition of songs is not a conscious process; hinos are said to be "received" from spiritual forces made manifest through drinking the brew (Labate & Pacheco, 2010, p. 35; Shanon, 2002, p. 105-6). However, such channeling is believed to happen only for meritorious church members—as Schmidt reports: "the ability to receive hymns depends on a person's sensitiveness and it is talked about as being a form of mediumship" (2007, p. 165). Although not everyone may receive a hino, all participants in most Santo Daime rituals are encouraged and expected to join in the singing, which is accompanied by assorted instruments. These include guitars, accordions, flutes and percussion instruments, the most important of which is the *maracá*, a shaker with a handle that is played by church leaders and has special symbolic importance in the Santo Daime tradition (Labate & Pacheco, 2010, p. 32).

The lyrics of the Santo Daime *hinos* carry the central messages of the church's teachings. As Labate and Pacheco relate, "the hymns are the principal doctrinal instrument of Santo Daime, functioning as a true 'semantic structuring corpus' of the religious practice" (2010, p. 31). The most important *hinário* (or set of hymns) is the original series of 132 received by Mestre Irineu himself, called *O Cruzeiro*; in addition to these, there are other key *hinários* received by other important early church leaders, and now, among the various lineages of Santo Daime, the total numbers in the thousands (Labate & Pacheco, 2010, p. 31). The themes covered in the *hinos* range from the moral to the cosmological, and often include reminders to practice love, balance, ethical fortitude and respect for nature. Although originally an oral form, passed from elders to

<sup>&</sup>lt;sup>18</sup> Apparently Santo Daime founder Mestre Irineu himself, in his early encounters with the Daime spirit, the Queen of the Forest, professed an inability to sing and balked at the suggestion he should do so. However, the spirit's gentle insistence ulitimately compelled him to open his mouth, out of which came the first Daime hymn (Fernandes qtd. in Labate & Pacheco, 2010, p. 28).

youth and memorized by years of accumulated practice, the *hinos* of the Santo Daime began to written in codified form when, in the 1970s, "Cefluris [sic] introduced the practice of printing the hymns in small books . . . illustrated and spiral bound" (Labate & Pacheco, 2010, p. 29). One of the reasons for this may have been CEFLURIS' openness to newcomers, such as disaffected young backpackers from the southeastern cities such as Rio de Janeiro and Sao Paulo, seeking spiritual guidance or healing at a time when Brazil was under a period of military dictatorship (Polari de Alverga, 1999).

By the 1980s, these influxes to the CEFLURIS congregation included visitors from outside Brazil, whose enthusiasm for the Daime sacrament moved them to take it, and the accompanying rituals and doctrines they had learned, home to share with curious confidants and loved ones. One such person was Jessica Williams Rochester, a Canadian who after an extended visit to Brazil returned home and established Céu do Montreal in May 1996. How the Santo Daime congregation Rochester founded in Montreal sought to protect the human rights of its members to freely practice their religion in Canada—and how the Canadian government negotiated the difficulties it faced in considering the Santo Daime's request for legitimacy—is the focus of my policy analysis in chapter 5. However, to conclude this chapter, I will review the academic literature on ayahuasca available in the English language pertaining to its contemporary modern uses outside traditional indigenous contexts.

## 1.6 - Review of the Ayahuasca Literature

Until relatively recently, ayahuasca remained obscure as a topic of academic inquiry, at least outside narrow circles of botany and anthropology. However, a growing academic literature—including disciplines such ethnobotany, pharmacology, human physiology, psychology, health, spirituality, and globalization studies—is increasing the Western scientific knowledge base on various aspects of the brew. This section attempts to summarize important aspects of this literature, although I want to acknowledge that any attempt to represent "knowledge" about ayahuasca in an academic text does a disservice to the fundamentally experiential nature of what is important about the brew. That being said, other aspects of the topic are beyond the scope of the review. For example, the past and present ayahuasca drinking practices among the indigenous peoples of the Amazon—for various healing, spiritual and other cultural purposes—

have been the subject of numerous ethnographic studies; however, a comprehensive account of these is beyond the scope of this review, although I will start with a brief overview of the cosmological importance of ayahuasca for some Amazonian peoples, and also make reference later to a few ethnographic works that have influenced ayahuasca's popular uptake outside South America or add some important clarity in other ways. Likewise, ayahuasca is a growing topic of academic interest in many countries in South America and Europe, and numerous books and articles have been published in Spanish, Portuguese, French, German and Dutch; unfortunately, my poor reading comprehension in languages other than English prevents me from including them here. And ayahuasca's increased popularity has resulted in a growing number of feature stories about it in newspapers and magazines and on radio, television and documentary films (some Canadian examples of which were identified earlier in this chapter); however, in the interest of brevity and keeping academically focused, these are not part of this literature review. Unpublished Ph.D. dissertations and Master's theses, as well as studies investigating ayahuasca's psychoactive constituents (i.e., harmala alkaloids and dimethyltryptamine) individually on humans or animals are also not part of this literature review. My research interests are the policy implications of and responses to the uptake of ayahuasca drinking in the context of Canada and other modern liberal-democratic states, so I cover the academic publications that most directly relate to this. Although I have tried to be as thorough as possible in covering the most important works in the field of ayahuasca studies, I make no claims to exhaustive coverage. Finally, as B. caapi brews have many names in different Amazonian indigenous languages (Luna, 1986), some of the literature also commonly refers to yagé, a word from the Tukano indigenous peoples of the Colombian Amazon (Reichel-Dolmatoff, 1975), which here may be understood to be synonymous with ayahuasca.

This literature review is divided into several themes within the natural, health and social sciences literature. I begin with an overview of the ethnobotany of ayahuasca and then review its physiological and psychological effects. Next, I go over research into ayahuasca within the disciplines of contemporary health and medicine, and then its uses in spiritual practices, both general and specifically (i.e., the larger Brazilian churches, the Santo Daime and the União do Vegetal). Finally, I cover the transnational expansion of ayahuasca drinking in the late 20<sup>th</sup> century, reviewing some of the material that has contributed to its uptake in contemporary non-

indigenous contexts. The separation between some of these categories may at times seem artificial, as a number of publications may fall into two or more categories. For example, most of the clinical research on the physiology and psychology of ayahuasca has been done on subjects who are members of Brazilian churches such as the UDV or Santo Daime. Some readers may have valid reasons for disagreeing with how I have chosen to group them. However, I have done my best to categorize in ways that seem best suited for accuracy, simplicity and the context of an academic literature review.

#### **Amazonian Cosmologies**

For a variety of Amazonian indigenous peoples, *B. caapi* and decoctions of it play a central role in the constitution of their traditional cosmovisions, or worldviews. Of course, the cultural diversity of the Amazon—with hundreds of distinct language groups, each unique in its own ways—makes it problematic to assert broad generalizations about a coherent Amazonian "indigenous" worldview. Furthermore, after more than five centuries of colonialist interactions with Euroamericans—from conquistadors, rubber barons and missionaries to anthropologists, film-makers and tourists—beliefs and traditions have changed and evolved over time (Gow, 2001). Nevertheless, ethnographers have compiled an impressive knowledge base of how the forest ecology, including plants, animals, and geographic features, imbues the cultural cosmology of Amazonian peoples with meaning (Roe, 1982). Limitations of space prevent doing proper justice to the topic, but the following brief points illustrate the importance of ayahuasca in Amazonian cosmologies.

An anthropologist who worked with the Cashinahua of Northwestern Brazil reports that for her informants "ayahuasca is a means of transport and of transformation, a means of reconnecting with invisible layers of the cosmos" (Lagrou, 2000, p. 32). Among Tukanoan peoples of southeastern Colombia, a central creation story recounts how the first woman, impregnated by Father Sun, gave birth to a child whose umbilical cord became the first *yagé* (i.e., *B. caapi*) vine—a gift to the people by Father Sun to teach them valuable things (Reichel-Dolmatoff, 1975, p. 134-136). Canelos-Quicha peoples of eastern Ecuador and Peru, near the headwater tributaries of the Amazon, regard kinship ties as extending as importantly to deceased as living relatives, and esteem ayahuasca as a means to connect with ancestor spirits, as well as the spirits of

powerful forest animals (e.g., jaguars and anacondas), water animals (especially river dolphins), birds, insects, trees and plants (Whitten, 1976). The visions that are experienced while under the effects of ayahuasca are, for Amazonian indigenous peoples, not a hallucination, but rather a glimpse into another reality or parallel world, inhabited by spirits with whom can interact and learn (Harner, 1973a). The kinds of learnings ayahuasca is believed to provide include empirical knowledge, divinatory powers, spiritual understanding, and aesthetic experiences, such as those Dobkin de Rios (1984, p. 175-76) identifies in a list of the more common reasons for traditional uses of the brew:

- 1. To learn the whereabouts of enemies and to discover their plans
- 2. Before going off to war, to hunt or on other expeditions
- 3. As an aid in acquiring a special protective spirit
- 4. In association with tribal religious beliefs
- 5. To give answers to emissaries of other groups
- 6. To tell if strangers were coming
- 7. To tell if wives were unfaithful
- 8. To prophesy the future clearly
- 9. For pleasurable or aphrodisiacal effects
- 10. For use in determining the cause and effecting a cure of disease

The aesthetic importance of ayahuasca is particularly evident in the songs and artifacts of the Shipibo-Conibo people of the Ucayali River region of Peru, whose experience with the brew inspires sophisticated word-play and metaphor in their healing songs and chants, and intricate geometric lattice designs in woven fabrics and pottery decorations (Rittner, 2007).

#### **Ethnobotany & Pharmacology**

Ayahuasca was first brought to the attention of modern Western science through the botanical work of Richard Spruce, who gave the vine its Latin name *Banisteria caapi* (Schultes, 1968), although the genus was subsequently renamed as *Banisteriopsis* for taxonomical accuracy. Spruce was also among the first non-indigenous people to report on the ritual consumption of a brew prepared from the vine, based on experiences working with indigenous peoples he

encountered during botanical expeditions in the Western Amazon and eastern Andes from 1849 to 1864. At least two researchers working independently in the 1920s determined that *B. caapi* contained the alkaloid harmine, a beta-carboline molecule which had already been isolated from the seeds of *Peganum harmala* (Syrian rue) in the 1840s, although it took until the end of the 1930s before it was conclusively demonstrated that they were identical (Ott, 1996). Other analogues of harmine (e.g., tetrahydroharmine, and to a lesser extent harmaline) were also found in *B. caapi*. In the late 1950s, Udenfriend, Witkop, Redfield, & Weissbach (1958) reported that the harmala alkaloids were short-acting reversible inhibitors of monoamine oxidase (MAO), an enzyme found in various parts of the human body, including the gut and the brain. MAO in humans has two types, MAO-A and MAO-B, both of which are catalysts in the deamination of some biogenic amine neurotransmitters, such as dopamine and norepinephrine; however, MAO-A is the type that is involved in the metabolization of tryptamine molecules, such as serotonin (5-hydroxytryptamine) and DMT (dimethytryptamine).

Dimethyltryptamine had been synthesized in 1931, but its psychoactive properties were not realized until the mid-1950s when it was isolated from entheogenic snuffs made from the seeds of *Anadenanthera peregrina* Speg., and researchers experimented with ingesting it (Ott, 1996). Experiments by Szara et al. determined that DMT was a powerful psychedelic when taken parenterally (e.g., injected intermuscularly or intravenously, or smoked), but was inactive when taken orally (Shulgin, 1976; Szara, 1956). DMT's importance as a component of the ayahuasca brew was speculated on in the late 1960s, but not conclusively demonstrated until experiments in the early 1980s showed the relationship between MAO inhibition and the potentiation of orallyingested DMT, although bioassays done by psychonauts in the late 1970s verified the psychoactivity of harmala alkaloid and DMT combinations (Ott, 1996). DMT has recently been shown to be the only known endogenous ligand of the sigma-1 receptor, a transmembrane protein widely distributed in the central nervous system (Fontanilla et al., 2009), although how important this is to the pharmacokinetic action and psychoactivity of ayahuasca remains to be seen.

Richard Evans Schultes, whose work helped to establish the discipline of ethnopharmacology, did considerable ethnobotanical research on ayahuasca while studying rubber trees for the U.S.

government during and immediately after the 1939-1945 war (Davis, 1996). Schultes (1957) published research results on the botany of malpighiaceous "narcotics" from his fieldwork in the Amazon. In this paper, Schultes summarizes the extant literature on *Malpighiaceae* and the various misidentifications and confusions resulting from both the myriad names used in different indigenous languages and the sometimes sloppy fieldwork of other ethnobotanists. He concludes that the decoctions *caapi* (Brazil and Colombia), *yagé* (Colombia), and *ayahuasca* (Ecuador, Peru and Bolivia) are all made from identical or closely similar malpighiaceous flora, and corrects erroneous reports of other species being the primary constituents of these. Some of the plants used as admixtures are reported, but not in great detail. In this paper, Schultes also does not address with any specificity the uses, effects, phytochemistry or cultural importance of ayahuasca preparations. Schultes did go on to publish more popular accounts of ayahuasca and other entheogenic plant preparations (Schultes & Hofmann, 1992; Schultes & Raffauf, 2004), but these are beyond the scope of the present literature review.

Homer Pinkley, a student of Schultes, in the late 1960s reported on the botanical sources of some ayahuasca admixtures in much greater detail, likewise noting the confusions in the literature about names (Pinkley, 1969). Pinkley identifies *Banisteriopsis rusbyana* (Nied.) Morton (now taxonomically reclassified as *Diplopterys cabrerana*) and *P. viridis* as two important plants added to preparations such as *caapi*, *yagé*, and *ayahuasca*. He also notes that solanaceous plants from genera such as *Nicotiana*, *Brugmansia* and *Brunfelsia* (e.g., tobacco and angel's trumpet) are also common admixtures.

The botanical and chemical constituents of ayahuasca were studied experimentally by Rivier and Lindgren (1972), who assayed samples of *B. caapi*, *P. viridis*, and ayahuasca brews collected with the Sharanahua and Culina indigenous peoples of the Peruvian Amazon. Their research provides a comprehensive analysis of the phytochemistry of these plants and decoctions thereof, as well as an account of the experiential effects they had using it in ceremony with their informants. The researchers used gas chromatography/mass spectrometry (GC/MS) to determine that harmala alkaloids and *N,N*-dimethyltryptamine (DMT) are ayahuasca's primary psychoactive constituents. It was further determined that the average alkaloid content of their ayahuasca samples contained an average of 15 mg of harmine, 5 mg of tetrahydroharmine, and

12.5 mg of DMT per 100 ml. At this time, others had hypothesized that the pharmacokinetic interaction between the harmala and tryptamine alkaloids was an important factor in ayahuasca's pharmacology (Agurell, Holmstedt & Lindgren, 1968; der Mardersian, Pinkley & Dobbins, 1968), but no experimental investigations had yet demonstrated it.

McKenna, Towers & Abbott (1984) published research done at the University of British Columbia that conclusively showed that harmala alkaloids and DMT interacted to produce ayahuasca's unique pharmacological effects. Using samples of both plant materials (*B. caapi* and *P. viridis*) and ayahuasca collected in Peru, the researchers employed thin-layer chromatography, high pressure liquid chromatography and GC/MS to determine the alkaloid profile and the approximate proportion of respective alkaloids in each sample. The average alkaloid content of a 100 ml sample of ayahuasca in this study was 467 mg of harmine, 160 mg of tetrahydroharmine, and 60 mg of DMT. These overall alkaloid quantity results are much higher than the earlier work of Rivier and Lindgren (1972), which is attributed to differing methods of preparation by the *ayahuasqueros* from whom samples were acquired.

McKenna, Towers & Abbott (1984) also experimentally investigated *in vitro* MAO inhibition of ayahuasca, to determine whether the MAO inhibitory activity of the harmala alkaloids might in fact potentiate the oral activity of DMT. The researchers used a rat liver preparation to assay both ayahuasca samples and an "ayahuasca analogue" with beta-carboline alkaloid proportions equivalent to those found in the ayahuasca samples. The results showed that ayahuasca is an effective MAO inhibitor, giving considerable support to the hypothesis that ayahuasca's remarkable psychoactive effects were due to a unique pharmacological synergy between the harmala alkaloids and DMT. As the authors note, "these observations constitute the first empirical demonstration of the effect of ayahuasca on MAO and provide evidence for the hypothesis that the hallucinogenic properties of ayahuasca are due to its inactivation of visceral MAO and consequent oral potentiation of the DMT in the preparation" (p. 218). However, as Ott (1996) observes, only through human psychonautic bioassays could this be proved conclusively.

Jonathan Ott provides a relatively exhaustive overview of ayahuasca pharmacognosy in a book devoted to ayahuasca and its analogues (Ott, 1994) and as a chapter in his more comprehensive

book *Pharmacotheon* (Ott, 1996). In these texts, Ott provides a detailed history of the ethnobotanical history of ayahuasca and its preparations, a catalogue of plants (both traditional and non-traditional) containing harmala MAO-inhibitor and tryptamine alkaloids, and a number of psychonautic "trip reports," the results of bioassays conducted by the author and others. He reports on the first bioassayed confirmation of the harmala/tryptamine pharmacokinetic synergy hypothesis by Bigwood in 1978, and subsequent confirmations with a variety of ayahuasca analogue combinations. Noting with concern that ayahuasca tourism endangers the traditions indigenous to the Amazon (as mushroom tourism did in Mexico in the 1960s and 70s), Ott proposes that providing information about alternative source plants to make ayahuasca analogues will give modern Westerners easily available options for entheogenic experiences. However, such analogue preparations are not necessarily identical in either pharmacokinetics or subjective effects, due to differing alkaloid profiles in the alternative plant sources. Furthermore, Ott does not comment on the possible importance of the ritual structure found in most ayahuasca drinking traditions as a means of mitigating potential adverse outcomes and maximizing potential benefits.

McKenna, Luna and Towers (1995) provide a summary of the various admixture plants in ayahuasca and their ethnopharmacological uses. Having searched the *Biological Abstracts* and the American Chemical Society databases over a twenty-five year period (from 1970 to 1995) to compile phytochemical information on these plants, they summarized the medical, botanical and pharmacological aspects of ayahuasca, as well as the traditions of *mestizo* folk medicine and the roles that other plants play in conjunction with ayahuasca. This work emphasizes the important cultural context of the *mestizo* belief system in which ayahuasca is traditionally used, providing details about the strict diets and behavioural protocols that *ayahuasquero* (i.e., ayahuasca healer) initiates are required to follow. In addition to detailed ethnobotanical information about the plants used in preparing the ayahuasca brew, they also compiled a table of over fifty different species of plants (from thirty botanical families) that have been identified as admixtures.

Callaway (2005a) recently undertook a survey of the alkaloid profiles of nearly thirty samples of ayahuasca from various sources, including brews prepared by the União do Vegetal, the Santo Daime, the Barquinha, and indigenous Shuar healers. The samples were collected in the field,

frozen, and later analyzed using high pressure liquid chromatography. As with previous studies, the quantity of various alkaloids varied considerably among samples, including two which contained no DMT at all. The samples from the UDV had the lowest overall alkaloid concentrations, and the Shuar preparation had much higher concentration of harmala alkaloids and lower concentrations of DMT than the others. Callaway suggests that the range in standard dosages of these different groups may reflect the differing potencies in their brews. One sample was left at room temperature for close to three months and periodically analyzed for changes. No significant changes in alkaloid profile or composition were measured, but the pH initially dropped and then gradually neutralized over time as the sample began to ferment.

## **Human Physiology**

Scientific studies of the human physiological effects of ayahuasca began even more recently than those looking into its ethnobotany and phytochemistry. Although some research on harmala alkaloids and DMT individually was done as far back as the 1950s (Szara, 1956; Udenfriend et al., 1958), the effects of these in combination in the human body could not have been conceived of as a research topic until the unique pharmacological action of ayahuasca was hypothesized in the late 1960s. Human physiological research on ayahuasca was also impeded by a general antipathy towards using humans as subjects in psychedelic drug research, a state of affairs that stopped it completely for a couple of decades, and still today makes it comparatively, although not insurmountably, difficult to undertake (Multidisciplinary Association for Psychedelic Studies, n.d.; Sessa, 2005; Strassman, 1991). Nevertheless, in the past few decades, a few research groups have investigated the acute and longer-term physiological effects of ayahuasca, and in this section I review their contributions to the academic literature.

The "Hoasca Project" was an interdisciplinary research team that investigated the physical and psychological effects of ayahuasca among long-time members of the Brazilian UDV church in 1993. In an initial publication from this study, Callaway, Airaksinen, McKenna, Brito, and Grob (1994) found increased platelet serotonin uptake sites in ayahuasca drinkers. The researchers selected thirteen healthy male members of the UDV church between 28 and 48 years old who had drunk the brew at least twice a month for ten years or more, as well as ten control subjects who had never drunk ayahuasca (all from Manaus, Brazil). Blood samples were taken from

subjects (with no ayahuasca consumed within the previous week) and analyzed to measure the binding in platelet cells of [³H]citalopram, a ligand specific to the serotonin transporter. The results showed significantly higher numbers of serotonin transporter binding sites in the platelets of ayahuasca drinkers compared to the controls, or an "upregulation" of serotonin uptake sites. The authors suggest that this effect may have an analogous process in neuronal tissue, with similar upregulation of serotonin transporter sites in the brain, and thus a decreased concentration of serotonin in synaptic cleft or an increase in production and release of serotonin. The authors emphasize that the subjects' good mental health suggests the change in serotonin uptake sites should not be interpreted as indicating pathology.

The Hoasca Project also included a measurement of the quantitation of harmala alkaloids and DMT in blood plasma after the consumption of ayahuasca (Callaway et al., 1996). For this research, fifteen UDV members provided blood samples at timed intervals after ingesting a measured dose (2 ml/kg body weight) of ayahuasca. The blood plasma was then analyzed using high pressure liquid chromatography to determine levels of harmala alkaloids and gas chromatography with nitrogen-phosphorous detection to determine levels of DMT. The peak plasma concentrations of the various alkaloids in a representative subject were: harmine, 92.3 ng/mL; harmaline, less than 1.0 ng/ml; tetrahydroharmine, 82.2 ng/ml; and DMT, 12.4 ng/ml (although there was considerable variability in results among the different subjects). The peak plasma concentrations of DMT in the ayahuasca drinkers in this study showed a similar range as those for subjects in a different study given intravenous DMT (Strassman & Qualls, 1994), although the ayahuasca drinkers' onset of peak DMT was later and lasted longer, due to the MAO inhibitory effects of harmala alkaloids. The study demonstrated both the range of quantities of harmala alkaloids and DMT in the blood of ayahuasca drinkers and the reliability of newly developed analytical methods to determine them.

The pharmacokinetics of ayahuasca, and their correlation with pharmacodynamic effects, was another aspect of the Hoasca Project research (Callaway et al., 1999). Pharmacokinetics is the sub-discipline of pharmacology concerned with the determination of the fate of substances administered to living organisms. For the Hoasca Project, the researchers monitored the pharmacokinetic effects of a precise dose of ayahuasca on fourteen healthy male volunteers over

the duration of the experience (approximately 4 hours). Each subject was given 2 ml/kg of the brew (3.4 mg/kg harmine, 2.14 mg/kg tetrahydroharmine, and 0.48 mg/kg DMT) and then monitored for eight hours, with blood samples and autonomic measurements taken every twenty minutes. Researchers also administered the Hallucinogen Rating Scale—an instrument developed to measure effects of DMT (Strassman, Qualls, Uhlenhuth, & Kellner, 1994)—before, during, and after the experience. Average peak plasma concentrations of harmine (92 ng/ml) occurred within 40 minutes of ingestion, whereas the peak for DMT (16 ng/ml) was at 120 minutes and for tetrahydroharmine (84 ng/ml), 180 minutes. The maximum intensity of the experience reported by volunteers generally coincided with peak plasma levels of DMT. Neuroendocrine responses showed increased levels of growth hormone (peaking at 90 minutes— 9.44 ng/ml average), cortisol (peaking at 60 minutes—133 ng/ml average) and prolactin (peaking at 120 minutes—34 ng/ml average), a physiologic response consistent with other serotonergic drugs, such as prescription MAO inhibitors. Other marked changes included dilation of the pupils (an average diametric increase of 1.2 mm), increase in respiration rate (from 18 to 21.5 breaths per minute), and a slight increase in body temperature. The average heart rates showed an initial increase, but by the two-hour mark were well below basal levels, and then increased back to normal by four hours. Blood pressures also increased mildly in the first half-hour, but then slowly dropped to below basal level by four hours. Overall, pharmacodynamic responses corresponded with the subjective accounts of subjects, who reported a deeply meditative mind state for the latter part of the experience.

Callaway (2005b) did further analysis of the Hoasca Project data on pharmacokinetics, identifying two subsets of subjects according to the rate at which they metabolized harmine. This was done in light of new scientific understanding of an enzyme (CYP2D6) involved in the metabolism of harmala alkaloids. Callaway found that among the 14 ayahuasca volunteers, half could be characterized as "fast" metabolizers of harmine and the other half as "slow" metabolizers. He proposes that these differences may be a result of phenotypic variability in enzymatic expression of CYP2D6 and that some of the physical effects of an individual's use of ayahuasca may be correlated to this variability. However, the pharmacokinetics of both DMT and tetrahydroharmine did not display such variation, which he suggests makes it unlikely that this enzyme is involved in their metabolism.

In the early 2000s, another team of researchers investigated ayahuasca's effects on humans in Barcelona, Spain, in the form of an initial pilot study and a subsequent expanded double-blind clinical trial. The "brew" in this study, originally obtained in standard liquid form from the Santo Daime CEFLURIS branch, was a lyophilizate (or freeze-dried powder) put into gelatin capsules. This allowed the researchers to better control for alkaloid concentrations and uniformity of dosage. The pilot clinical trial was on six healthy male volunteers who had prior experience with ayahuasca, but no formal affiliation with any ayahuasca church. Its purpose was to establish the safety of administering ayahuasca to experienced subjects and to determine the time course and intensity of effects (Riba, Rodriguez-Fornells, Urbano et al., 2001). Done in a single-blind manner, volunteers received three increasing doses over four sessions in a research laboratory and were monitored for cardiovascular, pharmacokinetic, and psychological effects. The researchers found moderate (but not statistically significant) cardiovascular effects, and stimulatory and psychedelic effects.

Follow-up research in Barcelona with other volunteers, some of whom were ayahuasca-naïve, involved administration of freeze-dried ayahuasca capsules in a double-blind method. In this larger study, the same physical effects were recorded as for the pilot, but electroencephalography (EEG) responses, alkaloid plasma levels, and excreted metabolites were also measured (Riba & Barbanoj, 2005). EEG results showed statistically significant decreases in theta, delta and beta-1 brain wave activity, and an increase in the alpha/delta-theta ratio. These measures were dose dependent (i.e., they were more intense at higher doses) and they coincided with the time course of the subjective effects and the DMT plasma levels (Riba et al., 2002). The plasma levels of DMT, harmaline and tetrahydroharmine were recorded in all subjects. At the higher dose (0.85 mg/kg DMT; 0.09 mg/kg harmaline and 1.16 mg/kg tetrahydroharmine), maximum plasma concentrations of DMT were 17.44 ng/ml at approximately 90 minutes after ingestion, while maximum plasma concentrations of harmaline (4.32 ng/ml) and tetrahydroharmine (39.40 ng/ml) were occurred at 120 and 180 minutes respectively, and were lower than expected (Riba et al., 2003). Excreted monoamine metabolites were also measured to assess the MAO inhibitory effects of ayahuasca *in vivo*. However, the results did not indicate a clear profile on MAO

inhibition, which the researchers suggested may be because of relatively low amounts of harmala alkaloids in the dose.

Further studies in Barcelona have looked at the neural correlates of ayahuasca's effects and the effects of daytime ayahuasca consumption on sleep parameters. To assess the possible neural mechanisms of ayahuasca's action on the human brain, the research team used single photon emission tomography (or SPECT) to measure regional cerebral blood flow approximately 1.5 hours after administration of ayahuasca lyophilizate (Riba, et al, 2006). The results showed increased blood flow in paralimbic and frontal brain regions, specifically the anterior insula and the anterior cingulate/frontomedial cortex of the right hemisphere, as well as the amygdala/parahippocampal gyrus in the left hemisphere—parts of the brain that are central to somatic awareness, subjective feeling states, and emotional arousal. To study how ayahuasca might affect the regulation of the sleep/wake cycle, researchers used polysomnography, EEG spectral analysis and subjective sleep quality measures to study subjects who randomly received ayahuasca, dextroamphetamine or a placebo (Barbanoj et al., 2008) Results showed that ayahuasca did not disrupt sleep initiation or maintenance, or reduce perceived sleep quality, but that it did inhibit rapid eye movement (REM) sleep (i.e., dreaming) by decreasing its duration, both in absolute values and as a percentage of total sleep time, and delaying its onset.

Ott (1999) reported on the results of psychonautic bioassays on combinations of freebase DMT and the hydrochloride salt of harmine, to systematically ascertain *in vivo* the hypothesis that ayahuasca's psychoactivity is a result of the combined effects of these alkaloids. Based on both his own and several others' experiences (a total of about 70 experiments) with various measured combinations of these substances, Ott verified that DMT/harmine combinations do indeed produce psychoactive effects similar to ayahuasca's. Although these experiments leave open the question of how ayahuasca's effects are moderated by both its other constitutive alkaloids (e.g., tetrahydroharmine) and the ritual structures into which its use is often incorporated, Ott's work definitively verifies the hypothesis that orally-ingested DMT in plants such as *P. viridis* and *Diplopterys cabrerana* are activated by the harmala alkaloids in the *B. caapi* vine.

The question of physiological harms or risk of harm with respect to ayahuasca is complicated by its uncertain legal status and general association with psychoactive drugs demonized through the regime of global drug prohibition. Ayahuasca drinking is acknowledged in traditional indigenous and *mestizo* contexts to be potentially risky, although these risks are typically attributed more to supernatural or spiritual causes than to physiological ones (Luna, 1986). It is important to emphasize that behavioural protocols such as restricted diets and sexual abstinence are traditionally believed necessary to effectively deploy ayahuasca as a shamanic tool, and that risks are attendant to its consumption without strict adherence to these. Whether such cultural codes of practice have any foundation in a latent knowledge or awareness of potential physiological risks related to ayahuasca drinking is unclear. However, it is interesting to note that dietary restrictions (for foods containing the amino acid tyramine) are also prescribed for some pharmaceutical MAO inhibitor-type medications, which if not followed may result in hypertensive crisis. However, no such contraindications related to tyramine-containing foods have ever been clinically demonstrated for ayahuasca.

Callaway and Grob (1998) reported that potential adverse reactions may result from ayahuasca drinking by individuals who are also taking selective serotonin reuptake inhibitor (SSRI) medications. They noted that fatalities from combining prescription pharmaceutical MAO type-A inhibitors with SSRIs have been reported in the medical literature, and that a similar risk may exist with respect to ayahuasca. The specific adverse reaction, termed "serotonin syndrome," is the result of excessive serotonin levels in the central nervous system and includes symptoms such as nausea, vomiting, convulsions, loss of consciousness, and, in extreme cases, death. Serotonin syndrome is a consequence of MAOIs blocking the metabolism of serotonin and SSRIs blocking its reuptake into presynaptic nerve terminals. Callaway and Grob (1998) described a case of an incident of apparent serotonin syndrome in a 36 year-old male taking fluoxetine (Prozac), who experienced serotonin syndrome-like symptoms for several hours after ingesting ayahuasca. The authors caution that with increased ayahuasca drinking in contemporary modern contexts, safety cautions about such potential adverse reactions are important.

Reports in the medical literature of deaths from ayahuasca are nearly non-existent, the few exceptions being cases erroneously linking ayahuasca to adverse outcomes whose cause is not ayahuasca *per se*. For example, Warren (2004) described a case report of a 71-year-old indigenous Canadian (Wikwemikong) woman who died after drinking a combination of tobacco preparations and a decoction of what was called "ayahuasca." In both Warren's (2004) publication and more broadly in the Canadian popular media (Dubé, 2003a; Erskine, 2003), "ayahuasca" was explicitly identified in connection with the fatality. However, although harmine and harmaline were found in the decedent's heart blood (no DMT is mentioned), nicotine levels were almost 100 times above those of a habitual smoker (1900 ng/ml vs. 20 ng/ml) (Warren, 2004). A coroner's investigation ruled the cause of death was "acute nicotine overdose," which speaks to the potential lethal toxicity of orally ingested nicotine (Schep, Slaughter & Beasley, 2009). I discuss the Wikwemikong woman's nicotine death and its erroneous attribution to ayahuasca by the media in greater detail in chapter 5, as it may have impacted the progress of Céu do Montreal's Section 56 exemption application.

In a similar case, Sklerov et al. (2005) described a case report of a 25-year-old male in the United States who died after drinking an "ayahuasca preparation." An uniformed reader might reasonably infer a causal connection to this death and ayahuasca, yet the details of the report reveal grossly disproportional levels of 5-MeO-DMT, a tryptamine which is not found in standard B. caapi and P. viridis decoction. A group of scholars, many of whom were cited in the Sklerov et al. article, wrote a letter to the editor of the *Journal of Analytical Toxicology* to demand clarity on this case, arguing that ayahuasca was unfairly maligned in the case report, as only a large quantity of synthetic 5-MeO-DMT ingested in addition to a more traditional ayahuasca brew could have produced the levels of 5-MeO-DMT found in the decedent's heart blood (Callaway et al., 2006).

The research to date on the physiological effects of ayahuasca shows that it is of relatively low toxicity and generally safe for healthy subjects, a conclusion Health Canada reached in its own investigations, as I report in chapter 5. However, ayahuasca's increasing consumption in contemporary modern contexts warrants much more research on the potential risks or benefits of drinking by people with chronic medical conditions (e.g., cardiovascular or gastrointestinal

problems, mental illnesses, or diabetes), as well as interactions with pharmaceutical medications. Furthermore, a variety of medical imaging techniques—such as functional Magnetic Resonance Imaging (fMRI) or single photon emission computerized tomography (SPECT)—hold promise for future understandings through research into how ayahuasca works in the human brain.

# **Psychology**

The psychological effects of ayahuasca are arguably its most fascinating properties, typically leaving naïve or novice drinkers in awe, and inspiring experienced drinkers to revere the clarity of mind it brings. Yet, such psychological outcomes have only begun to be studied through experimental scientific research, most of which, to date, has involved members of the Brazilian syncretistic ayahuasca churches (i.e., the UDV and Santo Daime). This section covers the literature pertaining to the psychology of the ayahuasca experience.

Psychological effects of ayahuasca drinking were part of the Hoasca Project (discussed in the preceding section) and were reported by Grob et al. (1996). Fifteen (15) male long-term ayahuasca drinkers in the UDV church were compared to a control group of men (from the same Brazilian region) who had never drunk ayahuasca, matched along parameters of age, ethnicity, marital status and levels of education. The experimental group ranged from 26 to 48 years of age (mean of 37) and had been members of the UDV for between 10 and 18 years (mean of 14). The research tools included: structured psychiatric diagnostic interviews in the form of Composite International Diagnostic Interview (CIDI), a standardized interview designed for epidemiological studies of mental disorders, but also utilized for clinical and research purposes, and applicable in a variety of cultures and settings; personality testing in the form of a Tridimensional Personality Questionnaire (TPQ), a self-administered true/false questionnaire that measures the higher order personality dimensions of novelty seeking, harm avoidance, and reward dependence; and neuropsychological testing in the form of the WHO-UCLA Auditory Verbal Learning Test, a cross-culturally sensitive list-learning test in which subjects are asked to recall in various capacities words that are read to them from a list of common categories such as parts of the body, tools, and household objects. The experimental subjects also filled out immediately after an ayahuasca session a questionnaire based on the Hallucinogen Rating Scale (HRS), an instrument originally developed for measuring the effects of injected synthetic DMT (Strassman

et al., 1994), and subsequently shown to be reliable for other hallucinogenic drug effects (Riba, Rodriguez-Fornells, Strassman & Barbanoj, 2001). Finally, the experimental subjects also underwent semi-structured interviews to elicit their life stories, including details about their lives before drinking ayahuasca with the UDV, how they first became involved with the church, and how their lives had developed since regularly participating in its rituals.

The results of the Hoasca Project's personality testing showed significant differences between the UDV members and their matched controls. UDV members were found to be "more reflective, rigid, loyal, stoic, slow-tempered, frugal, orderly, and persistent and also scor[ed] higher on measures of social desirability than controls" (Grob, 1999, p. 239). Within the harm avoidance domain, ayahuasca drinkers were also determined in to be "more confident, relaxed, optimistic, carefree, uninhibited, outgoing, and energetic" (p. 239). The neurological testing between the two groups showed "significantly higher scores on measures of concentration and short-term memory" (p. 239). The Hallucinogen Rating Scale showed scores of the intensity of the ayahuasca experience were correlated to approximately 0.1 to 0.2 mg/kg of intravenous DMT. However, the subjects noted that the dose of 2 ml/kg of ayahuasca—a lower-than-average dose to reduce the chances of vomiting—was less than what they usually consumed in a regular session.

The life stories of the UDV members revealed that most of them had had a variety of pervasive dysfunctional behaviours prior to their entry into the church community. Seventy three percent had moderate to severe alcohol dependence before their first ayahuasca experience, and fifty three percent were regular tobacco smokers. All reported having discontinued any non-medical psychoactive substance use outside of the ritualized ayahuasca sessions. Their description of their lives before the UDV included terms such as impulsive, disrespectful, angry, aggressive, oppositional, rebellious, irresponsible, alienated, and unsuccessful (Grob et al., 1996). Subjects uniformly reported a transformational experience with their first ayahuasca session, a time which they saw as a critical turning point in their lives. Most reported a sense that their lives had been on a destructive track, and that without a radical change in lifestyle they would end up unhappy, ruined, or dead. However, after becoming regular participants in UDV ayahuasca rituals, the subjects reported "sustained improvement in memory and concentration, persistent positive

mood states, fulfillment in day-to-day interactions, and a sense of purpose, meaning, and coherence to their lives" (Grob, 1999, p. 241). However, the researchers noted that the specific ritual context in which ayahuasca is consumed by UDV members makes it difficult to ascertain how much of the improvement reported by the subjects can be attributed to the brew itself.

Halpern, Sherwood, Passie, Blackwell & Ruttenber (2008) undertook a psychiatric evaluation of American members of an Oregon-based chapter of the Santo Daime church, and found similar positive experiences among regular drinkers of the brew in a religious context outside Brazil. The researchers collected physical health data from 32 subjects, as well as demographic information, history of drug use and data from a battery of psychological measures. They found that the Santo Daime members in their sample had overall good physical health and reported increased mental clarity, improved relationships and a more positive outlook on life. The subjects also reported reduced or eliminated problematic substance use, including recovery from past alcohol and other drug dependence. Although limited by self-selection of subjects, lack of a comparison group, and an absence of blinded administration of measures, the study of the effects of Santo Daime membership and regular Daime tea drinking the United States corroborated similar evidence of psychological benefits from participation in ayahuasca rituals in Brazil.

Most of what little research has been done on the psychological effects of ayahuasca has been done on adults; yet, both the UDV and the Santo Daime allow adolescents and sometimes children to drink the sacrament in their rituals. A team of researchers recently studied some of the psychological effects of regular ayahuasca drinking in an adolescent population, using both psychiatric and qualitative measures (Doering-Silveira, Grob et al., 2005). From this study, Da Silveira et al. (2005) reported on the psychiatric health of 40 adolescents (aged 15-19 years) who had drunk ayahuasca in UDV rituals at least 24 times in the previous two years, as well as a comparison group who were ayahuasca-naïve. Using a number of psychiatric screening instruments, the researchers found that the psychological health profiles of both ayahuasca-drinkers and controls were similar, although members of the ayahuasca group were observed to have slightly fewer anxiety symptoms and attention deficit disorders and less body image dysmorphia. However, the small sample size may have precluded any such differences being of statistical significance. Doering-Silveira, Grob, et al. (2005) studied the rates of other kinds of

psychoactive substance use in this group of UDV adolescents and in the controls and found no statistically significant differences between the two groups with respect to most kinds of substance use, except alcohol, which was used much less frequently both in the preceding year by UDV teens (46.3%) compared to the control teens (74.4%) and in the preceding month (32.5% UDV vs. 65.1% controls).

Doering-Silveira, Lopez et al. (2005) reported on the results of cognitive assessments of the UDV adolescent population and controls, finding little difference between them. The neuropsychological instruments included assessments of attention, concentration, intelligence, language, memory, executive functioning, and processing speed. Noting the concerns of psychoactive substance use among teens, the researchers "found no evidence of injurious effects of ayahuasca on adolescents who participated with their families in ceremonial rituals" (p. 127). Similarly, Dobkin de Rios, Grob, Lopez et al. (2005) reported on the qualitative results of interviews with 28 adolescent ayahuasca drinkers (a subset of the aforementioned subjects). The results showed few significant differences between ayahuasca drinkers and controls, although the UDV group were found to be somewhat more responsible, respectful and concerned about others' welfare. The authors concluded that ayahuasca-drinking "teens appear to be healthy, thoughtful, considerate, and bonded to their families and religious peers" (p. 139). An important proviso for all the UDV adolescent research, as with the research done previously with UDV adults in the Hoasca Project, is that the study designs do not allow for discernment between psychological effects from ayahuasca per se and effects of membership in a supportive religious group.

Barbosa, Giglio and Dalgalarrando (2005) studied the short-term psychological after-effects and altered states of consciousness induced by ayahuasca among first-time drinkers in urban Brazilian contexts. The researchers assessed 28 subjects (a convenience sample, one of the limitations of the research) prior to drinking ayahuasca for the first time in either a Santo Daime or UDV ceremony, using both structured and qualitative semi-structured instruments to measure psychiatric health, prior religious beliefs, expectancies and motivations, the phenomenology of the altered state of consciousness induced by ayahuasca. Salient altered state of consciousness experiences included visual phenomena, numinousness, peacefulness, and insights (with one

distressing reaction). Within two weeks after the first experience, significant behavioural changes reported by subjects included serenity, assertiveness, and vivacity/joy. The researchers also reported a significant reduction in the intensity of minor psychiatric symptoms among some subjects. Although preliminary, the research is an important step in exploring the effects of ayahuasca (as well as factors such as set and setting) on first-time drinkers.

Cognitive psychologist Benny Shanon has done arguably the most comprehensive theoretical academic work to date on the psychological effects of ayahuasca, reporting the effects of brew on informants from a variety of traditional and modern contexts, including considerable firsthand experience. Shanon (1998) outlined the framework for his project, suggesting that the traditional academic disciplines of natural sciences (e.g., ethnobotany, pharmacology and biochemistry) and social sciences such as anthropology are unable to elucidate the most interesting aspects of the ayahuasca experience. He argues that cognitive psychology is the most appropriate discipline for ayahuasca research, as it is the extraordinary phenomenology of the ayahuasca experience that makes it so special. Shanon distinguishes cognitive psychology from other more dominant approaches to cognitive science, which regard the human mind as a kind of sophisticated computer and thus attempt to determine its underlying computational structures and mechanisms. In contrast, his approach—what he terms a "radical phenomenological" one involves discerning cognitive natural domains, of which the ayahuasca experience is one, and thus "the charting of mental geography and the marking of regularities in it" (Shanon, 1998). Noting that many of the specifics of the visions and experiences reported by both indigenous and non-indigenous drinkers are identical, Shanon argues that ayahuasca is a tool with which to investigate possible universals of the human mind.

In undertaking a comparative investigation of ayahuasca visions, Shanon (1998) drew on data from his more than 60 personal experiences with ayahuasca, from interviews with over 150 other people (both indigenous and non-indigenous) about their experiences, and from accounts of ayahuasca experiences gleaned from the anthropological literature. Using a detailed coding system, Shanon identifies cross-personal (and cross-cultural) commonalities in different subjects' experiences, categorizing content into domains of nature, culture, fantasy and supernatural. More specifically, he lists plants and animals, landscapes, architecture, magical creatures, royal

figures, and divine beings as among the more common items in ayahuasca visions, regardless of cultural or ethnic background. Themes that are common in ayahuasca experiences include individual or personal (i.e., autobiographical content), humanistic (e.g., morality or death), species-specific (i.e., relating to *Homo sapiens*), supra-human (i.e., astral), and creationist (i.e., pertaining to mythic origins or evolution). Shanon argues that the items he identifies as common to ayahuasca experiences represent a type of cognitive universal, albeit different ones from those generally found in psychology or cognitive science literature.

In another paper, Shanon (2001) takes up the cognitive constituent of temporality with respect to the ayahuasca experience. He identifies six parameters of ordinary human experience of temporality: passage (time flows); measure (rate flows); order (before/after); directionality (past/future); temporal metric and relations (determination of temporal location and intervals); and frames of reference (temporal distance, usually perceived as "now"). With these foundational parameters of ordinary perception of temporality as a frame, Shanon contrasts two types of non-ordinary temporal experience that can be generated in ayahuasca (and more generally other psychedelic) experiences—modified temporality and non-temporality. The former includes experiences of time seeming to move slower or faster, of confusion of past and future, and of shifts in temporal frames of reference (i.e., perceived time travel). Non-temporality, on the other hand, includes experiences of being outside time and/or experiencing eternity. Shanon notes that some features of these non-ordinary temporal experiences lend themselves to Platonic-type interpretations, of perceiving abstract eternals as concrete.

Shanon's work is comprehensively summarized in a book, *The Antipodes of the Mind* (2002), covering the results of his first ten years of cognitive psychology research on ayahuasca. In it, he details the variety of experiences in the phenomenology of the ayahuasca experience (including the topics of visions and temporality discussed above, as well as other such as consciousness and light) and some of the theoretical issues raised by his research. The latter includes contextual considerations such as ritual and cultural variables, the dynamics of the experience (e.g., fear, energy, transcendence), and a general theoretical framework for his observations. Shanon's articulation of a "schooling" metaphor of ayahuasca drinking merits particular mention, as it resonates with my proposed concept of entheogenic education. Shanon contends that regular

ayahuasca drinking may be best compared to a course of training rather than seen a series of one-off experiences (2002, p. 302). This schooling metaphor fits with both the work of Luna (1984a) and with my own work on the notion of entheogenic education (Tupper, 2002a; 2002b; 2003), which is developed further in chapter 6.

It is difficult to disagree with Shanon's proposition that what is most interesting about ayahuasca are the extraordinary psychological effects it produces and what this can reveal about the human mind and consciousness. Although Shanon has done a remarkable job of exploring ayahuasca from his disciplinary perspective of cognitive psychology, a comprehensive scientific understanding of the effects of the brew warrants much further investigation from a variety of other sub-disciplinary perspectives (e.g., biological psychology, social psychology, developmental psychology).

#### Health/Medicine

Among the most important reasons for ayahuasca drinking identified in the anthropological literature is its therapeutic capacity as both a diagnostic tool and a medicine, valued traditionally for both determining the cause of and effecting a cure for disease (Dobkin de Rios, 1984). In this sub-section, I briefly review some of the literature that relates to ayahuasca's uses in folk healing and potential for contemporary Western medicine. Although I have generally excluded ethnographic literature on Amazonian indigenous peoples from this review, this section includes some discussion of traditional practices, as understanding of ayahuasca's therapeutic applications originates with the knowledge of Amazonian indigenous peoples. A bit more detail about ritual as a ubiquitous component of ayahuasca healing practices will be discussed in chapter 6.

Dobkin de Rios (1972; 1973) reported on her work with *mestizo* healers working in urban contexts in the impoverished Belén district of Iquitos, Peru. The purpose of her research project was to gather data on beliefs about illness and the role that ayahuasca plays in the folk medicine of the region. She interviewed a number of *ayahuasqueros* and their patients, observed ayahuasca healing sessions, and drank ayahuasca herself, an experience that "provided an excellent entry into the world of informants' personal experience, since they were more apt to discuss their own visions with another person who had participated in their ritual" (Dobkin de

Rios, 1973, p. 72). Dobkin de Rios details how ayahuasca drinking in this particular cultural context is related to endemic poverty and its associated social ills, along with the magical beliefs of both the healers and patients who seek their treatments. She notes that ayahuasca is most commonly used for culturally specific illnesses that would be considered psychosomatic in modern Western medicine, and are often causally attributed to witchcraft or sorcery.

Luna (1984a; 1984b; 1986) gives a comprehensive overview of the cultural practices and underlying belief system of *vegetalismo*, the Peruvian Amazonian folk-medicine tradition of using special "master" plants for healing. Based on data accumulated over five periods of fieldwork with several *ayahuasqueros*, Luna's research provides insight into how ayahuasca is used to diagnose and treat illnesses among the *mestizo* populations of Peru. He outlines the process of initiation and training to become an *ayahuasquero*, which requires following strict dietary and sexual abstinences and sometimes prolonged isolation in the forest. Aspects of the supernatural elements of *vegetalismo* cosmology are described, such as the various forest spirits that can influence human affairs. Luna relates that his informants attribute particular therapeutic importance to *icaros*, the melodies whistled or sung by the *curandero* while under the influence of ayahuasca and believed to shape or modify the visions and to allow communication with plant spirits. *Icaros* are believed to be learned or channeled through the spirits of the plants ingested during periods of dieting, and adeptness in delivering them while under the influence of ayahuasca is regarded as the *sine qua non* of practicing *vegetalismo*.

Andritzky (1989) summarizes the role of ayahuasca in Amazonian healing rituals and speculates on their sociopsychotherapeutic functions. Drawing primarily on his field work with an *ayahuasquero* from the Piro tribe in eastern Peru, as well as other ethnographic reports, Andritzky details how ayahuasca is prepared and used in ceremonial contexts to induce trance states by specialist healers who treat a variety of illnesses. He emphasizes that ayahuasca, as it is used in traditional ceremonials contexts, "provides the entire community access to transcendental experiences and thereby has integrative and cohesive functions for the society" (p. 87), although he also notes that often it is only the healer—not the patient—who drinks ayahuasca. He also observes that ayahuasca for the Piro people (as with other indigenous Amazonian societies) is only one of scores of medicinal plants regularly used for shamanic healing. Taking up the

explanatory frameworks of modern psychology (especially transpersonal psychology) and aspects of parapsychology, Andritzky contextualizes the ritual use of ayahuasca in post-colonial Amazonian societies as a functionally adaptive means of responding to social change and dislocation.

McKenna (2004) discusses the challenges of investigating the therapeutic potential of ayahuasca through clinical studies. After reviewing ayahuasca's pharmacology, effects and historical and contemporary uses, McKenna offers an overview of the results of recent biomedical research to provide a rationale for its continuation and expansion. He identifies several types of illnesses—such as substance dependence, serotonergic deficits and immune system modulation—that, based on current knowledge from what little clinical research has been done, ayahuasca promises to be useful in treating. However, he notes that a number of legal and regulatory obstacles (especially in the United States) currently impede moving forward on further research and outlines what steps investigators would need to take in order to do so.

The potential for ayahuasca as an adjunct in treating substance dependence or addiction has been discussed by Mabit (Mabit & Sieber, 2006; Mabit, 1996; Mabit, 2007), who founded the Takiwasi treatment centre in Tarapoto, Peru in 1992 (Takiwasi, 2007). Mabit claims considerable success at treating coca paste and other types of substance dependence. This kind of therapy is consistent with the use of other types of psychedelics in treating alcoholism or other addictions reported in past medical research (Dyck, 2006; Grinspoon & Bakalar, 1979; Halpern, 1996; Sessa, 2005), accords with the hypothesis that shamanic practices of consciousness alteration generally might be beneficial as components of programs treating substance dependence (Winkelman, 2001), and is also corroborated by the findings from the Hoasca Project that some UDV members, after beginning regular use of ayahuasca in religious contexts, stopped drinking alcohol. However, Mabit's work at Takiwasi has not been rigorously evaluated or published in peer-reviewed journals, and so does not have much academic weight in establishing the legitimacy of such novel treatments. Yet, as mentioned above, McKenna (2004) identifies addiction treatment as one of the promising avenues for future clinical ayahuasca research.

Dobkin de Rios, Grob and Baker (2005) put forth a model of "redemption" as an explanation for how substances such as ayahuasca might be useful in the treatment of addiction. Redemption, as they use the term, refers to both secular and spiritual ways individuals who have transgressed social mores can reintegrate themselves into their community, "a process which entails freeing someone or something from a less than desirable state and bringing or restoring them to a desired state" (p. 241). They suggest that traditional drug substitution programs (e.g., methadone maintenance) provide a legitimate and secular pathway for redemptive changes in people who engage in chronically dysfunctional (i.e., dependent) psychoactive substance use. Likewise, they propose that psychoactive substances such as ayahuasca, used in socially-sanctioned ritual contexts, may be a spiritual pathway for similar redemptive changes in drug-dependent individuals. Among the examples they offer in support of their argument are the changes reported by UDV members who changed their destructive patterns of drug use after being introduced to a community that drinks ayahuasca ceremonially.

Dobkin de Rios (1996), in a commentary on the findings of the Hoasca Project (Grob et al., 1996), draws on her knowledge of *mestizo* ayahuasca healing practices in Peru to compare it with the more explicitly religious, and also possibly health-promoting, uses of the brew by the UDV. She argues that although ayahuasca drinking practices of the UDV and of the clients of urban *ayahuasqueros* differ, they share their origins in the complex social and economic histories of Peru and Brazil. She contends that the outcomes of both her own research and that of the Hoasca Project with respect to psychiatric health represent an under-researched but important contemporary anthropological phenomenon.

Santos, Landeira-Fernandez, Strassman, Motta & Cruz (2007) experimentally studied the acute effects of ayahuasca on long-term (i.e., at least 10 years of regular, bi-monthly ayahuasca drinking) members of the Santo Daime with respect to measures of anxiety, panic-like and hopelessness. Using a double-blind, placebo-controlled procedure, the researchers administered standard psychometric questionnaires one hour after participants drank either an ayahuasca-containing or a disguised placebo solution. The findings showed that under the effect of ayahuasca, participants scored lower on the scales for panic and hopelessness related states, but demonstrated no modifications of state- or trait-anxiety. The authors speculate that the

noradrenergic and serotonergic agonist action of ayahuasca's biochemical composition may explain the psychological effects of reduced panic and hopelessness, and that such positive psychological effects may be applicable to the larger population. However, they caution that extra-pharmacological variables, such as set and setting, must also be taken into account.

The subjective concepts and beliefs about ayahuasca and healing were investigated by Schmid, Jungaberle & Verres (2010), using qualitative data collected from 15 participants in different kinds of ceremonies (including Santo Daime, neo-shamanic and "do-it-yourself" rituals) in European countries. All of the subjects had medically diagnosed illnesses (e.g., chronic pain, cancer, asthma, depression, alcohol problems, or hepatitis C), and had sought out ayahuasca as a complementary, or in some cases primary, treatment modality. Participants included an approximately equal number of males and females, ranged in age from mid-20s to early-60s, and represented variety of socio-economic classes. They reported a variety of motivations for and subjective effects from the treatments, and, in follow-up, all declared a general enhanced sense of wellbeing after drinking ayahuasca, and about two-thirds reported full remission or lasting declines of observed symptoms. The authors conclude that ayahuasca can usefully be conceptualized as a psychological catalyst, and from a salutogenic perspective may enhance quality of life for people with certain illnesses.

Fábregas et al. (2010) assessed "potential drug abuse-related problems" (p. 257)—such as adverse medical or psychosocial consequences—from long-time regular ayahuasca drinking in studies on two religious groups (one rural Santo Daime, the other urban Barquinha). For each group, subjects were matched with socio-demographically similar non-ayahuasca drinking controls, and all participants were assessed twice over the period of about a year with the Addiction Severity Index (ASI) instrument. The results showed that both groups of ayahuasca drinkers groups were significantly healthier than their matched controls based on the ASI Alcohol Use and Psychiatric Status subscales, and that this result was sustained over time for the rural group, although they also showed a worsening on the family/social relationships subscale for the urban group. They also showed ayahuasca drinkers had ceased any use of more habituating psychoactive substances, such as barbiturates, sedatives, cocaine and amphetamines. The one ASI measure on which all ayahuasca drinkers scored significantly worse was the Drug

Use subscale, as ayahuasca consumption itself was taken into account for this measure. The authors conclude that ayahuasca drinking is not associated with psychosocial problems that characterize problematic substance use.

## **Spirituality**

Contemporary popular discourses about ayahuasca frequently characterize the experiences it induces as spiritual, regardless of whether it is used in the context of a formally organized religious group such as the Santo Daime or UDV, *vegetalismo*-style ceremonies, or even in less formal psychonautic contexts. Although spiritual experiences may not necessarily be an intrinsic corollary of ayahuasca drinking, the reverential status the vine is accorded in both Amazonian indigenous communities and contemporary religious movements, such as the Brazilian churches, suggests that such experiences are a frequent and valued outcome. In this section I review some of what has been written about ayahuasca and spirituality (i.e., non-denominational, often primary mystical experiences induced by the tea) or religion (i.e., the beliefs, tenets and practices of the Brazilian ayahuasca churches) in modern contexts, some of which falls outside the genre of academic literature, but nevertheless offers insight into how ayahuasca is being constructed in popular discourses. Another Brazilian church, the Barquinha, uses ayahuasca sacramentally, but since it has been less important in the globalization of the brew and less research has been published about it, studies relating to it will not be covered here.

The Brazilian ayahuasca churches—particularly the CEFLURIS line of the Santo Daime—are among the most important cultural vectors for ayahuasca's dissemination as a catalyst for spiritual experiences outside its native Amazonian territory. Although they have different doctrines and ritual elements, and their practices emerged separately at different times and places in Brazil, the Santo Daime and UDV have as their nexus sacramental ayahuasca drinking practices that blend elements of Amazonian indigenous traditions, African spiritualism and Christian liturgy. Both have been the subject of considerable academic research in the past few decades, of which a substantial part is available only in Portuguese or other languages, and is not covered here; however, Labate, Rose & Santos (2009) have written a helpful research handbook outlining a comprehensive multi-lingual bibliography with accompanying critical essays.

MacRae (2004) provides a useful analysis of these religious traditions (as well as the smaller and lesser-known Barquinha ayahuasca church) and their significance as a chapter in a book on cross-cultural and post-colonial psychoactive substance use. In addition to briefly summarizing their specific histories and traditions, MacRae argues that the Brazilian ayahuasca churches share an orientation towards their sacrament that fosters social cohesion and provides a contemporary model of group-regulated, responsible psychoactive substance use.

The Santo Daime is the central focus of an earlier ethnographic research paper by MacRae (1992), which offers a comprehensive overview of the history, evolution, ritual structure and modern social context of the church's ayahuasca drinking traditions. MacRae provides background discussion of theories to understand psychoactive substance use and traditional indigenous and *mestizo* uses of ayahuasca. He then goes into considerable detail about the Santo Daime's development through the 20<sup>th</sup> century, including the personal and political struggles between the various groups that vied for legitimate succession after Mestre Irineu's death in 1971, the effects of the influx of newcomers such as itinerant "hippie" backpackers in the 1970s, and the government persecution the church faced with respect to the legality of its sacrament.

Polari de Alverga (1999), a Brazilian writer and former political dissident, provides an overview of the Santo Daime church and a detailed account of his own path to becoming a *padrinho* (male spiritual leader) in it. The author begins by describing his disillusionment with Christianity and the subsequent change of heart he experienced through drinking ayahuasca in the context of the Daime rituals. He provides some of the history of the church and recounts the stories of his teachers, such as Padrinho Sebastião, a charismatic medium whose initial encounter with ayahuasca was a profound experience of both physical and spiritual healing. As a member of the first committee charged with recommending policy direction on syncretistic ayahuasca drinking practices by the Brazilian government's *Conselho Federal de Entorpecentes* (Federal Narcotics Counsel, or CONFEN) in the early 1980s, Polari de Alverga was able to witness and testify to the social benefits and apparent absence of harm that the ritual use of the brew produced among its members. The book blends autobiographical narrative with elements of Santo Daime doctrine and philosophical reflection on a novel Christian spiritual practice.

MacRae (1998) discusses a novel innovation to the Santo Daime liturgy by CEFLURIS after the church's ramification in 1971, the incorporation of "Santa Maria," or cannabis, as an adjunct sacrament to ayahuasca. After establishing Colonia 5000, a community created on the outskirts of Rio Branco in the 1970s, CEFLURIS leader Padrinho Sebastião welcomed newcomers that included young middle-class Brazilians who in turn introduced him to other psychoactive plants such as psilocybin mushrooms and marijuana. Padrinho Sebastião, impressed with what he perceived were marijuana's spiritual and medicinal properties, established rituals for the "proper sacred use of Cannabis" (MacRae, 1998, p. 332). However, Santo Daime's use of marijuana soon instigated a police crackdown and greater government scrutiny of ayahuasca. Ultimately, the CEFLURIS was compelled to officially renounce Santa Maria as a sacrament, although its use reportedly continues today among some members (see, for example, Schmidt, 2007, pp. 129-130).

Schmidt (2007) reports on 15 months of anthropological fieldwork during which she studied the moral frames and religious practices of Santo Daime members living in the community of Céu do Mapiá, the Amazonian headquarters of CEFLURIS. She describes the daily life routines and importance of *caboclo* (i.e., Brazilian rural peasant) identity for many older Céu do Mapiá residents, and the negotiation of these with respect to community membership by new urban Brazilian and non-Brazilian Santo Daime members, who may visit Céu do Mapiá for extended periods for deeper spiritual learning or as a kind of pilgrimage. She also explores the role that illness and healing often play in spiritual awakening for Santo Daime members, and of course the importance of the Daime sacrament in how church members perceive and practice morality. Schmidt notes the importance of sustainability and ecology in the moral discourses and practices of Céu do Mapiá residents, which is likewise tied up in *caboclo* and Amazonian geopolitical identity and the globalization of the new religious movement. She concludes that the Santo Daime emphasis on morality as practice arises out of the perception of agency in the Daime sacrament itself, which is believed to offer guidance in all aspects of religious and secular life.

Dawson (2008) likewise discusses the results of fieldwork studying Santo Daime members in Céu do Mapiá, and in particular the importance of millenarian themes in the religious discourse

of community members. According to Dawson, both the long-time rural poor and the newer urban middle-class Brazilian members of the Santo Daime have embraced an ecologically-grounded end-of-times belief system. This arises from dissatisfaction with the late modern Brazilian and broader global socio-political power structures, and has resulted in what he calls a "practical-symbolic crisis" whereby "positive transformation will come from neither internal reform of the [current] system nor strategic engagement with it," (Dawson, 2008, p. 6) but rather from esoteric knowledge acquired and inner salvation realized by drinking the sacramental Daime tea.

The Centro Espírita Beneficente União do Vegetal (or UDV) is the other primary ayahuasca church in Brazil, although it is newer than the Santo Daime and adheres to different doctrines and ritual structures. MacRae (MacRae, 2004) offers a brief overview of the UDV, which was started in 1961 by José Gabriel da Costa (or Mestre Gabriel to his followers), another rubber tapper who was introduced to "hoasca" (the UDV's term for its sacramental preparation of B. caapi and P. viridis) in the Brazilian Amazonian state of Rondônia. In contrast to the animated Santo Daime ceremonies, in which singing and dancing regularly happen, the UDV rituals are more staid affairs in which participants sit, reflect and sometimes participate in question and answer sessions with church leaders after drinking their sacrament. The UDV attracted urban middle-class followers, who brought relative education and affluence to the church and an interest in legitimizing ayahuasca with respect to the medical research establishment. Its doctrines are somewhat puritanical, emphasizing "abstinence from [alcoholic] drink, tobacco, sexual misdemeanours, as well as dancing or attending the ceremonies of other ayahuasca religions" (MacRae, 2004, p. 38). Elsewhere, MacRae notes that the UDV has "a pretension to being the only bearers of the true ayahuasca doctrine" (1998, pp. 335-336).

Trichter, Klimo & Krippner (2009) recently conducted research on novice ayahuasca drinkers to assess how participation in ayahuasca ceremonies (conducted by two itinerant Peruvian *ayahuasqueros*, one in California and the other in British Columbia) affected their spiritual beliefs. Using a mixed quantitative/qualitative methodology—incorporating instruments such as the Peak Experience Profile, the Spiritual Well-being Scale and the Mysticism Scale, as well as open-ended interviews—the researchers found that measures of spirituality were not significantly

increased for subjects from the California group, but were for those from the Canadian group. They also found that the Canadian subjects reported more positive experiences in their qualitative interviews. Significant limitations of this research were the self-selection and relatively small number of research subjects, gaps in data collection, and the use of different ayahuasqueros and ceremony settings in the different countries; however, it supports the general claim that even outside explicitly religious contexts, ayahuasca drinking can precipitate spiritual experiences (broadly defined).

Similarly, Kjellgren, Eriksson & Norlander (2009) conducted a survey of Northern European ayahuasca drinkers to learn about the reasons they had for seeking it out, what they experienced, and what impacts they perceived it had on their lives. Using qualitative methods to analyze the data collected from 25 subjects, the researchers found six common themes that characterized the course of most participants' encounters with ayahuasca: a) motivation prior to drinking, such as seeking healing or illumination; b) contractile frightening state in the early phase after drinking; c) sudden transformation of the experience, turning from negative to positive; d) limitless expansive states, or transpersonal experiences; e) reflections towards the end and immediately following the experience; and f) changed worldview and new orientation to life. The researchers note the consistency of these descriptions with other reports on the phenomenology of ayahuasca, and posit the theoretical construct of a "transcendental circle" (pp. 313-314) to typify the cyclical nature of the reported experiences.

#### Westernization/Globalization

Until recently, ayahuasca remained relatively obscure in the pantheon of psychoactive substances known to modern Euroamerican popular culture. However, its emergence in contemporary public discourses and into popular consciousness has been steadily increasing in the past few decades. Both academic and lay writers have contributed to a growing literature on the cultural background and experiential effects of the brew, a key aspect of its transnational expansion. It is this sociological trend that has led to policy and legal issues for many liberal democratic states in the early 21<sup>st</sup> century, including Canada. In this section I review some of the texts that pertain to—and, in some respects, may be drivers of—ayahuasca's growing popularity outside of its native Amazonian habitat.

Although a few books for lay audiences that mention ayahuasca were published in English in the first part of the 20<sup>th</sup> century (MacCreagh, 1961; Spruce, 1908), one of the first to be widely read was Burroughs and Ginsberg's *The Yage Letters* (1963). In this compilation of letters sent from Burroughs to Ginsberg from Colombia and Peru in 1953 and from Ginsberg to Burroughs from Peru in 1960, the authors recount their respective quests to find *yagé*, or ayahuasca, which Burroughs, a committed opiate aficionado, had naively characterized as "the final fix" (Harris, 2006, p. xii). The reports they provide of their experiences with ayahuasca—which amount to only a very small portion of the book—exemplify their stream of consciousness writing styles perhaps better than a generalizable description of the nature of the effects of the brew. Nevertheless, Burroughs and Ginsberg's book was one of the first accounts of ayahuasca's effects that reached a relatively broad global audience.

In the early 1970s, following the success of Castaneda's (1968) stories of "indigenous" ways of learning from plant medicines, Lamb (1974) first published *Wizard of the Upper Amazon* in 1971 as a popular ethnography cum adventure tale. The book relates the supposed autobiographical story of Manuel Córdova Rios's experiences living for seven years with the Amahuaca indigenous peoples of Peru. Claiming to have been kidnapped by the tribe at age fifteen and then groomed by their chief to be his successor, Córdova Rios vividly describes details of his training to prepare and administer ayahuasca and the experiences he had with the brew. The book was further popularized by its mention in Andrew Weil's *The Natural Mind* (1972), and Weil contributed an introduction to the second edition published in 1974. However, similar to the exposure of the dubious integrity of Castaneda's writings (de Mille, 1990; Fikes, 1993), Lamb's book was denounced by an anthropologist who had spent years living with and studying the Amahuaca. Carneiro (1980) revealed that numerous aspects of Córdova Rios' story were inconsistent with what he knew of Amahuaca culture, and argued that the descriptions of the "tribe" seemed to be a mélange of traits drawn from a number of disparate Amazonian cultures. However, this did not deter Lamb (1985) from publishing a sequel in the mid-1980s.

Another significant book relating to ayahuasca in the early 1970s was Michael Harner's edited volume, *Hallucinogens and Shamanism* (1973b). Harner, an anthropologist who studied

ayahuasca drinking traditions among the Shuar (formerly known pejoratively as the Jivaro), devoted more than half the essays in his book to ayahuasca. The majority of the contributions devoted to ayahuasca discuss traditional "primitive" cultural uses, but a few—such as Dobkin de Rios' (1973) and Harner's own (1973a)—address more modern and transcultural aspects of ayahuasca shamanism. The book focuses mostly on traditions of use in indigenous contexts, which besides being interesting in its own right can provide helpful context for appreciating more fully the beliefs and practices of the Santo Daime, the UDV and other syncretic ayahuasca religions.

Terence McKenna and Dennis McKenna (1975) offered some metaphysical speculations about tryptamines, genetics, shamanism, and eschatology in a book that Terence later described as "monumental in its ambition to build a new system that integrates all nature—animate, inanimate, social and psychological—into one mathematically coherent web of interconnected and evolving resonances" (McKenna & McKenna, 1994, p. xxv). The book comprises a curious mix of science and philosophy, framed within a context of a journey to the Amazon to experiment with psychoactive plants, including ayahuasca. It summarizes detailed information on the botany and chemistry of a variety of South American flora used in shamanic traditions, along with esoteric insights into such topics as the classical Chinese *I Ching* text and the Mayan calendar. The McKenna brothers' work foreshadows the trajectory that each subsequently took in his respective career as popular psychedelic philosopher and ethnobotanist, throughout which they both maintained a strong interest in ayahuasca.

In *The Marriage of the Sun and the Moon*, Weil (1980) summarizes what he learned about psychoactive substances, altered states of consciousness and culture while travelling and researching as a fellow for the Institute of Current World Affairs in the 1970s. In one chapter, Weil recounts his experiences in the Putumayo region of Colombia, seeking information on *yagé* from the local Sibundoy indigenous people. Weil's single experience with *yagé* at that time proved to be underwhelming, perhaps in part because the informants he worked with were more habituated to drinking *aguardiente*, a local distilled alcohol product, than to drinking *yagé*. The high expectations he had of experiencing visions of jungle animals and telepathic states were not realized, as he found that the force of his nausea overpowered any visions that came up. Weil

also lamented what he saw as the debasement of traditional practices from the commodification of *yagé* and the incipient ayahuasca tourism he witnessed in the region.

The 1980s was a period of relatively few publications on the subject of psychedelics or entheogens, a time that Ott has termed "the Reagan Dark Ages" (1996, p. 239). One exception to this is Dobkin de Rios' *Hallucinogens: Cross-cultural Perspectives* (1984), a book that covers a variety of cultural practices incorporating psychoactive substances. Although Dobkin de Rios wrote her Ph.D. dissertation on the use of ayahuasca by *mestizo* healers in Iquitos, the brew does not figure as prominently in this book as might be expected. And the information about ayahuasca she does provide in this text is essentially a recapitulation of work published earlier elsewhere. Nevertheless, the book offers a synoptic perspective on a variety of traditions and illustrates some of the similarities ayahuasca drinking has with other entheogenic cultural practices.

Luna and Amaringo (1991), in *Ayahuasca Visions*, produced a book that combines Pablo Amaringo's detailed artistic renderings of his ayahuasca visions with Luna's insightful commentary from the perspective of an anthropologist well-acquainted with the cultural meanings of their symbolism. With forty-eight full-colour prints of Amaringo's paintings covering a range of themes pertaining to *vegetalismo* practices and Peruvian Amazonian *mestizo* cosmology, the book is a rich source of information—both graphic and textual—about an enduring tradition of ayahuasca drinking. Luna and Amaringo offer readers an insight into both the archetypes represented in ayahuasca visions and the cultural significance they have in the context of traditional Peruvian *vegetalismo*.

Schultes and Hofmann's *Plants of the Gods* (1992) is a comprehensive lay source of ethnopharmacological knowledge of entheogens, including ayahuasca. Written and laid out in an accessible style, the book describes and illustrates the plants used for visionary purposes in a number of cultures and traditions of their use. In the "Vine of the Soul" chapter, the authors emphasize the cultural importance of ayahuasca to Amazonian indigenous peoples, and include a number of photographs of Tukano art inspired by ayahuasca visions.

Two books by Ott—*Ayahuasca Analogues: Pangæan Entheogens* (1994) and *Pharmacotheon* (1996)—provide a thorough review of the literature of ayahuasca botany, pharmacology, and contemporary cultural history, as well as "psychonautic reports" of experiments he performed with various analogue preparations made from combinations of other plants containing DMT and harmala alkaloids. Ott's work combines intrepid self-experimentation with a rigorous scholarly method, offering a comprehensive summary of ayahuasca pharmacognosy. Working as an independent researcher with no academic affiliations, Ott's books are manifestly outstanding intellectual endeavours that testify to the value of amateur (in the non-pejorative, etymological sense of the term) science and the pursuit of cognitive liberty.

Davis' *One River* (1996) merges stories about the author's own adventures working as an ethnobotanist in the Amazon with a biographical narrative of his teacher and mentor, Harvard professor Richard Schultes, the grandfather of scientific ethnobotany. Davis takes up a variety of themes, including centrally the beauty and value of the Amazon rainforest, but also such topics as the origins of the coca plant, the history of the Amazonian rubber boom and bust, and the U.S. influence on South American culture and politics in the 20<sup>th</sup> century. Nominated for a Canadian Governor-General's Award in 1997, *One River* conveys a sense of the wonder and rewards of ethnobotany, particularly with respect to its treatment of psychoactive substances such as ayahuasca. The book culminates with an account of Davis' own experience with the brew, which relates in vivid detail the sometimes harrowing phantasmagoria of his thoughts and visions under its influence.

In *The Cosmic Serpent*, Narby (1998) presents the intriguing hypothesis that humans can communicate with other DNA-based life forms, including plants, through altered states of consciousness such as those induced by ayahuasca. He proposes that the knowledge Amazonian shamans acquire through their use of ayahuasca is very similar to what biologists learn using the latest scientific laboratory instruments and technologies. He describes his initial incredulity about his indigenous Asháninka (Peruvian Amazonian) informants' claims that their immense botanical knowledge was obtained through drinking ayahuasca. However, Narby's reflections on representations of shamanism, the pretensions of anthropology, and the limits of positivistic science—coupled with several profound experiences with the brew—led him to accept that the

Asháninka (and other indigenous) ways of knowing might be more epistemologically powerful than he had assumed.

Narby (2002) followed up on his interest in the cross-cultural and trans-disciplinary value of ayahuasca by accompanying three molecular biologists to the Peruvian Amazon, where they participated in ayahuasca ceremonies to see whether they had insights relevant to their scientific work. He reports that all three found the experience valuable, as "it changed their way of looking at themselves and at the world, as well as their appreciation of the capacities of the human mind" (p. 161). However, they also acknowledged the challenging nature of learning by drinking ayahuasca. Narby suggests that both Western and indigenous cultures would mutually benefit from more of such knowledge and practice interchanges.

Metzner (1999) edited a book on ayahuasca that incorporates essays by academic experts on ayahuasca research and a couple of dozen first-hand accounts of teachings through ayahuasca experiences by non-indigenous Westerners. The academic part of the book conveys in an accessible style a summary of the scientific knowledge about the ethnopharmacology, psychology and phytochemistry of ayahuasca. The experiential narratives, on the other hand, describe a variety of interpretations of the benefits some individuals feel they have gained by drinking ayahuasca. Metzner's book illustrates the kinds of discourses that are emerging about the healing and spiritual effects of ayahuasca drinking in contemporary Western contexts.

Luna and White compiled essays and excerpts of texts from over a dozen different languages in their *Ayahuasca Reader* (2000), which takes what the editors describe as an "anthropoliterary" perspective on ayahuasca. The book includes such items as transcriptions of Amazonian indigenous myths about ayahuasca, anthropologists' accounts of their work with *ayahuasqueros*, descriptions of ayahuasca experiences by Westerners, and translations of Santo Daime hymns. Luna and White articulate their project as one of taking up the challenge to "approximate the ineffable by means of the word transfigured by *ayahuasca*, and impart a state of grace that in some way resembles the one that lingers and resonates long after the visionary experience itself' (p. 12). At the very least, it succeeds in providing Anglophone readers access to written material about ayahuasca that would otherwise be inaccessible.

McKenna (2005) has recently written about some of the philosophical insights he has gotten from his ayahuasca experiences, offering an interpretation of the significance of its emergence from the Amazon in recent decades. Like Narby (1998), McKenna argues that the impetus of the ayahuasca-naïve Western intellectual tradition to categorically dismiss the notion of "plant intelligence" is unsound, flying in the face of both traditional indigenous wisdom and his own experience. McKenna observes that humanity's present ecological predicament testifies to the collective ignorance of our species (or at least its current political and economic leaders) with respect to the modern imbalanced relationship with the non-human world, and that ayahuasca may be "an emissary of trans-species sentience, to bring this lesson: You monkeys only think you're running things" (2005, p. 232). As the work of an esteemed scientist, McKenna's essay markedly departs from the usually conservative conclusions presented in academic forums. However, its philosophical speculations about the future of humanity, ayahuasca, and the relationship between them, offer a provocative take on the 21<sup>st</sup> century human ecological condition.

The increased interest in ayahuasca beyond the Amazon has led to a phenomenon characterized by Ott (1994) as "ayahuasca tourism." In Ott's estimation, ayahuasca tourism threatens to "disrupt the evanescent remnant of preliterate religiosity struggling to make a place for itself in the modern world, while attracting the wrong kind of political attention to ayahuasca" (p. 12). Indeed, he discloses that one of his primary motivations in publishing his research on ayahuasca analogues is to help render superfluous the need to travel to the Amazon to have an ayahuasca-like experience. However, whether Ott has been successful in achieving this objective is debatable, as his work has arguably contributed to piquing people's curiosity about the brew, and he may have underestimated the contemporary desire of many to seek what they perceive as "authentic" ayahuasca experiences in the Amazon.

Dobkin de Rios (1994) has likewise expressed concern about ayahuasca tourism, suggesting that it is a somewhat predictable "post-modern phenomenon as world capitalism changes its emphasis from production to consumption and meeting consumer needs" (p. 16). She provides other examples of drug tourism in recent history, including French colonists seeking *iboga* in Gabon in

the 1950s and Americans looking for psilocybin mushrooms in Mexico in the 1960s and 70s. With respect to ayahuasca tourism in the Amazon, Dobkin de Rios notes the rise in the 1980s of brochures, travelogues, and new age magazine advertisements that promote "shamanic training" for undiscerning foreigners. According to her, many such tourists remain oblivious to the impact that colonialism and other forces of modernity have had on the indigenous and *mestizo* populations. Likewise, self-styled shamans, who may lack the requisite training and preparation of the traditional *ayahuasquero*, are more than willing to engage in a theatrical performance to provide customers what they want. More recently, Dobkin de Rios (2006) has called other anthropologists to task for being complicit in the popularization of ayahuasca and ayahuasca tourism, arguing that they have a responsibility to educate about the harms that may be caused by irresponsible use of the brew.

Based on an interview with urban *ayahuasquero* Guillermo Arévalo, who practices in Iquitos, Peru, Dobkin de Rios (2005) reports that ayahuasca tourism continues to be a growth industry in the early 21<sup>st</sup> century. Arévalo distinguishes between folkloric or false shamanism and authentic shamanism, arguing that the many practitioners of the former endanger tourists by administering ayahuasca without knowing what they are doing, or sometimes adding other toxic plants (e.g., *toé*, or *Brugmansia* species) to their brew. He observes that young people in his culture are increasingly less inclined to devote the considerable time and adhere to the arduous dietary and sexual restrictions necessary to become properly trained *ayahuasqueros*. With respect to the tourists themselves, Arévalo notes that many are looking for resolution to personal problems (such as trauma from sexual assault among women) or cures for physical or psychological illnesses; he also observes that some seek ayahuasca for spiritual or intellectual reasons.

Dobkin de Rios and Rumrill present a summary of their views on contemporary ayahuasca drinking and its globalization in a co-authored book, *A Hallucinogenic Tea, Laced with Controversy* (2008). Drawing largely on Dobkin de Rios' previously published work, the book outlines concerns the authors have with the motivations Euroamericans have for visiting the Amazon to learn about and experience ayahuasca, and the impacts this trend is having on local folk healing traditions and economic relations in places such as Iquitos, Peru. They present a critical portrait of drug "zealots" who promote the beneficial potentials of psychedelics or

entheogens, which they suggest has contributed to increased interest in ayahuasca and drug tourism in the Amazon, although they also note that the international growth of the Brazilian churches has been a central aspect of the legal issues relating to ayahuasca and freedom of religion in the United States. Dobkin de Rios and Rumrill (2008) are mostly critical of the sociological trends they discuss, without much equivalent critical analysis of the global drug policy context in which the object of their inquiry takes place.

Winkelman (2005) took up the question of what motivates ayahuasca tourists, arguing that Dobkin de Rios (1994) may have oversimplified a complex phenomenon in disparaging it as merely drug-dilettantism. Winkelman interviewed sixteen subjects at the beginning and again at the end of an eleven-day stay at an Amazonian ayahuasca retreat centre to discover what brought them there and what benefits they felt they got from their participation in ayahuasca ceremonies. The subjects were mostly American and European, ranging in age from twenty-something to sixty-something, and about two-thirds were male. Reasons for their visit to the ayahuasca retreat centre included spiritual seeking, emotional healing, to reinvigorate a sense of life purpose, and to treat drug dependence issues; only one responded with an answer that fit a motivation of hedonism. Subjects reported such benefits from drinking ayahuasca as increased personal insight and self-awareness, spiritual insights, and physical and emotional healing. Winkelman acknowledges that the results of this research are preliminary and by no means represent a "typical" ayahuasca tourist, but argues it does belie broad characterizations of most ayahuasca tourists as merely thrill-seeking drug dilettantes.

Luna (2003) discusses the phenomenon of ayahuasca tourism from the perspective of his role as a contemporary "neo-ayahuasquero," a non-indigenous person who conducts ayahuasca ceremonies at a centre he established in Florianópolis, Brazil. Luna insists that he is not a "shaman," as he does not adopt any specific shamanic discourses, cosmology or ideology; he prefers the term facilitator. However, he acknowledges that at times he does "shamanic work" during ceremonies, adopting and adapting practices he learned from mestizo and indigenous ayahuasca healers over several decades. Luna makes clear that he feels bound by the kinds of ethical guidelines articulated in the Yurayaco Declaration (Union de Medicos Indigenas

Yageceros de la Amazonia Colombiana, 1999), although he rejects its assertion that non-indigenous people cannot authentically or legitimately work with ayahuasca.

Beyer's book Singing to the Plants (2009) covers a broad range of topics relating to mestizo shamanism in the upper Amazon, including the uptake of ayahuasca drinking by non-indigenous Westerners such as himself. Although the majority of Beyer's book focuses on ethnographic background and practical details of contemporary Amazonian shamanic healing practices, the latter part addresses ayahuasca's uptake in the modern global context and issues arising therefrom. For example, Beyer identifies new syncretisms arising through late modern influences on traditional ayahuasca shamanism, in such domains as technology, art, music, politics and spiritual beliefs (including, for example, connections with other aboriginal peoples of South and North America, a manifestation of the post-colonial prophecy of the meeting of condor and the eagle). Beyer also discusses ayahuasca tourism's impact on Amazonian communities, arguing that while it does bring in monetary wealth that can have positive effects, it also creates opportunities for crass commercialization and the exacerbation of socio-economic inequities. Beyer concludes by expressing concerns shared with him by his older *mestizo* informants, experienced ayahuasqueros who lament that young people in their communities lack the interest, commitment and discipline necessary to take up apprenticeships and learn the traditional folk healing practices.

The academic literature on ayahuasca is relatively small in comparison to the importance of the question of the brew's potential to facilitate therapeutic, spiritual, or as I argue, educational insights. The early research on ayahuasca focused on its botanical origins and traditional cultural uses in the Amazon, whereas more recently its psychopharmacology and contemporary uses as a medicine and sacrament have begun to be investigated. Gaps in the literature, and thus promising future research directions, include: ayahuasca's potential as an adjunct to addictions treatment, which is often alluded to, but has not yet been rigorously evaluated; the long-term impact of its use among adolescents; the effects it may have *in utero*, on the foetuses of women who drink during pregnancy (as is not uncommon among some Brazilian members of the Santo Daime and UDV); the risks it may pose when used in combination with various modern pharmaceutical

drugs; and the ecological consequences of increased harvesting of wild ayahuasca resulting from a global growth in demand.

In conclusion, although the published academic literature on ayahuasca is relatively scant, it promises to grow rapidly in the coming years. At the Multidisciplinary Association for Psychedelic Studies (MAPS) 2010 conference, a meeting of international ayahuasca researchers was very well attended, demonstrating a rising interest about the brew in the academic world (Labate & Cavnar, 2010). However, despite the relative paucity of formal research finding published to date, both anecdotal evidence and the small extant literature suggests considerable potential for exploring the impact of ayahuasca in fields such as health, and as I argue in chapter 6, also in education. However, the realization of any potential benefits may be helped or hindered by public policy decisions—what kinds of uses governments tolerate (or not), under what conditions and by whom. For this reason, ayahuasca drinking in Canada is a current and salient topic for policy analysis, a growing and recalcitrant example of non-medical psychoactive substance use that puts into stark relief the fissures and fractures of the international drug control regime and its underlying drug war paradigm. In the next chapter, I will discuss the theoretical foundations and research methods for a critical analysis of Canadian ayahuasca policy and its broader historical and international context

# **Chapter 2 – Theoretical Foundations & Methods**

# 2.1 – Public Policy

Policy and its creation are complex, multi-faceted phenomena, reflection on which could fill shelves and shelves of books. Likewise, methods of policy analysis are various and can draw on a range of theoretical foundations and philosophical presuppositions. Which of these methods one selects inevitably reflects one's underlying epistemic and ideological frames: the understandings of knowledge, truth, power and ethics that inform how one views, comprehends, and interprets things and actions in the world. Choice of research methods is thus a central consideration in initiating a policy analysis, as the methods one adopts are driven by specific questions, and in turn direct, shape and constrain one's results. This chapter outlines the questions underlying my research, the methods and theoretical frames guiding it, and how these relate to my social-cultural position and world-view as a researcher. It begins with an exploration of the concepts informing my inquiry—"public" and "policy"—and some of the theoretical foundations underlying these. I then explicate some of the details of discursive policy analysis and critical discourse analysis as research methods, especially with respect to public policy as an object of study, and their suitability as a means to probe the data for my inquiry, which consists of hundreds of pages of internal documents generated by Health Canada on the Céu do Montreal Section 56 exemption request and secured through an Access to Information request. The chapter concludes with a short autobiographical account of how I became academically engaged in the unlikely convergence of topics of ayahuasca, public policy and education.

One of the most important specific questions driving my research is why ayahuasca should reflexively be regarded as toxic, dangerous, and illegal by modern drug control authorities when so many drinkers report—and traditional indigenous knowledge and preliminary scientific evidence supports—rather that the brew can be beneficial to physical, psychological, and spiritual health. This question, in turn, stems from another more fundamental quandary: why is the consumption of some psychoactive substances—such as caffeine, tobacco and alcohol—legal, whereas even the mere possession of other substances—such as cannabis, coca and opium—is illegal? Further, why are corporations permitted, or even encouraged, to promote the

consumption of the former, while the production and distribution of the latter is ceded to criminal operators in a pernicious and growing illegal drug market? A third question for my research arises out of the earlier academic work I undertook (Tupper, 2002a) on the concept of entheogenic education: how can we make sense of the mind-expansion, spiritual enlightenment or equivalent learning claims often made by people who have had psychedelic or entheogenic experiences? This latter question relates to public policy insofar as any desire to pursue such experiences is criminalized or pathologized, and the impetus to research their potential cognitive or educational benefits generally maligned as unethical or otherwise taboo. Whether my attempts to address these questions are satisfactorily realized in this dissertation is for the reader to decide. However, as I explain in more detail later in this chapter, the methods of discursive policy analysis and critical discourse analysis are well suited to the exploration, and my educational background in philosophy and English language teaching has prepared me well for deploying them.

The question of ayahuasca as a contemporary public policy problem in Canada and elsewhere demands more specificity about the meaning of terms "public" and "policy." The question of what "public" means was quite publicly raised recently in a program aired on Canada's national public broadcaster, the Canadian Broadcasting Corporation (CBC). Between April and June 2010, CBC Radio One broadcasted and podcasted a 14-episode series called "The Origins of the Modern Public" on its weeknight *Ideas* program (Cayley, 2010). <sup>19</sup> The series was a presentation of ideas generated in a research project at McGill University called "Making Publics," which drew together an interdisciplinary research team of scholars thinking about the early modern origins of the public sphere in Western Europe (and particularly England) in the 16<sup>th</sup> to 18<sup>th</sup>

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<sup>&</sup>lt;sup>19</sup> Another *Ideas* series by David Cayley, 24 episodes on "How to Think about Science" (2009) was likewise inspirational for its overview of contemporary science and technology studies, a field that I have also delved into in making sense of contemporary knowledge paradigms and their impact on ayahuasca policy. In some respects, these series are a testament to the residual value of a public broadcaster with some independence from the imperatives of the mass market appeal for its programming. However, the public radio broadcast of a series devoted to the "Making Publics" project, while an ingenious knowledge-transfer partnership between the humanities scholars at McGill and a crown corporation, at the same time self-referentially raises important questions about in exactly whose interests states claim the authority to control and regulate the airwaves (Langlois, Sakolsky & van der Zon, 2010). I would also like to acknowledge Jan Irvin's Gnostic Media podcasts (<a href="http://gnosticmedia.podomatic.com">http://gnosticmedia.podomatic.com</a>), KMO's C-Realm podcasts (<a href="http://gnosticmedia.podomatic.com">http://gnosticmedia.podomatic.com</a>), three examples of non-commercial, Internet-based alternative media programs whose dissemination of independent intellectual, political and economic ideas has stimulated some of my thinking about the future of ayahuasca, humanity, and the world in the coming century.

centuries. The podcasts of "The Origins of the Modern Public" series have offered helpful directions in pursuing a broader understanding of the socio-historical conditions under which ayahuasca has emerged as a public policy issue for liberal democratic states such as Canada in the early 21<sup>st</sup> century.

One of the key intellectual springboards from which the "Making Publics" project was launched was the work of German philosopher Jürgen Habermas, whose book *The Structural* Transformation of the Public Sphere (1962/1989) took a socio-historical approach to explaining the political, economic and cultural trajectories of modernity. Habermas contends that, before the Renaissance period of approximately 1450 to 1700, nothing identifiably *public* existed in Western Europe, but that a bourgeois public sphere emerged through the establishment of institutions such as the nation state, mass media, and merchant capitalism in the 17<sup>th</sup> and 18<sup>th</sup> centuries. These events, among others, marked the beginning of modernity, a term which refers to the sociological conditions of secularism, colonialism, urbanism, industrialism, nationalism, consumerism, and bureaucratization that arose between the 17th and 20th centuries. The advent of modernity coincided with the epistemological revolution produced by scientific theories and methods of what its own discourse celebrated as an ethnocentric cultural "Enlightenment" (Saler, 2006; Payne, 1996). Some characteristic assumptions of modernity are: humans are autonomous individual subjects; science and rationality can lead individuals to truth; through technology humans can exert power and control over a mechanistic natural world; and a linear path of progress will allow humans to perfect social structures (Bowers, 1993; Ellwood, 1994). Habermas (1962/1989) suggests that post-Copernican uncertainties about the Ptolemaic firmament, post-Columbian doubts about geographic and other knowledge of the Ancients, and post-Lutheran questionings about authoritative religious dogma, inspired influential thinkers such as Francis Bacon and René Descartes to secure knowledge through the application of induction and reason in a newly-formed intersubjective public sphere potentiated by emerging print-based discursive communities.

In the 18<sup>th</sup> century, with the development of modern liberal democratic forms of governance such as the Westminster parliamentary system, so-called public opinion became a source of authority for state sovereignty (rather than the divine right of the absolute monarch) and public interest a

touchstone for the good of civil society (rather than the orthodoxies of church and state), although these are both ultimately abstractions derived from concatenations of private opinions and interests. Among its other core characteristics, the new public sphere assumed the right to invigilate, interrogate and influence affairs of nature, society and the state, and it accorded authority not in ethos or social rank, as had been the medieval tradition, but in soundness of rational argument (Lemmings, 2009, p. 246). Such discussions about philosophical, public and political affairs took place within the newly emergent discursive realms afforded by commercial printing and dissemination of periodical newspapers, gazettes, journals, pamphlets and flyers (Barker, 2000; Weber, 2006; Gestrich, 2006), which were the forebears of 20<sup>th</sup>-century academic publishing and mass-market news and entertainment media as dominant pre-Internet knowledge forms (Starr, 2004; Willinsky, 2006). In further examinations of the development of the modern international drug control regime in chapter 3, I will refer back to the origins of the modern public sphere and the conditions it established for the implicitly presumed deviance and illegitimacy of entheogenic uses of substances such as ayahuasca in the 21<sup>st</sup> century.

Policy may be understood as both the process and product of defining problems facing governments or institutions, and of deciding how and where political, financial, martial or other human capital should be allocated to respond—or, at least be seen to respond—to them. Colebatch (2002) identifies authority, expertise, and order as central elements of policy decisions, attributes which imply legitimacy, relevance and consistency. However, policy is more than just decision making; it is also about action—sometimes resulting from a deliberate decision, sometimes from several small decisions, and sometimes from no decision at all (Hill, 1997). From the perspective of recent critical policy analysis theories, informed by poststructuralist understandings of language, discourse and power, policy is also fundamentally a discursive construction informed by the beliefs, values and ideological commitments of multiple actors with competing interests. As Frank Fischer observes, "[p]olitics and public policy are understood to take shape through socially interpreted understandings, and their meanings and the discourses that circulate them are not of the actors' own choosing or making" (2003, p. 13). Policy is thus more than the central decisions, interpretations and executed actions of

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<sup>&</sup>lt;sup>20</sup> In the 17<sup>th</sup> century, as feminist critics of Habermas point out, this meant the interests of propertied white men (see Fraser, 1990), although today it often means the interests of private, limited-liability corporations (see Bakan, 2004).

governments; it is itself a discursive product informed by much larger social forces and latent power structures in language and public discourse.

My work is further grounded in some of the ideas of sociologist Immanuel Wallerstein, and employs some of key features of what he terms "historical social science" (2004, chap. 10) a theoretical approach to research on human social matters that attempts to move past some of the long-standing disciplinary divisions in higher education. Wallerstein argues that recent shifts in the "two cultures" of the academy—i.e., humanities and sciences, which C.P. Snow (1964) famously identified as stalemated antagonistic intellectual frames in the mid-20<sup>th</sup> century—have significant implications for researchers in the social sciences (e.g., history, economics, political science, sociology and anthropology), the third primary domain in the trimodal modern Western construction of knowledge (Geertz, 1983, p. 21). The social sciences, whose historic disciplinary leaders looked to the methods and discourses of the natural sciences as the epistemic ideal, were seriously challenged by intellectual trends undermining the certainties of positivism in the late 20<sup>th</sup> century.

According to Wallerstein, the two cultures themselves are an artifact of the 18<sup>th</sup> century, when European universities were transitioning from medieval institutions with four faculties—theology, medicine, law, and philosophy—to modern institutions in which theology had effectively disappeared, medicine and law became technical disciplines, and philosophy split into faculties of arts and sciences (Wallerstein, 2004, p. 18). Although the Baconian approach to natural philosophy (as science was originally called) had in the 17<sup>th</sup> century been pursued largely outside universities, its ascendant prestige in both the public and political spheres during the 18<sup>th</sup> and 19<sup>th</sup> centuries gave institutions of higher learning—serving the politico-economic interests of both the liberal nation-state and industrial capitalists—an opportunity to meet the demand for knowledge specialists and experts in what became known simply as science. The result was the seemingly intractable two-cultures division between philosophy and science, where the former became relatively inconsequential and "was relegated to the search for the good (and the beautiful) . . . [and] science insisted that it had the monopoly on the search for the true" (Wallerstein, 2004, p. 2). The power structures within the emerging modern knowledge

production terrain dictated that questions about reality were not for philosophers to answer, rather:

science—by which we meant Newtonian, determinist, linear, time-reversible science—was accepted as the only legitimate mode of answering such questions. The only alternative to science was thought to be a theological one, and what distinguished modern civilization, it was argued, was the rejection of the relevance of theology for explanations of reality. (p. 157)

An exemplar of Enlightenment thinkers who regarded spiritual or religious sentiments and modern social, economic and political progress as incompatible was French Enlightenment social theorist, Henri de Saint-Simon, who espoused in the late 18<sup>th</sup> century that Newtonian science should supplant religious belief in civil society (Newman, 2005). Saint-Simon's secularist ideology appealed to many 19th century thinkers, including Karl Marx, but it was his influence on August Comte, John Stuart Mill and Herbert Spencer that spawned positivism, a philosophical movement that haunted early 20<sup>th</sup> century social scientists in their efforts to duplicate the methods, discourses, and perceived epistemic security of the "hard" sciences (Fuller, 2006, pp. 82-88). The positivist movement held that empirical, experimental sciences best exemplified by astronomy and Newtonian physics—were the certain and exclusive ways to find truth, and its influence was deeply felt in academic disciplines such as sociology, anthropology, psychology and political science. However, even more important for my interest in tracing a history of drugs and the drug war paradigm (and their influence on contemporary ayahuasca policy deliberations), positivism was a tremendously influential set of principles for research, policy and practice not just in the social sciences, but in 20<sup>th</sup>-century medicine, law enforcement and education, all of which were key systemic vectors in the establishment of the international drug control regime (discussed in chapter 3).

A legacy of the divorce between science and philosophy in the 18<sup>th</sup> century European intellectual public sphere, the two-cultures divide "is still very much with us, but it has come under serious attack in the past thirty years for the first time in two centuries" (Wallerstein, 2004, p. 158). However, according to Wallerstein, this vulnerability comes from discrete trends in both the natural sciences and humanities towards the end of the 20<sup>th</sup> century. In the natural sciences, the advent of complexity theory has "challenged the fundamental model of modern science,"

sometimes called the Baconian/Cartesian/Newtonian model, which was determinist, reductionist, and linear" (Wallerstein, 2004, p. 158). Complexity theory has contributed to biology (with an organic ecological network model of the universe) deposing physics (with a mechanistic clockwork model of the universe) as the methodological ideal for scientific knowledge towards the end of the 20<sup>th</sup> century (Davis, 2004, chap. 14). At the same time, the advent of postmodern cultural studies in the humanities has challenged the Enlightenment assumption "that there exist aesthetic canons that reflect valid universal judgments about the world of cultural artifacts . . . passed down through the generations" (Wallerstein, 2004, p. 159), and posits instead "that aesthetic judgments are particularist, not universal, and that they are socially rooted and constantly evolving, reflecting social positions and continuing power struggles" (p. 159). In Wallerstein's estimation, these disciplinary innovations converge towards an intellectual common ground, and he suggests that epistemic reconciliation is possible between the natural and social sciences. To find it, however, he advocates a methodological focus on process and the continual changes in social structures that occur over the *longue durée* of history.

Wallerstein's focus on the *longue durée* is derived from the ideas of 20<sup>th</sup> century French historian Fernand Braudel, who criticized the limited focus of traditional contemporary historians on short time spans or discrete historical events as a way to understand the economic history of the modern world (Braudel, 1972). By contrast, Braudel suggested that social historians ought to focus on enduring structures and cycles over longer (multi-century) time frames, an approach he undertook in his own history of early modern global capitalism (Braudel, 1981-1984). Following Braudel, the World-Systems analytical approach that Wallerstein advances takes a broader view of structures in both time and space, postulating that "a single capitalist world-economy has been developing since the sixteenth century and that its development has been the driving force of modern social change" (Hopkins & Wallerstein, 1982, p. 11). As a way to provide a historical context for the contemporary construction of ayahuasca as a policy problem in modern liberal democratic states, I attempt to take just such a *longue durée* perspective by exploring the early modern roots of contemporary drug discourses and systems of control in chapter 3.<sup>21</sup>

<sup>&</sup>lt;sup>21</sup> The importance and relevance of historical knowledge for contemporary policy makers is a foundational principle behind the establishment of the History & Policy project in the United Kingdom (see <a href="www.historyandpolicy.org">www.historyandpolicy.org</a>). As one of the project's founders argues, historical "research insights can add value for those who are grappling with important contemporary problems in health policy and all the many related areas. The historian's knowledge and the

#### 2.2 – Discursive Policy Analysis & Critical Discourse Analysis

The application of discourse analysis to policy studies is an emerging analytical approach that draws on a shift to understanding policy itself as discourse and text (Ball, 1993; Gale, 1999). This shift is a part of a broader trend in the social sciences and humanities during the latter half of the 20<sup>th</sup> century, reflecting awareness that our social, cultural and political realities are to a large degree constituted by language (Hacking, 1999). For the policy analyst, this shift requires moving beyond the naively positivistic and technocratic approaches that have traditionally dominated the field. <sup>22</sup> For decades, policy analysts took a largely empirical approach to their work, which was based on widely held assumptions about the nature of knowledge and the supposed objective, value-free means by which it could be apprehended (Fischer, 1998). The philosophical precept of positivism (discussed above) was among the intellectual foundations of this approach. Consequently, the term neopositivism has been applied as a label for more recent works of policy analysis based on identical or equivalent assumptions "that reality exists and is driven by laws of cause and effect that can be discovered through empirical testing of hypotheses" (Fischer, 1998, p. 143). One of the problems with the neopositivist paradigm is that its "ideal of knowledge as a mirror of the world as something which only reflects what is there but which in itself contributes nothing, is in error" (Fay, 1996, p. 76). In this respect, the purported objective, value-free approach of traditional empiricist or more recent neopositivist policy inquiry is problematic for its methodological blindness to how its application embeds and sustains particular ideological assumptions. With respect to the nascent scientific research on ayahuasca, one of its most significant challenges is to overcome the inherent limitations of neopositivist approaches to understanding the nature of the brew and its effects.

historicist perspectives are valuable precisely because they provide different and challenging intellectual resources to those available from other disciplines" (Szreter, 2009, p. 243; see also Berridge, 2008).

<sup>&</sup>lt;sup>22</sup> This positivist/technocratic history is evident in some early policy analysts' characterization of their activities as a "science" (e.g., Lerner & Lasswell, 1951; Lasswell, 1971), presumably deriving from a sincere belief in their empirical objectivity and methodological rigour, but also implicitly drawing on the rhetorical weight of the term "science" to add epistemological and political force to their arguments and conclusions.

<sup>&</sup>lt;sup>23</sup> Guba & Lincoln (1994) further distinguish positivism, based on empirical verification of hypotheses, from postpositivism, based on falsification as proposed by Popper; however, for the purposes of the present discussion on policy analysis, neopositivism reflects an epistemological position based on either the positivist or postpositivist approach.

For policy studies, an acknowledgement of the socially constructed nature of political reality means that there are no objective facts about human behaviours, activities or events for the policy analyst to discover; rather, one is compelled to accept that all knowledge of this kind is theory-laden and contingent. This situation does not mean that the enterprise of policy analysis must be abandoned, but it does require pursuing alternative lines of inquiry, such as extended reflection on the process of historical change, social construction and the discursive underpinnings of both social knowledge and public policy. One of the leading proponents of such an alternative "post-empiricist" discursive approach to policy studies is theorist Frank Fischer (2003), whose work challenges the predominant technocratic and empiricist models of policy analysis. As Fischer observes,

recognizing the degree to which linguistic symbols structure our understanding of politics is the first step in seeing that political language *is* in important ways political reality itself. As the medium of symbols, it is generally the language about political events, not the events themselves, that people experience. Even the political events that we personally witness take their meaning from the language that portrays them. For both participants and observers there is no other reality. (2003, pp. 56-57, italics original)

Fischer's observation about language and politics corroborates a similar insight that Ball (1993) makes about policy as both a product and mode of discourse, arguing that "we need to appreciate the way in which policy ensembles, collections of related policies, exercise power through a production of 'truth' and 'knowledge', as discourses" (p. 14). The alternative proposed by both Ball and Fischer is a move away from pretensions to positivistic forms of objectivity in policy analysis, and towards a recognition of the importance of language and discourse in knowledge production (at least in the humanistic or social scientific disciplines) and in the construction of policy problems. To this end, the method of critical discourse analysis provides a useful approach for the critical policy analyst.

Critical discourse analysis (CDA) is a research method suited for identifying and critiquing the complex relationships between language and dominant social, political and ideological structures. "Discourse" in CDA refers to language use as social practice, or how language functions to establish identities, social relationships, and systems of knowledge and belief (Rogers, Malancharuvil-Berkes, Mosley, Hui, & O'Garro-Joseph, 2005). As Fairclough puts it, discourse is a means of "not just representing the world, but of signifying the world, constituting

and constructing the world in meaning" (1992, p. 64). Discourses are manifested through texts, or the spoken or written instances of language-in-action; these are the concrete linguistic structures in which social understandings and ideologies are embedded (Hodge & Kress, 1993). By focusing on specific elements of language-in-use, CDA offers a way for researchers to probe texts for underlying philosophical assumptions, ideological commitments and implicit knowledge-power dynamics (Fairclough & Wodak, 1997). According to Luke, "CDA sets out to capture the dynamic relationships between discourse and society, between the micropolitics of everyday texts and the macropolitical landscape of ideological forces and power relations" (2002, p. 100). Thus, CDA is a means by which latent power structures of institutions and society can be rendered more visible, providing opportunities for questioning and challenging the taken-for-granted beliefs of the social and political status quo.

The notion of discourse in CDA is formatively influenced by the work of Michel Foucault, who offered seminal insights into how language is related to both knowledge and power, and how discourses limit or constrain the conditions under which something can be said, and by whom (Foucault, 1991; see also Scheurich & McKenzie, 2005). As Foucault puts it, discourses are "practices that systematically form the objects of which they speak . . . [they] are not about objects; they do not identify objects, they constitute them and in the practice of doing so conceal their own invention" (Foucault, 1972, p. 49). Accordingly, discourses are understood to be inherently ideologically invested: their significations work to constitute and sustain power relationships. However, this is usually an unconscious process; "[d]iscourses are naturalized for individual subjects, who . . . regard their own position as 'common sense' rather than a particular construction of reality" (Locke, 2004, p. 32). However, Foucault's conception of discourse does not negate the possibility of human agency that is presupposed in emancipatory political projects. As he puts it, "discourse is not simply that which translates struggles or systems of domination, but is the thing for which and by which there is struggle, discourse is the power which is to be seized" (Foucault, 1981, pp. 52-53). Within the orders of discourse, there are fissures that allow for resistance to take hold, and CDA is a method by which to identify such fissures.

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<sup>&</sup>lt;sup>24</sup> In a curiously self-referential manner, one might say that, although power has always been embedded in and exercised through the use of language-in-action, "discourses" only came into conceptual existence once they themselves became objects of discourse with the advent of theoretical discussion about them.

Ideologies, with which CDA is centrally concerned, are the basic convictions, philosophical assumptions and axiomatic beliefs that social groups share in creating representations of the world. In this respect, the term ideology in CDA is a relatively neutral descriptive concept and may be distinguished from the more explicitly pejorative senses it may carry in other discursive contexts (just as the word "myth" can be descriptive or pejorative). In the tradition of CDA, discourses and ideologies are understood to be mutually constitutive of one another, inasmuch as "language mediates ideology in a variety of social institutions" (Weiss & Wodak, 2003). However, the political dimension of ideology includes the myriad of ways that meaning is "mobilized for the maintenance of relations and domination" (Thompson, 1990, p. 8). More specifically, "[t]he concept of ideology . . . calls our attention to the ways in which meaning is mobilized in the service of dominant individuals and groups" (Thompson, 1990, p. 73). Ideologies are often opaque, as their deeply held and foundational nature precludes a patent awareness of them. CDA is one way by which ideologies can be rendered more transparent, foregrounding the specific elements of language—such as symbols, metaphors, semantic categorizations, and syntactic constructions—that mediate them.

The "critical" aspect of CDA as a methodology is its explicitly political nature, an embracing of evaluative and normative stances as a constitutive element of its theoretical foundation. CDA works towards political emancipation and ideological awareness, seeking to enlighten and empower individuals, groups or classes who may be unaware of or misled about their own needs and interests (Wodak, 2001). As Locke puts it, "CDA has a role in piercing the opacity of [conventional] arrangements of structural dominance" (2004, p. 32). Furthermore, CDA is implicitly critical of types of inquiry that do not address such matters, or ignore or are otherwise complicit with systems of intellectual or political hegemony and domination (Billig, 2003). As with other forms of critical inquiry, CDA makes no pretensions to neutrality or positivist objectivity (Hammersley, 1997). Indeed, the tradition of CDA is rooted in the "linguistic turn" in the humanities and social sciences, which shifted understanding of language from a medium for conveying pre-linguistic meaning to a system that constitutes meaning itself on its own terms (Locke, 2004). The linguistic turn amounted to a rejection of the metaphoric conception of language as a mirror of the mind (and the mind as a mirror of nature), and instead posited that language (i.e., discourse) constructs, or at least mediates between, both mind and nature (Rojo,

2001). The linguistic turn also emphasized a connection between saying and doing, or the understanding of discourse as a form of social practice. As such, it acknowledged that the use of language both shapes particular socio-cultural structures, and is shaped by them.

In a discussion of critical research traditions in the social sciences (of which CDA is one), Kincheloe and McLaren (2005, p. 304) identify several general assumptions that characterize a "critical" approach. These include assumptions that:

- all thought is fundamentally mediated by power relations that are socially and historically constituted:
- facts can never be isolated from the domain of values or removed from some form of ideological inscription;
- the relationship between concept and object and between signifier and signified is never stable or fixed and is often mediated by the social relations of capitalist production and consumption;
- language is central to the formation of subjectivity (conscious and unconscious awareness);
- certain groups in any society and particular societies are privileged over others and, although the reasons for this privileging may vary widely, the oppression that characterizes contemporary societies is most forcefully reproduced when subordinates accept their social status as natural, necessary, or inevitable;
- oppression has many faces and that focusing on only one at the expense of others (e.g., class oppression versus racism) often elides the interconnections among them;
- mainstream research practices are generally, although most often unwittingly, implicated in the reproduction of systems of class, race, and gender oppression.

As an elaboration on this final point, critical theory in research demands recognizing that power, oppression and hegemony operate in many different domains, including class, race, gender, sexual orientation, culture, religion, colonialism and ability. However, critical awareness also requires flexibility, as forms of hegemony are never static and may emerge in new or different forms. Most relevant to CDA, critical theory contends that coercive power relations in these different domains are often latent and internalized, that they may be concealed in naturalized forms such as everyday social norms and ordinary language.

As a research method fundamentally concerned with language, CDA is also informed by linguistic theory. However, discourse analysis is less interested in the tradition of general linguistics—for example, Chomsky's generative grammar—than it is on contextual linguistics

(i.e., language-in-use, or how language interacts with other disciplines, such as sociology, anthropology or philosophy). The differences between these are important. General linguistics stems most directly from the work of Ferdinand de Saussure, and directs linguists to study language synchronically (i.e., as a complete system at a particular point in time) rather than diachronically (i.e., in historical development). Saussure (1966) distinguished between parole (language in actual use) and *langue* (the abstract system of language that underlies *parole*), arguing that the latter is the most appropriate object of inquiry. Chomsky's generative grammar took a similar approach, emphasizing the importance of abstract linguistic competence over ephemeral linguistic performance. Thus, general linguistics seeks to determine an immanent or cognitively foundational system of grammar, rules underlying how elements of language such as phonemes, morphemes and lexemes can be combined to make meaningful sentences. However, the traditions of linguistic theory on which CDA draws—such as Bakhtin's dialogism and Halliday's systemic functional grammar—are much more concerned with the function of language, and how language works in social and cultural contexts to create meaning (Bloor & Bloor, 2004; Locke, 2004). Halliday's systemic functional grammar focuses on what language does in the world, simultaneously constituting and being constituted by ideologies and sociocultural contexts (Poynton, 2000). This is not to say that systemic functional grammar ignores the sub-sentence aspects of language, but rather that these are always contextualized in a broader social and political frame.

As a research method, CDA is not uniform or homogeneous; rather, it is an inherently interdisciplinary activity that may draw on various theoretical backgrounds and methodological tools (Weiss & Wodak, 2003). For example, even within the broadly-defined "critical" tradition discussed above there are a number of different positions, including orthodox Marxism, the Frankfurt school of neo-Marxism, French post-structuralism, and Habermas' universal pragmatics (Hammersley, 1997). However, practitioners of CDA do not regard the heterogeneity of theories and methodological tools that constitute it as problematic, but rather as something to be embraced. As Luke puts it, CDA is "akin to a repertoire of political, epistemic stances: principled reading positions and practices for the critical analysis of the place and force of language, discourse, text, and image in changing contemporary social, economic, and cultural conditions" (2002, p. 97). This varied approach offers a broad palette from which to draw in

tracing discursive relations between the micro (e.g., particular discursive textual features such as words, syntax, tropes, and conceptual categories) and the macro (e.g., the broader social and political structures that discourses both operate within and form). In this respect, CDA is well suited for application to policy analysis, as public policy is a discursive genre in which power operates both explicitly and implicitly and is thus most effectively approached from multiple theoretical perspectives (Ball, 1993, p. 11).

Issues of drug policy generally, and the Canadian Santo Daime policy decision particularly, are well-suited as textual objects of inquiry for CDA. As Gale observes, policies "are produced discursively within particular contexts whose parameters and particulars have been temporarily (and strategically) settled by discourse(s) in dominance" (1999, p. 405). Although this observation is accurate to some extent for all policies, I will show that this is especially so for illegal drug policies today. My application of the methods I have described—discursive policy analysis and critical discourse analysis—to the Canadian government's deliberations on the Céu do Montreal's request for Section 56 exemption in the public interest is undertaken at a relatively macro level. By this, I mean that I do not engage in a close analysis of the texts I am using as data, such as e-mails, memos and draft Issue Analysis Summaries generated by Health Canada's Office of Controlled Substances. 25 Rather, I develop an extensive historical analysis of the dominant public and political discourses about psychoactive substances that have developed since the early modern origins of the public sphere, in order to show how an ostensibly discrete contemporary policy decision is enmeshed in a much broader web of historically contingent concepts. This critical analysis of public and political discourses (from which policy discourses are derived), requires careful consideration of words—or lexemes in the parlance of linguistics and is one way that CDA can be used to reveal implicit knowledge/power relationships. As Luke (1995) suggests, attention to words in discourses acknowledges the phenomenon of "the construction of 'truths' about the social and natural world, truths that become the taken-forgranted definitions and categories by which governments rule and monitor their populations and

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<sup>&</sup>lt;sup>25</sup> According to a Health Canada webpage, "Frequently Asked Questions: Good Guidance Practices," an Issues Analysis Summary "is a complete summary of the information and analysis gleaned from the issue analysis or guidance development process. It includes an analysis of the issue, the options identified, and the recommended option" (Health Canada, 2007a, section B9). Although explicitly identified as a template for the Therapeutic Products Directorate and the Biologics & Genetic Therapies Directorate, it seems the Issue Analysis Summary format may be adopted by other directorates for other purposes, including by the Office of Controlled Substances for the Daime tea Section 56 exemption issue.

by which members of communities define themselves and others" (pp. 8-9). Despite their ostensibly overt transparency, particular words may sustain ideologies and constrain ways in which people conceptualize an issue (Hodge & Kress, 1993). In chapter 4, I reflect at length on the word "drug," a lexeme whose semantic operation in both public and policy discourses is shaped by significant historical and contemporary ideological forces.

Finally, in light of this theoretical and methodological framing of my work, I will briefly describe the data for my policy analysis and how I obtained it. Canada's *Access to Information Act* was passed in 1983 and provides Canadian citizens with a means to retrieve information in federal government records (Treasury Board of Canada Secretariat, 2010). In February 2008, I submitted requests for access to information to three ministries of the government of Canada: the Department of Foreign Affairs and International Trade, the Department of Justice, and Health Canada. Specifically, my request asked each respective department for

Hard or electronic copies of all texts produced by [your Ministry] between January 2001 and January 2008—written and/or electronic—containing the words "ayahuasca," "Daime," or "Santo Daime"; this includes, but is not limited to: e-mails, memos, research reports, technical reports, literature reviews, strategic policy documents, cabinet submissions, briefing notes, issues notes, letters, and other correspondence.

The response from the Department of Foreign Affairs and International Trade in March 2008 indicated that they had no records related to my request. The response from the Department of Justice in May 2008 included several hundred pages of records; however, virtually all (i.e., more than 95%) of these were redacted and very little actual information was released. The response from Health Canada did not come until April 2009, some fifteen months after I submitted my request. Although the waiting period seemed extraordinarily long, <sup>26</sup> my frustration about the delay was offset by the eventual release of 380 pages of documents, much of which was complete and unredacted. Of course, many pages and some sections of information were

<sup>&</sup>lt;sup>26</sup> The government of Canada has been criticized for its compliance to Access to Information (ATI) requests, including the length of time taken to respond to politically sensitive requests (Roberts, 2002). More recently, this criticism of systemic issues with ATI responses has been substantiated by a special report conducted by the Office of the Information Commissioner of Canada, in which Health Canada received a "D" (or below average) rating for its performance (Legault, 2010). Moreover, in an international comparison with other Westminster parliamentary democracies that have similar freedom of information legislation, Canada was deemed to have the worst performance based on a range of measures, "as it has continually suffered from a combination of low use, low political support and a weak Information Commissioner since its inception" (Hazell & Worthy, 2010, p. 358).

withheld, and I do not know what these contained or specifically why they were deemed unreleasable—according to the *Access to Information Act*, information is exempt from release if it contains personal information, advice or recommendations, consultations or deliberations, plans or positions for the purpose of negotiations, and solicitor-client privilege. Nevertheless, with the documents Health Canada did provide, I felt I had enough information to be able to proceed with my planned policy analysis of the Céu do Montreal Section 56 exemption request.

One final methodological preface is the recognition that, under the aegis of modern academic scholarship, the touchstone for validity of knowledge remains other Western academic text-based knowledge (Smith, 1999). Authorized knowledge for both governments and the academy is prototypically written knowledge, the ideal modern form of which is modeled after the conventions of scientific publication, peer-reviewed reports of empirical studies done in universities and published in academic journals. By engaging in the power structures of such discourses to establish formal authorized knowledge about ayahuasca, academic researchers perpetuate a power dynamic that may be best characterized as epistemic hegemony. Indeed, it is still not the case that entheogenic experiences—or, for that matter, other traditional indigenous forms of knowledge or learning (Battiste & Henderson, 2000; Davis, 2009; Vasquez, 1998)—can validate themselves on their own terms. If it were, the criteria by which the validity of such experiences and the knowledge they engender are judged might be quite different. Both emboldened seekers and skeptical inquirers could be invited simply to "taste and see" for themselves, deploying a particular kind of tool long valued for its capacity to provoke learning and awareness in cultural contexts.<sup>27</sup> In this respect, drawing on the entheogenic experience as a way to know and understand is itself a kind of empiricism, although one quite different from the conventional modern scientific method of probing only the material world in order to better control and manipulate it. I will say more about this in chapter 5, in my discussion about the role of knowledge in modern policy making, and in chapter 6, in my discussion of entheogenic education and psychoactive substances as cognitive tools.

<sup>&</sup>lt;sup>27</sup> Aldous Huxley suggested the "taste and see" empirical means of apprehension in letter to Dr. Humphrey Osmond, dated April 10th, 1953 (Horowitz & Palmer, 1999, p. 30). In a television interview with the BBC in the late 1950s, Huxley said that, in his opinion, university professors—or others with "fixed ideas and a great certainty about what's what"—were the type of people who would most benefit from experiences with psychedelic substances such as mescaline (see <a href="http://www.youtube.com/watch?v=0kraijbaLDo">http://www.youtube.com/watch?v=0kraijbaLDo</a>).

### 2.3 – Epistemic Standpoint

To conclude this chapter, I want to situate myself autobiographically with respect to the topics of ayahuasca, entheogenic education, and public policy. Unlike conventional positivist academic inquiry—which valorizes epistemic norms of disinterestedness, neutrality and objectivity—postmodern social science research, influenced especially by feminist philosophers (Haraway, 1988; Harding, 2002), acknowledges that one's position in the world fundamentally impacts how one perceives, describes and theorizes about reality. Accordingly, in this section I relate some pertinent details of my own epistemic and sociopolitical standpoint as an educational and policy researcher.

I was born in Vancouver and raised in Deep Cove, North Vancouver, the traditional territory of the Tseil-Waututh people, a Coast Salish First Nation. It is a place of temperate coastal rain forests, snow-capped mountains, and ocean inlets, where I had a childhood that benefited from the socio-economic, educational and other privileges of a middle-class Anglo-Canadian family. I knew that religion was not a big part of my parents' lives, although we went to church on a semi-regular basis for several years (which meant Presbyterian Sunday school for me) because my mother liked singing in the choir and persuaded my father that they had an obligation to provide some kind of religious guidance for their children. Unfortunately, I found the Sunday school lessons somewhat lacking, and recall thinking, especially on the nicer sunny mornings, that if there were a God, S/He would certainly be more pleased if I were outside enjoying the beautiful day S/He had created than having to endure the droning of a pathetically earnest woman in a stuffy church basement. I did not understand it as such at the time, but I found greater spiritual meaningfulness in outdoor experiences on British Columbian mountains, beaches and forests than in translations of two thousand year-old texts from the Middle East. When given the choice at age eleven or so, I stopped going to Sunday school classes and church.

The worldview that was really prioritized in my epistemic enculturation, especially through my paternal family, was a scientific (or, more accurately, scientistic) one. My grandfather had been a

pre-eminent Canadian scientist, <sup>28</sup> and my father taught photogrammetry for twenty-five years at the British Columbia Institute of Technology. <sup>29</sup> They encouraged me to engage in critical thinking and thoughtful analysis from an early age, which was helpful for mathematics, science and social studies classes in the local public schools I attended. I showed some aptitude for these fields as a younger child, but I also inherited a love of reading stories from my mother, and was especially engrossed in science fiction as an early teen. Despite their fantastic nature, many of these stories reinforced for me the certainty that mysticism, spirituality and whatnot was mumbo jumbo and nonsense. On the contrary, it was apparent—although I would not have described in such terms at the time—that techno-science fully deserved its present epistemic hegemony and that the progressive narrative of modernity was imminently realizable through neo-liberal socioeconomics and its materialist agenda. I would have acknowledged that there were a few loose ends to tidy up, but science and technology were certain to provide answers to all the mysteries of the universe worth solving, and to provide the means for humans to achieve our manifest destiny of conquering and controlling nature.

With respect to psychoactive substances, especially illegal ones, my knowledge as a child was relatively limited. My first exposures to drugs were *in utero*, as my mother smoked tobacco cigarettes throughout her pregnancy, and during the final trimester was tranquilized with medically-prescribed barbiturates (she later said she could not abide even the smell of alcohol while pregnant, so she did not drink). For my father, whom I remember starting almost every morning with a cigarette and coffee before breakfast, nicotine and caffeine were the primary drugs of choice. Both my parents consumed alcohol at family and social events, although not any way that was discernibly problematic. Despite these predilections, my mother and father did not regard themselves as drug users, a type of person whom they perceived to be deviant and bad. For myself, entering adolescence I had heard of substances like marijuana, heroin and LSD, but naively imagined that these insidious narcotics were mostly to be found in exotic and far-away cities such as London or New York.

<sup>&</sup>lt;sup>28</sup> Kenneth Franklin Tupper, after whom I am named, was an aeronautical engineer, and served as a vice-president for the National Research Council of Canada. He was also the Dean of Engineering at the University of Toronto from 1949 to 1955, where among other accomplishments he purchased and assembled the university's first computer (Friedland, 2002, pp. 374-378; Middleton, 1979).

<sup>&</sup>lt;sup>29</sup> Photogrammetry is a branch of survey engineering that produces three-dimensional models and topographic maps from stereo pairs of aerial or other kinds of photographs.

It turned out, however, that illegal drugs were widely available in my high school and more easily accessible than alcohol, the purchase of which was relatively difficult due to age identification requirements. In my mid-teens, curiosity led me to avail myself of the school-yard contraband that friends and classmates were enthused about, and I had several what I would now describe as entheogenic experiences. As with all mystical experiences, these were ineffably sublime, so there is not much I can specifically relate here. Suffice it to say, however, that both my identity and my faith in the certainties of the received world-view of modern culture were shaken, and the scientific truths that had previously seemed so epistemically luminous were dimmed somewhat in contrast to the effulgent wonders of these newfound entheogenic states of consciousness. Among other things, these experiences ignited (or reignited) a sense of wonder and awe that was no longer being, if it ever had been, stimulated by school lessons, the shopping mall, or the video screen. It could not have occurred to me at the time that I might have been prototypically disenchanted.<sup>30</sup> nor that the forbidden chemical toys my friends and I had discovered were analogous, if not identical, to cultural tools revered for millennia in various traditional indigenous spiritual practices. Although I had no framework or cultural foundation to filter and make sense of such experiences, it did seem abundantly clear that the materialist empiricism of modern techno-science could not adequately account for these new realities. Rather, music, literature and other arts seemed better fields on which to draw in order to assimilate such extraordinary states of consciousness and the insights they engendered.

After graduating from high school, I felt that I needed some time outside the classroom, so decided to spend some time working and travelling. A few years later, I decided to pursue post-secondary education, but disappointed my father by choosing to, as he saw it, squander my future by studying philosophy and literature rather than the eminently more practical fields of science or engineering. I, on the other hand, could think of nothing more worthy of my intellectual attention than the big questions of philosophy, as once the proverbial doors of my perception had been opened, metaphysics seemed a more pertinent area of inquiry than did physics. My undergraduate studies in English literature and philosophy demonstrated both the pitfalls and the power of doing interdisciplinary work. Although superficially similar, as they are both subjects

<sup>&</sup>lt;sup>30</sup> Disenchanted in the Weberian sense (Weber, 1957), discussed in more detail chapter 6.

in the humanities, these respective departments at Simon Fraser University represented polar extremes within what became known as the academic science wars.<sup>31</sup> The Philosophy Department was dominated by Anglo-American analytic tradition, which inculcated an ethic of carefully using language, formal logic, scientific empiricism and deductive reasoning with the aim of finding capital-T "truth." The English Department, on the other hand, largely emphasized postmodern and hermeneutic sensibilities, encouraging the deconstruction of dominant power regimes that substantiate claims to veracity and certainty. At the time, this intellectual tug-of-war was a source of some confusion and unease, but it prompted me to seek a middle ground and to focus on overlaps and commonalities, rather than the defensive territorial staking in which many of my professors were engaged. These academic experiences continue to inform the trajectory of my intellectual pursuits today, including my approach to researching ayahuasca and drug policy, as they broadened my curiosity and appreciation for inquiry across various disciplinary boundaries.<sup>32</sup>

During my undergraduate studies, I was keen to explore the theoretical basis for my youthful experiences with psychoactive substances, but was surprised to find that (at that time, in the early 1990s) psychedelics were generally a taboo topic for academic inquiry. This was most strikingly evident in courses on philosophy of mind and consciousness, where despite its ostensible salience, theorizing about—or even mention of—psychedelic experiences was almost universally absent in both textbooks and classroom discussions. However, my earlier readings about and experiences with psychedelics as an adolescent led to a longstanding, and ultimately academic, curiosity about the cultural uses of psychoactive substances in other times and places. After completing a bachelor's degree and a subsequent post-baccalaureate diploma to teach English as a second language, I taught in private language schools in Vancouver for several years. The opportunity to discuss psychoactive substance use and drug policies with students from around the world gave me an appreciation for the global ubiquity of general ignorance and

<sup>&</sup>lt;sup>31</sup> "Science wars" refers to a conflict that arose in the academy mid-1990s, when scholars with traditional positivist sentiments about the nature of science and those with more relativist postmodern perspectives engaged in an ongoing and heated series of debates about the nature and culture of scientific theory and practice (Fuller, 2006).

<sup>32</sup> My more recent academic experience of living a year and a half at UBC's Green College further helped me appreciate the value of being willing and able to cross academic disciplines. Founded by alumnus Cecil H. Green with a mandate to foster interdisciplinarity by cultivating academic and creative connection in communal residence, Green College provided rich opportunities for cross-fertilization of ideas among students, professors and visiting academics from different faculties, including mealtime conversations that regularly expanded intellectual horizons.

misinformation about these topics. These teaching experiences also impelled me to think more deeply about education, the cultural foundations of knowledge, and the relationships between language and thought.

It was at this time, in the mid-1990s, that I first learned of ayahuasca from reading Terence McKenna's *Food of the Gods* (1992) and Wade Davis's *One River* (1996). When after a few years of teaching I decided to apply for graduate school, I proposed as a research topic an exploration of the traditional indigenous metaphor of plant teachers, and how in some contexts psychedelics or entheogens might be educationally beneficial. I was as surprised as anyone that Simon Fraser University's Faculty of Education admitted me into their Master's program and encouraged me to proceed with that project. During the course of my studies, a university fellowship award provided an opportunity for me to visit Brazil and drink ayahuasca with the Santo Daime. I was utterly astounded, humbled and awed by the effects it had on my body, mind and spirit, and became even more convinced that the notion of entheogenic education had validity and importance in the early 21<sup>st</sup> century. I ultimately completed a thesis on this topic and published two peer-reviewed journal articles based on sections of it (Tupper, 2002a; 2002b; 2003).

After completing my Master's degree, I thought I had finished with academic engagement on the topic of entheogenic education, and in 2003 I applied for admission to a Ph.D. program in Educational Studies at the University of British Columbia with the intention of studying the potential role of harm reduction in school-based drug education curricula (from which work I did publish two papers: Tupper, 2008a; Tupper, 2008b). However, my acceptance in the doctoral program was complicated by an unexpected offer of concurrent employment at British Columbia's Ministry of Health to work in the fields of population health and drug policy. It was certainly not my intention to attempt a Ph.D. degree on top of a full-time management position in government, but supportive supervisors encouraged me to do so and I continue to work there today as Director, Problematic Substance Use Prevention. Although I had little prior

<sup>&</sup>lt;sup>33</sup> Although it may be obvious, it is prudent for me to declare explicitly here that the ideas explored and conclusions reached in my academic work are solely my own and do not necessarily reflect the beliefs or policies of the Government of British Columbia. However, I do gratefully acknowledge receipt of a provincial Pacific Leaders Scholarship award in 2009, which assisted financially in the completion of this research project.

knowledge about or interest in public policy, the learning afforded through my work experience in government—which included an opportunity to participate as a member of the Canadian delegation to the 2009 United Nations' 52<sup>nd</sup> Session of the Commission on Narcotic Drugs—has been invaluable for my academic research interests.

However, it was further experiences with ayahuasca that inspired me to consider a research direction that followed up on my earlier academic work. At the most fundamental level, my research questions are a function of my experiences with ayahuasca, which have generated all manner of metaphysical and epistemological reflections—a not uncommon reaction among those who have drunk the brew (Shanon, 2010, p. 269). After gaining some further personal experience, I felt called to focus my doctoral studies on issues relating to the public policy implications of its increasing use beyond the Amazon. This dissertation is the fruit of my decision to act on this inspiration, which I regard as a testament to the power of psychedelics or entheogens to kindle the academic research imagination as much as other kinds of creativity.

# Chapter 3 – Ayahuasca as Policy Issue in the 21st Century

Over the past several decades, ayahuasca drinking practices have emerged from the Amazon and entered into a complex geopolitical and sociological landscape that shapes the way people and governments perceive, understand and respond to psychoactive plants and substances. This landscape is a function of myriad historical forces that reach back into antiquity, but which coalesced over the past several centuries into a widely accepted—although, as I will argue, in many ways conceptually flawed—global ideological structure, the drug war paradigm. On the one hand, a refined capitalist economic system exploits some kinds of plants or their derivatives, such as cacao, coffee, tea, tobacco and fermented and distilled alcoholic beverages, and attempts to maximize their production and consumption (and ultimately shareholder profits) through cheap labour, commercial innovations and sophisticated marketing efforts. On the other hand, plants with not greatly dissimilar psychoactive properties and historical traditions of use, such as coca, cannabis and opium, are demonized and prohibited by a forcefully punitive international drug control system. Around the world, most states have ratified and rigidly adhere to international conventions intended to restrict the use of the latter substances to only authorized medical or restricted scientific purposes, and to enact a two-pronged response of demand reduction and supply reduction in order to restrict or eradicate the substances themselves, and to eliminate their non-medical uses. It is within this policy context that the different types of ayahuasca drinking practices—including the Brazilian ayahuasca churches, cross-cultural vegetalismo, psychonautic, and hybrid therapeutic practices—are variously positioned for legitimacy.

The particular focus of my research is on the policy implications of the Santo Daime's emergence and expansion in Canada; however, as ayahuasca drinking becomes an increasingly transnational socio-cultural phenomenon, other states face legal or policy questions of a similar kind. Many of these are likewise centered on the religious practices of the Santo Daime or União do Vegetal, but ayahuasca drinking in less overtly Christian or entirely non-religious forms is equally or even more common and is thus a confounding factor in a comprehensive policy deliberation. From a critical analytical perspective, these factors add further complexity to ayahuasca drinking as a policy problem, especially when informed by an appreciation of

entheogenic education, the details and relevance of which I outline in chapter 6. However, in this chapter, I explore the ways in which particular contemporary policy challenges arising from the globalization of ayahuasca—for governments in countries such as Canada, the United States, and a number of European states—are a function of broader historical, social, economic and political contexts of human psychoactive substance use and, over the past century, the establishment of a robust regime of international drug control. To this end, I endeavour to trace a history of drugs and drug policy by identifying some of the key forces—including religious, medical, criminal justice, and neo-liberal capitalist interests—and contingent historical moments in the development of the modern drug war paradigm.

The story begins with the earliest forms of psychoactive substance use and significant subsequent modifications to such practices that occurred through various pre-modern cultural and technological developments (with a particular focus on literacy). It continues with some extended reflection on the role that psychoactive substances played in the advent of modernity, and especially key moments in the development of science, the mass media and liberal governance in the 17<sup>th</sup> and 18<sup>th</sup> centuries. This, in turn, leads to discussion of how professionalization in medicine, education and policing in the 19<sup>th</sup> century contributed to discursive conditions for the establishment of prohibition as the imperious political response of the early 20<sup>th</sup> century, and its subsequent global expansion into today's regime of international drug control. This historical overview will provide the basis for the following chapter's detailed discursive analysis of the contemporary drug war paradigm, the overarching ideological frame for current drug control efforts from which departure is extraordinarily difficult and which has significant implications for understanding ayahuasca as a policy problem.

## 3.1 – Pre-modern Psychoactive Substance Use

It must not have been long after the emergence of consciousness itself that our primordial human ancestors began to demonstrate an enduring proclivity to alter it (Winkelman, 2010). As one commentator puts it:

The desire to experience some altered state of consciousness seems to be an intrinsic part of the human condition, and the persistence that people have shown in pursuit of this goal

is as remarkable as the diversity of ways in which they have sought such altered states. (Gossop, 2007, p. 207)

Admittedly, the term "altered state of consciousness" (Tart, 1969), is to some degree problematic, inasmuch as it assumes a single "normal" state of consciousness from which all others are deviant, implicitly denying the varieties of consciousness one may experience from moment to moment in typical diurnal routines (Warren, 2008). Thomas Roberts has termed this modern belief the "singlestate fallacy," or "the erroneous assumption that all worthwhile abilities reside in our normal awake mindbody state" (2003, p. 36). By contrast, most human cultures in various times and places have cultivated one or more practices among a panoply that induce highly valued individual and collective visionary or trance states, including dancing, drumming, fasting, chanting, praying, meditation, sensory deprivation, exposure to extremes of temperature, and body modification (e.g., scarification or piercing). Of these various techniques, one of the oldest and most common is the ingestion of fungal, plant or derivative chemical agents (Siegel, 2005). For tens of thousands (if not hundreds of thousands) of years, virtually all societies have availed themselves of at least some of the psychoactive flora and fungi in their surroundings.<sup>34</sup>

How long psychoactive substance use has been part of the behavioural repertoire of *Homo* sapiens is unclear, although ethological evidence of the consumption of psychoactive substances among a variety of animal species indicates that it extends far back in our evolutionary history (Dudley 2002; Samorini, 2002). Archaeological evidence and continued use of a variety of psychoactive plants among today's few extant hunter gather societies also suggests a long and extensive tradition of humans ingesting various substances to stimulate, sedate, palliate and elate themselves (Escohotado, 1999; Hayden, 2003; Rudgley, 1994; Walton, 2001). And although contemporary drug policy attempts to control drug use by limiting it to medical and scientific purposes, non-medical use seems to have been the norm rather than the exception over time; as Sneader notes, "archaeologists have found more evidence of drugs used for social and recreational purposes than those selected as medical substances" (2005, p. 9). Despite the

<sup>&</sup>lt;sup>34</sup> Andrew Weil's (1972) cross-cultural research on psychoactive substances suggests that the Inuit are the only human culture that did not have a tradition (prior to European contact) of altering consciousness with psychoactive substances of some kind, likely simply because they did not have any psychoactive flora in their environment suitable for such purposes. However, Durrant & Thakker (2003) also report that the indigenous Maori peoples of New Zealand did not use any psychoactive substances prior to European colonialism.

modern tendency to pathologize non-medical drug use (Nesse & Berridge, 1997), there is equally good reason to believe that the uses of psychoactive substances by *Homo sapiens* has been an adaptive behaviour whose benefits outweighed its costs (Hagen, et al., 2009). Examples of possible evolutionary benefits include the promotion of social bonding, natural selection for advantageous traits such as risk taking, impulsivity, novelty seeking, pattern recognition, and perhaps the development of spiritual beliefs, religion and language itself (Furst, 1976; McKenna, 1992; La Barre, 1972; Wasson, Kramrisch, Ruck & Ott, 1986).

Subsequently, particular human cultural developments have been marked by concomitant historical changes in the patterns, benefits and risks of psychoactive substance use, although current policy approaches seem to be largely oblivious to such distinctions. Although its origins reach well beyond the historic and archaeological record, ritual may be among the earliest of these (d'Aquili, Laughlin & McManus, 1979; Winkelman, 2010). Contextual protocols of ritualized drug use may be characterized as a form of proto- harm reduction, 35 whereby the inherent unpredictabilities of altered states of consciousness are mitigated by specific timehonoured cultural practices. The Neolithic revolution, and the advent of domestication of plants and animals as food sources between 10,000 and 8,000 BCE, precipitated another important shift in human psychoactive substance use. Among the earliest cultivated plants were opium, cannabis, and grapes and hops (for fermented wine and beer), all of which were used for assorted social, spiritual, medical and other purposes. The similarities, overlaps and distinctions among the historical and cross-cultural social constructions of foods and drugs are important aspects of an informed account of human psychoactive substance use. Indeed, both foods and psychoactive substances "being perishable and constantly consumed, . . . must be constantly produced, so that they are continuing elements of the relations of production and distribution: a continuous flow around the networks of exchange" (Sherratt, 2007a, p. 14). Even more than their economic importance, however, these commodities express significant values, meanings, and symbolisms when in consumed in specific cultural contexts.

<sup>&</sup>lt;sup>35</sup> I describe such early psychoactive substance use practices as "proto- harm reduction" because the idea of attempting to reduce anything other than supply or demand for currently illegal drugs was anothema to most policy makers until the advent of health policy shifts in the 1980s precipitated by the spread of human immunodeficiency virus, or HIV. I discuss the late modern history of harm reduction and how ritual may be considered an archaic form of it in more detail in chapter 6.

An important factor in the sociological trajectory of psychoactive substance use arising from the shift from hunter-gatherer to agrarian societies was the settlement and expansion of human populations, which was accompanied by the creation of hierarchical societies (Wright, 2004). Prior to farming and animal husbandry, almost every member of a society (except for perhaps the very young and very old) played a role in the daily acquisition of food. With the domestication of plants and animals, food surpluses and storage allowed for new social and economic hierarchies (Wells, 2010). Most notably, novel religious and political classes—such as priests, medical practitioners and civic administrators—inaugurated specializations in spiritual leadership, healing and governance that, among other things, represented a significant turning point in how psychoactive substances, their symbolic meanings, and their cultural uses could be controlled. The traditional social role of the shaman seems to have been correlated primarily with the hunter-gather mode of socio-economic organization (Halifax, 1979; Winkelman, 1990). Thus, after a society's means of food production shifts to agrarianism, the integrated role of the magico-religious healer, or shaman, is divided into new discrete specialties of physician and priest.<sup>36</sup> Among the economic correlates of such specialization was the development of a social hierarchy that, in turn, created conditions for the development of writing and important new trajectories for psychoactive substance use.

Writing and reading were a revolutionary human technological development that occurred in several cultures around 3000 BCE (Olson, 1996). For Russian psychologist Lev Vygotsky, whose theory of cultural-historical psychology informs the concept of entheogenic education discussed in chapter 6, the "basic discovery . . . that one can draw not only things but also speech" (Vygotsky, 1978, p. 115) was a monumental innovation for subsequent human culture, the development of a prototypical example of what he described as a cognitive tool. Literacy marked a departure from earlier forms of human knowledge transmission, which had depended on the capacity of individuals to memorize and recite information orally (Donald, 1991). In historically non-literate cultures, where shamanic practitioners are predominantly holders of spiritual wisdom and medicinal knowledge, specialized understandings of the ritualized use of psychoactive substances are commonly passed along through familial lines or apprenticeship

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<sup>&</sup>lt;sup>36</sup> Or it was at least until the recent New Age revival of shamanic-type practices in postmodern cultural contexts (Narby & Huxley, 2001; Znamenski, 2007).

relations (Eliade, 1964; Winkelman, 2010). After the development of literacy—when time and space no longer imposed the same kinds of limitations on transmission of thoughts and ideas—esoteric knowledge about the preparation of psychoactive compounds could be codified in formulas, recipes, apothecary preparations and other exoteric forms.<sup>37</sup> Thus, in addition to literacy precipitating more general changes in human cognition and understanding of thought (Goody, 1987; Olson, 1996; Ong, 1982), it also shifted how psychoactive substances could be known about and used. The theme of literacy and written knowledge is an important one for a robust account of modern conceptions of drugs and the contemporary regime of drug control, which I will explicate below.

As the technology of literacy spread, some ancient traditions of psychoactive substance use were lost or transmuted into allegorical forms, such as the deified substance *soma* in the Indo-Aryan Rig Veda texts (Pande, 1984; Wasson, 1968), the kykeon sacrament of the Eleusinian mystery religion in ancient Greece (Wasson, Hofmann & Ruck, 1978), or the anointing oils infused with kaneh-bosom (i.e., cannabis) in early Semitic religious practices (Benet, 1975). Nevertheless, as Hillman (2008) reports, early literate cultures such as the Hellenistic Greeks and ancient Romans produced a voluminous quantity of written records on the preparation and use of a variety of both medical and non-medical psychoactive substances. In ancient Greece and Rome, using or being under the influence of strong psychoactive substances did not carry the stigma it does in Western culture today, and it was a commonly accepted practice to imbibe wine and/or other intoxicants for symposia, religious festivals, celebrations, and the like (Rinella, 2010). In reference to pre-Socratic philosophers and the likely influence of psychoactive substances on their thinking, Hillman suggests: "the handful of early Greek thinkers whom we remember today just didn't fit any particular mold in their time; they occupied a historical limbo, somewhere between the world of the future philosopher and that of the past shaman" (2008, p. 174; see also Emboden, 1977). Thus, the shift from orality to literacy in early Western culture may have been a contributing factor in a gradual change of attitude towards the use of psychoactive plants, whereby the value of shamanic types of altered states of consciousness was supplanted by a

<sup>&</sup>lt;sup>37</sup> Note that under modern drug control regimes, much psychoactive substance use is authorized and legitimated by a "prescription" (etymologically derived from the Latin word *scriptum*, or written text).

spiritual hegemony of more subdued, textually-oriented forms of religious practice that succeeded them.

Both written records and other evidence from the ancient Mediterranean indicates that the preferred psychoactive substance at the time was unquestionably fermented alcohol in the form of wine, the production and consumption of which was an integral aspect of social, economic and religious life among all strata of society (Purcell, 1985; Unwin, 1991). From heady Athenian symposia (a word etymologically derived from the Greek roots for "drinking together") to enthusiastic Dionysian and Bacchanalian revelries, wine was both a social lubricant and a means to achieve primary mystical experience through the induction of ecstatic states of consciousness (Dodds, 1951; Rouget, 1985). In Plato's last dialogue, Laws (in Book II) (Plato, 1892) wine is lauded for its educational benefits for older adults (when consumed under supervision), as "it gives them, temporarily, the 'mad' qualities of young children that are conducive to education by the Muses" (Belfiore, 1986, p. 426). However, the occasionally alcohol-inspired telestic madness that Plato identified as beneficial was not universally tolerated by authorities in the ancient world, especially when it was under the aegis of an unorthodox religious movement. The execution or expulsion of the Bacchae (worshipers of Bacchus, the Roman god of wine) by a Roman Senate decree in 186 B.C.E. was an early example of state repression of religion (Benko, 1984), and arguably deployed persecutory tactics prototypical of the modern drug war (Escohotado, 2010). It is worth noting that wines in ancient Greece were sometimes also infused with other psychoactive plants, such as opium and wormwood (Artemisia absinthum L.) (Rinella, 2010, pp. 5-8).

The rise of Orthodox and Roman Catholic Christian traditions, which subordinated primary mystical experience to adamant faith in text-based doctrines, left earlier classical bacchanalian forms of worship cast with a diabolic pall that reverberated in the historical record of these practices for millennia (Ott, 1997). While contemplative traditions endured in these and the other dominant monotheistic faiths (i.e., Judaism and Islam), none of them tolerated entheogenic practices incorporating visionary plants. Indeed, after the Roman Empire was succeeded by the Roman Catholic Church, and for the next thousand years in most of Europe, psychoactive substance use was largely limited to fermented beverages such as wine, beer, cider and mead,

which were often produced in abbeys and monasteries (Nelson, 2005). However, even after literacy had become well established as a cultural tool for the religious, political and cultural elite in Europe—and alcohol the predominant intoxicant—residual forms of shamanic-type knowledge about psychoactive plants continued to be passed along in vernacular oral traditions up to the early modern era (Schultes & Hofmann, 1992). However, these unorthodox practices were typically branded as witchcraft and often brutally suppressed, as I discuss further below.

While herbalist practices sustained archaic and subaltern oral traditions of psychoactive substance use in medieval Europe, Arabic clerics and scholars were actively studying and translating classical Greek texts that remained largely unknown to Europeans until the 15<sup>th</sup> century (in particular, after the fall of Constantinople and the Byzantine Empire in 1453). The importance of this for subsequent developments in modern culture arises from the Arabic intellectual and practical investigations on the nature of matter, which ultimately evolved into the scientific discipline of chemistry (Greenberg, 2007). The art and philosophy of alchemy sought, among other things, to discover the philosopher's stone (which it was believed would transmute base metals into gold or silver) and the elixir of life (a panacea for curing illness and achieving immortality). In the search for such an aqua vitae, Arab alchemists in the 12th century perfected distillation as a technique of producing almost pure ethyl alcohol (Moran, 2005). This discovery, more than any other, marked a turning point in the human interface with psychoactive substances, as it heralded the advent of an era in which the chemically active components of naturally occurring substances could be extracted, refined, purified and rapidly consumed. Thus, the alchemists' innovation of alcohol distillation established a precedent of applying human ingenuity to the material world in a way that could refine psychoactive substances into products that concentrated their potency and thereby increase their potential impacts on physical and psychological health. However, the management of the social, economic and political effects of the extension of this kind of knowledge has proved to be an enduring challenge.

The interpenetrations among literacy, alchemy and psychoactive use became even more acute after the rapid duplication and dissemination of texts was made possible in the early 15<sup>th</sup> century with the invention of the movable-type printing press by Johannes Gutenberg. The adaptation of the technology of printing was one of the most significant moments marking the advent of

modernity—the period of change in Euroamerican intellectual, political, religious and economic thought that spawned not only the international drug control regime, but also the modern institutions of science, capitalism and the concept of the public sphere. However, more obscured in conventional knowledge about this period has been the role that psychoactive substances played in the establishment of the public sphere and the discourses informing these modern institutions. The introduction of exotic foreign psychoactive plant brews and the drinking practices surrounding them, combined with an emergent commercial press in the 17<sup>th</sup> century. stimulated a cognitive and cultural upheaval that established the socio-political conditions that make avahuasca's emergence from the Amazon in the 21<sup>st</sup> century so politically challenging in Canada and elsewhere. In the next section, I show how coffee, tea and cacao drinking—and the concomitant consumption of sugar, one of the other "drug foods" entering Europe in the mid-17<sup>th</sup> century (Mintz, 1985)—complemented tobacco use in 17<sup>th</sup> century England to become the substance use-based nexus for an unprecedented cultural transformation, a sociopharmacological cocktail that set the foundations for liberal democratic forms of governance. law and public opinion (Lemmings, 2009). These, in turn, formed the dominant political discursive terrain that evolved over the next three hundred years, culminating in an international drug control regime philosophically and politically unprepared to accommodate another, much different, plant brew.

### 3.2 - Psychoactive Substance Use in Early Modernity

The political responses to the growth in ayahuasca drinking beyond the Amazon at the turn of the 21<sup>st</sup> century are, in part, a function of a complex web of historical contingencies involving the cultural and economic ingress of new psychoactive substances to early modern Europe. While more proximal events in modern drug policy history—those of the 19<sup>th</sup> century, discussed in the next section—are important historical context for identifying early discursive trajectories in public and policy discourses, recent scholarship suggests that the early modern period, between the 15<sup>th</sup> and 18<sup>th</sup> centuries, deserves equally close attention. Many of the defining philosophies and institutions of today's world—including nation-states, liberalism, colonialism, scientism, news media, and the concept of the public sphere—were established during this time, with the adoption of new psychoactive substances playing an important role in their development.

When the Protestant Reformation was incited in 1517 by Martin Luther's public posting of his 95 theses for church reform, the expansion of the printing press had established a technological means for the rapid and widespread dissemination of both Luther's heretical ideas and new vernacular translations of the Bible, which fomented a series of sectarian wars across Europe for the next 130 years. One of the effects of this was a sense of the mutually constitutive relationship between language and national identity, which empowered both the clergy and the state in different regions to theorize, and communicate publicly, in their native tongues, which in turn was an important means of European imperial and Christian evangelical efforts abroad (Anderson, 1991). The Reformation was both a religious and political crisis for the denizens of the early modern public sphere, as it established a sudden and irreconcilable rift between generations in many places, and provoked radical tensions between private spiritual belief and public adherence to dogma. As Habermas put it, "the status of the Church changed as a result of the Reformation; the anchoring in divine authority that it represented . . . became a private matter" (1962/1989, p. 11). In England, in particular, monarch Henry VIII's break from the Roman Catholic Church in 1534 and self-appointment as head of both church and state had political and intellectual ramifications in the following century, when public discourses in London coffeehouses precipitated new ideas about religion, science and governance that held rationality as an essential means of mediating between public and private interests.

The challenge to religious authority advanced by Martin Luther was not the only destabilizing crack in the epistemological and political foundations of early modern European culture. Copernicus's description of a heliocentric universe upset the long-standing orthodox Ptolemaic world view and the orthodox *scala naturae* (or "great chain of being") of medieval Christian cosmology it supported. Optical instruments such as the telescope and microscope provided ways to observe things at new scales, and ingenious mechanical devices such as clockworks provoked new ways to measure time and a revolutionary metaphor for understanding life and the natural world (Shapin, 1996). Classical Greek and Roman texts, some introduced to the West for the first time after the fall of the Byzantine Empire, inspired new ideas about philosophy, art, and humanism that became known as the Renaissance. Around the same time, and particularly important for a history of modern psychoactive substances use, maritime voyages to new lands and colonies in the east and west "Indies" brought to Europeans knowledge of new kinds of

ideas, commodities, and behaviours (Matthee, 1995); once it was determined that these were whole continents unknown to the Ancients, inhabited by exotic peoples with strange but enticing uses of local plants,<sup>38</sup> the epistemic bedrock of ecclesiastical and scholastic authorities was further shaken (Greenblatt, 1991).

Tobacco was one of the first psychoactive plants to which Europeans were newly introduced through their colonial enterprises, and it was accompanied by a novel route of administration: smoking.<sup>39</sup> Tobacco (both *Nicotiana rustica* L. and *Nicotiana tabacum* L.) in the so-called New World had been variously smoked, snuffed, eaten, and used in enemas for shamanic and other cultural purposes since at least 3000 B.C.E. and was widely distributed across much of North, Central and South America by the time of Columbus' arrival in the late 15<sup>th</sup> century (Goodman, 1993). Although the Spanish conquistadors initially rejected tobacco smoking as a clear example of native diabolism, French and English voyagers had somewhat different relations that fostered inter-cultural curiosity. They introduced the practice of smoking to their respective homelands and within a few centuries to the rest of Europe, the Middle East, Africa and Asia. Spanish authorities reversed their antipathy to the plant after Roman Catholic clergymen began snuffing tobacco, and soon Spain competed with England and the Netherlands for its share of the burgeoning international tobacco market (Gately, 2001, pp. 20-36). The economic importance of tobacco to European colonialism, in particular, is evident in the degree to which agricultural production of the plant was integral to the establishment of fledgling American colonies. Venezuela and Cuba became the largest tobacco producing colonies in the Spanish empire, and the English colony of Virginia had an equivalent status, where tobacco exports increased from 1.5 million pounds in 1640 to over 38 million pounds in 1700 (Gately, 2001). Neither Protestant nor Catholic religious doctrine proved a significant barrier to tobacco's uptake in Europe, although its status as a quotidian sumptuary commodity in early modern economies stood in

<sup>&</sup>lt;sup>38</sup> Unfortunately for North, Central and South American indigenous peoples, in return the Europeans brought mostly death, disease, and cultural destruction (King, Smith & Gracey, 2009; Stannard, 1992). Under the tragic conditions of colonialism, the introduction of distilled alcohol to indigenous peoples of the Americas exacerbated their psychospiritual, economic and sometimes geographic dislocation (Alexander, 2008; Mancall, 1995), and contributed significantly to establishing alcohol-related health and social problems that still burden them today (Grant, Dawson, Stinson, Chou, Dufour & Pickering, 2004; Health Canada, 2009a, p. 22).

<sup>&</sup>lt;sup>39</sup> Although the custom of inhaling smoke was not adopted by Europeans until the introduction of tobacco in the 16<sup>th</sup> century, it was practiced much earlier in parts of Africa and the Middle East as a way of using cannabis (Philips, 1983; Gately, 2001), and was reported by Herodotus in accounts of enclosed cannabis smoke-baths by Scythians as early as 450 B.C.E. (Russo, 2007).

relative contrast to the more explicitly sacred role the plant had in the cosmovision of American indigenous peoples (Pego, Hill, Solomon, Chisholm, & Ivey, 1995).

Tobacco use was well integrated into the social and economic spheres of European life by the 17<sup>th</sup> century, when novel drinks made from the beans or leaves of coffee, tea and cacao plants—which all contain stimulant alkaloids called methylxanthines (hence the term xanthinated beverages)—were introduced across the continent. These new psychoactive commodities were eagerly received by urban elites, and the general public soon after. Xanthinated beverages exploded in popularity in 17<sup>th</sup>-century Europe, and their consumption (accompanied by copious amounts of refined sugar, another popular new luxury aliment (Smith, 1992)) was an integral material component of the establishment of many key institutions of the modern public sphere, nation state and global capitalist system. For example, nascent English stock market and insurance trading activities were conducted in London coffeehouses (Cope, 1978; Jamieson, 2001), and the public discourses associated with these venues represented a new socio-political trend in which commoners presumed to concern themselves with affairs of the state and crown. As such, this innovation in psychoactive substance use, the new social practices and institutions based on xanthinated beverage consumption, is an integral part of understanding the roots of today's international drug control regime and underlying drug war paradigm.

Habermas (1962/1989) famously identified the coffeehouse of London in the 17<sup>th</sup> and 18<sup>th</sup> centuries as a defining space for the nascent bourgeois public sphere. However, historian Brian Cowan (2005) has delved more deeply into the role that xanthinated beverages played in the intellectual, cultural, political and economic changes of the period. Cowan relates how a leisured class of Renaissance virtuosi—learned men with an intense passion for acquiring foreign knowledge, art, antiquities and curiosities—brought the Turkish social practice of coffee drinking to urban centres such as London in the 1650s. Among their bourgeois predilections for collecting, categorizing and theorizing about things strange and unfamiliar, which they often displayed in cabinets of curiosities and wonders (Daston & Park, 1998), were tastes for the new xanthine-infused beverages coming from faraway ports such as Mocha, Canton and Caracas. The virtuosi were among the vanguard of a new kind of natural philosopher who often worked outside the university establishment and prided themselves in heeding Francis Bacon's call for

the adoption of a systematized approach to knowledge production. The direct intellectual forebears of today's scientists, the virtuosi were the social nexus for changes in the collective consciousness, behaviours and enduring institutions of the emerging Euroamerican bourgeois public sphere.

The relationship between the virtuosi's consumption of xanthinated beverages and the development of modern science as an authoritative public and political institution is best seen through a focus on how ideas about knowledge and power were rapidly changing in the 17<sup>th</sup> century. In his 1627 utopian philosophical treatise *New Atlantis*, Bacon had envisioned "Solomon's House" as the fictional ideal of a new kind of program for collecting, organizing and utilizing knowledge of the natural (and preternatural)<sup>40</sup> world, one which would not be mired in the bloodily fractious theological conflicts that were erupting in Europe at the time. By the time coffeehouses were being established in Oxford and London, several decades after Bacon's project was articulated, among their earliest and most enthusiastic patrons were the virtuosi, who had the ambition of realizing Bacon's vision through new modes of experimental practice, empirical observation, mathematical calculation and public discourse (Shapin, 1996). The public and social nature of their approach to detailing and sharing the particulars of natural philosophy was most evident in the coffeehouse, which provided both the egalitarian interdiscursive space to meet like-minded aficionados and the desired atmosphere of civility that was emerging around these new kinds of discursive interactions (Cowan, 2005).

The common sobriquet "penny universities" captures the egalitarian, educational and capitalist importance coffeehouses had at the time (Aytoun, 1956; Topik, 2009). In contrast to actual universities, where the pedantic scholasticism of the medieval era still maintained a powerful intellectual hegemony, in the late 17<sup>th</sup> century, London coffeehouses were important venues for virtuosi to share among themselves and to demonstrate to lay aficionados experimental discoveries generated through the new Baconian approach to knowledge production (Shapin, 1988). Moreover, the cost of participating in such stimulating and cutting-edge educational discourses was merely the price of a cup of coffee, which all but the most abjectly impecunious

<sup>&</sup>lt;sup>40</sup> In early modern European cosmology, the preternatural "constituted a distinct ontological category . . . suspended between the mundane and the miraculous" (Daston & Park, 1998, p. 14) and provided an intermediate conceptual stratum for unusual occurrences that did not require a suspension of God's ordinary providence.

could afford. Natural philosophers were still meeting in coffeehouses in London well over a century later to publicly report or demonstrate their latest empirical discoveries (Lever & Turner, 2002), before "scientists" began professionalizing in the 19<sup>th</sup> century and were co-opted by universities (and more recently, corporations).

The London virtuosi in the latter 17<sup>th</sup> century established the normative rules under which not only Baconian natural philosophy, but also affairs of the state, mercantile trade, foreign correspondence, and other "news" were to be shared and discussed. These rules of civil engagement did not depend on social status, or religious or political affiliation, but rather on polite, reasoned reflection. Importantly, such norms were esteemed and modeled by courteous patrons of coffeehouses (from both well-to-do and aspiring lower-middle classes) under the stimulating influence of xanthinated beverages. In explicit contrast with the raucous, bawdy social milieu of the late medieval tayern or alehouse (Martin, 2009), the "sober" discourse of the coffeehouse established an early model for modernity, civility and intellectual progress (Cowan, 2005, pp. 44-47). Indeed, the coffeehouse's distinction from the alehouse demarked a crucial discursive line between sobriety and inebriety (especially in the 19<sup>th</sup> century, when these became powerful rhetorical devices for leaders of the temperance movement). Yet, despite their function as antithetical concepts in emerging discourses on public behaviour, the conditions of both inebriety and now sobriety were now associated with the consumption of psychoactive substances (alcohol and xanthinated beverages, respectively). Moreover, I hypothesize that the psychopharmacological properties of the xanthinated beverages—and their effects, not just on individuals, but on the growing sub-population of regular drinkers—were a central, yet underappreciated, component of the social, political, intellectual and economic revolutions being wrought at the time.

The conditions that allowed maritime merchant capitalists from early modern Europe to reliably traverse the globe and thereby profit handsomely from the burgeoning trade in foreign psychoactive substances also created unprecedented means and opportunities for transmitting information about these substances, as well as many other things, among new discursively-constructed publics such as the virtuosi. By mid-17<sup>th</sup> century, the broader use of the printing press and a corresponding rise in vernacular literacy helped to create a viable commercial market

for printed texts and representations of all kinds, including maps, music, art, poetry and prose. Travel writing, merchants' records, political missives, eyewitness reports and personal letters were compiled and sold in printed periodical news broadsheets and handbills, creating new concepts of public authority and factuality (Poovey, 1998), and establishing the economic value of information itself as an early modern commodity (Sommerville, 1996). By the early 18th century, newspapers had become "a major forum for the formation of public opinion and one of the main channels through which public opinion could be expressed" (Barker, 2000, p. 23).

Not coincidentally, purveyors of such innovative forms of commodified information as newspapers found coffeehouses to be among the most reliable and lucrative marketplaces, where patrons eagerly sought to acquire and discuss the latest news on political, intellectual, economic and social matters. However, in England and across Europe, courts were concerned about their common subjects' meddling in the affairs of state through the production and consumption of news. In some cases, such as in post-Restoration London, monarchs attempted to stop what they regarded as seditious activity by attempting to outlaw coffeehouses; however, the information channels of the new public sphere were also becoming increasingly valuable to the state, as rulers found that such new forms of knowledge could serve their purposes as well (Cowan, 2005). In any case, through the new print media-saturated environments such as coffeehouses in the late 17<sup>th</sup> century, the public sphere became conscious of itself and merged with nascent capitalist interests to generate, among other things, the political philosophy of liberalism, a novel form of governance based on mediated discourses of public opinion and public policy.

As the virtuoso coffeehouse social aesthetic spread more broadly into popular and political culture through the growing influence of the commercialized media in the 18<sup>th</sup> century, so too did the normative values of sobriety and rational civil discourse they promulgated. However, the impact xanthinated beverages and coffeehouse culture had on the development of liberal democracies is evident not just in the (at least ideally) sober political discourses evident in new governance institutions such as the Westminster Parliament (Pincus, 1995), but also in the early modern movements towards governance of the self. Participants in early social reform movements, such as the Societies for the Reformation of Manners, first met in coffeehouses in London in the 1680s to plan how to eliminate vices and public behaviours that they found

objectionable, which not coincidentally were those antithetical to bourgeois coffeehouse etiquette, such as lewdness, swearing, and drunkenness (Hunt, 1999). These emergent discourses on civility and sobriety were disseminated largely through the print "news" media and politicized social networking afforded by coffeehouses, and had an impact not just on the public sphere but also on government legislation and policy (Lemmings & Walker, 2009). In summary, the rise of xanthinated beverage drinking in early modern Europe helps explain how the material and social conditions were established for the subsequent genesis of moral entrepreneurship targeting certain other kinds of psychoactive substance use, from the British gin laws of the 1730s to the war on drugs of the late 20<sup>th</sup> century (Seddon, 2010; J. Warner, 2002).

Integrally connected to the commerce and politics of psychoactive substances was a particularly dark aspect of early modern European colonial mercantilism: the West African slave trade. Indigenous populations in the Americas were largely decimated by new infectious diseases introduced by Europeans, and some who escaped this fate were subjugated into indentured work (Wright & Hill, 1986, pp. 39-41). However, Europeans largely turned to Africa for the provision of cheap agricultural labour in the Americas. As Rawley and Behrendt bluntly put it: "[n]egro slavery was essential to the carrying on of [colonial] commerce, which in turn was fundamental to the making of the modern world" (2005, p. 3). In his cultural history of tobacco, Gately asserts that "tobacco was responsible for the introduction of slavery to North America" (2001, p. 73); however, an equally compelling case can be made for sugar, cacao, and coffee in the West Indies and Central and South America (Norton, 2008; Palacios, 1980; Sheridan, 1974). A commercial shipping triangle between Western Europe, West Africa and the American colonies, known as the Atlantic system (Solow, 1991), exploited slave labour to facilitate a steady growth in the production and traffic of psychoactive commodities for which Europeans were developing considerable appetites. Coca, even though it did not gain popularity as an ingredient for stimulant beverages in Europe and the United States until the latter part of the 19th century, also played an important role in mobilizing cheap labour in Spanish colonial mining and *haciendas* in Bolivia and Peru, where the economic interests of the colonial landowners prevailed over ecclesiastical resistance to a habit that was seen as maleficent and an obstacle to their Christianization (Gagliano, 1994; Streatfeild, 2001). Efforts at ending the global slave trade in the 19<sup>th</sup> century, unlike equivalent attempts to end the trade in illegal psychoactive substances, was largely

successful at eradicating slavery in most parts of the world, although still today in some West African countries, indentured servitude (often of children) for the cultivation and harvesting of cacao to export for global chocolate market is a persistent and often overlooked contemporary labor practice (Off, 2006).<sup>41</sup> As I will discuss in the next section, concepts of freedom and slavery, along with the 19<sup>th</sup> century abolitionist movement, were important factors in the development of modern international drug control.

The acculturation to and adoption of new psychoactive substances in the 16<sup>th</sup> and 17<sup>th</sup> centuries was not a straightforward or linear process, and some of the impediments to popular European acceptance of tobacco, coffee, tea and cacao foreshadow themes that still resonate in drug policy discourses today and affect the current policy context for ayahuasca. One of the initial obstacles to the uptake of novel substances in early modern Europe was a latent sentiment of what I would call *xenopharmacophobia*, or a fear of foreign drugs. Some physicians interpreted the influential medical ideas of Paracelsus as antagonistic to the use of exotic plants and drugs for the cure of European ailments, which they believed could be treated without the need to import expensive exotic commodities from "heathen and barbarous nations" (Cowan, 2005, p. 36). However, this objection did not much impact the medical marketplace, where the number of imported medicinal plant preparations increased twenty-five-fold between 1600 and 1700. For example, while some physicians expressed reservations about the new xanthinated beverages, others (often with financial interests in the colonial trade of these commodities) were among their most enthusiastic advocates, both for specific medical indications and as general therapeutic tonics (Goodman, 2007). On another front, women made their concerns known about the purported negative domestic impact of coffee-drinking, the sobering effects of which were perceived as causing disinterest and impotence in the bedroom. Likewise, in the political arena there was concern among some aristocrats that coffee-houses were meeting places where the caffeinefuelled discussions contributed to seditious conversation, which might easily incite a revolt of the proletariat and an overthrow of established power structures (Weinberg & Bealer, 2002). However, these challenges did not stop the influx of tobacco or xanthinated beverages, which

<sup>&</sup>lt;sup>41</sup> It is worth noting that the plant substances that were not prohibited—such as coffee, tea, cacao, kola and tobacco—but instead whose consumption is promoted by multinational corporations, are those which fit well with both colonial labor practices and contemporary industrial production (Jankowiak & Bradburd, 2003); indeed, the organization of time in the work-day of modern post-industrial capitalist countries still symbolically structured around interruptions for the use of psychoactive substances, such as coffee or cigarette breaks.

quickly evolved from medical curiosities to integral social staples of the early modern bourgeois public sphere and commodity staples of the thriving markets for exotic luxuries.

The popularization of the use of foreign plants such as tobacco, coffee, tea and cacao also raised countervailing questions about the moral and health effects of heathen practices, with reactions ranging from concerned condemnation to categorical prohibition. As well as being an economic venture, European colonialism was a Christian evangelical enterprise, and both Catholic and Protestant missionaries contributed to the execuation of some plants in popular perception. Medicinal and spiritual practices of non-European origin were usually condemned as diabolical paganism, especially those that involved the use of psychoactive plants. For example, Catholic church officials initially associated coffee with the Islamic infidels, as it had been introduced to ports such as Venice by traders from the Middle East (although Pope Clement VIII decreed it a Christian drink after trying it in 1600) (Weinberg & Bealer, 2002). Spanish friars dispatched to the Caribbean and Mexico in the 16<sup>th</sup> century regarded tobacco as a devil's weed, whose traditional indigenous uses in the forms of smoking, chewing and snuff were manifestly sinful. King James of England—whose paranoia about witchcraft led to the torture and execution of hundreds of women and men in early 17<sup>th</sup> century England—authored A Counterblaste to Tobacco, which detailed many religious and health objections to the plant, some as outlandish as those found in modern drug war rhetoric. In the same vein, Mikhail Fyodorovich Romanov, the first Tsar of Russia, declared tobacco consumption of any kind a crime punishable by death (Gately, 2001). However, despite these examples of moral objections and legal obstacles, it is evident today that many of the psychoactive substances introduced to Europe through colonialism and the early modern medical marketplace were thoroughly subsumed into the modern western cultural complex.

The foreign plant "food drugs" introduced to early modern Europe did not supplant the traditional psychoactive substance of choice, alcohol in fermented beverages such as wine, ale, beer, cider and mead, which were inextricably woven into the social fabric of the period (Martin, 2009). However, the advent of the wider availability and use of distilled forms of alcohol, such as gin, in the early 18<sup>th</sup> century irrevocably altered how this substance was to be constructed in the discourses of the emerging modern public sphere. In England, where fiscal policies

encouraged domestic gin production in the 1690s, it became the most popular form of distilled alcohol, although there was no compensatory decline in the thirst for ale and beer (Clark, 1983). Overall consumption of spirits quadrupled between 1700 and 1745, as a result of increased availability and decreased cost, especially for the new dislocated urban poor (J. Warner, 2002). As a result, significant public health and order impacts were apparent, which contemporary discursive and other media commentaries rendered an object of significant political concern.

In the wake of rising moral indignation generated about gin in the newly mediated public sphere—constituted in London by a coffee-drinking bourgeoisie concerned about an ostensible threat to national prosperity and social order—Parliament passed several successive gin acts between 1729 and 1751. The legislation was widely ignored and proved difficult to enforce, efforts at which presaged tactics of the late modern drug war, such as the paying of unscrupulous informants and the targeting of the poor and marginalized (J. Warner, 2002). The London gin craze in the 1730s was among the earliest examples of how important news-driven public opinion would become in influencing liberal politics (J. Warner, 2002), as were the popular revolts against proposed increases on British excise taxes on tobacco and wine in 1733-1734 (Barker, 2000, pp. 135-136).

Ultimately, British consumption of gin and the moral panic immediately surrounding it abated in the latter part of the 18<sup>th</sup> century, although more due to wider first-hand experience and popular awareness of its deleterious effects than punitive regulatory and enforcement measures (Warner, Her, Gmel & Rehm, 2001). For the purpose of tracing a history of drug policy, the most important aspects of the response to the early-18<sup>th</sup> century British gin craze are that "it is the first example of a sustained and systematic intervention by the state in regulating sales of alcohol, and it is the first time that statistics, both economic and epidemiologic, were enlisted in an attempt to sway public opinion and influence wavering legislators" (Warner, Her, Gmel & Rehm, 2001, p. 375). While chronic drunkenness during this period caused public health and disorder problems that merited concern, it was the consequent emergence of public discourses about alcohol and its effects on individual decision making that set the stage for later modern conceptions of addiction (Porter, 1985). Indeed, the notion of the autonomous individual was central to the establishment of the capitalist entrepreneurial and Protestant work ethics of early modernity, so any

relinquishing or loss of individual control was perceived as the equivalent of committing a grave sin in the secularized public sphere (Cohen, 2000). These political and sociological precedents were to be refined and sharpened to an even greater effect in the 19<sup>th</sup> and 20<sup>th</sup> centuries, when the culture of sobriety and rationality that characterized the public sphere made a more explicit link between morality and health, of both the individual physical body and the collective social body.

A notable exception to the popular cross-cultural adoption of new kinds of psychoactive substance use by Euroamericans during the rise of modernity was a group of visionary or entheogenic plants such as peyote, psilocybin mushrooms, *ololiuhqui* seeds (i.e., *Rivea corymbosa* (L.) Hallier f., or morning glory), and ayahuasca. The same warnings given about the satanic properties of New World plants like tobacco, cacao, and coca were also levied at other plants whose uses were not popularized through the modern colonial and industrial capitalist period (at least until the late 1950s, with the birth of the contemporary psychedelic movement). At a time when Euroamericans were opening their mouths to consume all manner of plants and their derivatives imported from new colonial territories, members of this class of psychoactive substances were not popularly adopted but instead eschewed.

There are many possible reasons for this. In part, at that time, richer knowledge about these plants and how to use them may have been effectively guarded and protected by holders of traditional medicine, or lost due to widespread dislocation, disease and death in indigenous populations. However, with the exception of ayahuasca, all of these plants were written about in early ethnographic accounts by Spanish and Portuguese missionaries as early as the 16<sup>th</sup> century, so ignorance of their existence and uses cannot be a sufficient explanation. With respect to ayahuasca, geographic isolation may have played a part in its obscurity, as European contact with Amazonian tribes was relatively late in colonial terms and it was not until the 1850s that Richard Spruce first documented Western knowledge of ayahuasca in his ethnobotanical writings about the Amazon basin (Schultes, 1968). The taste and nature of the experience of peyote, *ololiuhqui*, psilocybin mushrooms and ayahuasca—all of which are bitter, emetic and can produce strong physical and emotional reactions—may also have had a deterrence effect on their expansion into mainstream Euroamerican culture. Finally, unlike most of the other psychoactive substances that came to be regularly consumed in the modern world, most plant-based

psychedelics or entheogens do not have reinforcing pharmacological properties that make users liable to regular habitual consumption or chronic dependence (Anthony, Warner & Kessler, 1994; Gillespie, Neale, Prescott, Aggen & Kendler, 2007; Nichols, 2004); rather, their often powerful and occasionally dysphoric effects (especially among naïve or unprepared individuals) may have deterred repeated use among those few European colonizers who tried them.

A more plausibly significant factor in the successful repression of the classical New World entheogens may have been the imperative among ecclesiastical authorities to control access to primary mystical experience. To the degree that altered states of consciousness, such as mystical experience and spiritual ecstasy, are a central impetus for human religion (Goodman, 1988; Hayden, 2003), control over the legitimacy and authenticity of such experiences has been a perennial political dimension of religious history. While each of the major monotheistic religions has historically had subaltern trends of mysticism among some of its practitioners, often such practices were branded heretical and in some cases were violently suppressed. Along this line of reasoning, Ott (1995) suggests that Christianity instituted a regime of repression against entheogenic plants, a "pharmacratic inquisition" that stretches from classical antiquity to today's global regime of drug control. Just as church authorities maintained a monopoly over the reproduction of the bible—until the Protestant Reformation and the printing press created conditions for much wider dissemination and consequent personal interpretation and exegesis—so too did they maintain a tight rein on the means to induce and the prerogative to authenticate direct mystical experiences.

At the time they were encountering the use of visionary plants by indigenous peoples in the Americas, European religious authorities were well acquainted with and had strong convictions about the unorthodox alteration of consciousness using entheogenic herbs, potions, and brews. The persecution of witches during the Spanish Inquisition had engendered a sophisticated typology of diabolical practices, outlined in such texts as the *Malleus Malleficarum* (Hughes, 1967, Pavlac, 2009; Russell, 1980; Sidky, 1997). Among these was the preparation and use of concoctions made from plants from the Solanaceae family—including henbane (*Hyoscyamus niger* L.), mandrake (*Mandragora officinarum* L.), and deadly nightshade (*Atropa belladonna* L.)—whose psychoactive effects form the basis for some of the modern stereotypical

characteristics of witches (Harner, 1973c; Schultes & Hofmann, 1992). These include riding broomsticks (a representation of wooden staffs used for applying ointments to mucous membranes), and sensations of flying, shape-shifting or transformation into animals (Hansen, 1978; Rudgley, 1994). As a 16<sup>th</sup> century Spanish physician, Andrés Fernández de Laguna, postulated in a translation of Dioscorides' *Materia Medica*,

we may infer that all that those wretched witches do and say is caused by potions and ointments which so corrupt their memory and their imagination that they create their own woes, for they firmly believe when they awake all that they had dreamed when asleep. (qtd. in Rothman, 1972, p. 566)

European herbalists and others accused of witchcraft provided inquisitors with a litany of examples of plant use that subverted religious orthodoxy by virtue of the mystical (or allegedly demonic) experiences they inspired.

It was these conceptions of the pagan use of plants that constituted the guiding dogma for Spanish and other clergy who encountered indigenous entheogens during their missionary work in the Americas. As discussed above, tobacco, coffee and cacao were sometimes initially disparaged as maleficent plants, but as their effects became better known (i.e., as mild stimulants) they were subsequently exonerated and incorporated into Euroamerican culture as luxury and then ordinary consumer pleasures. However, the plants that more reliably produce profound mystical alterations of consciousness, such as peyote, psilocybin mushrooms and ayahuasca, were never redeemed as anything other than the idolatrous objects of heathen worship. For example, Inquisitors in New Spain (Mexico) in 1620 decreed:

The use of the Herb or Root called Peyote . . . is a superstitious action and reproved as opposed to the purity and sincerity of our Holy Catholic Faith, being so that this said herb, nor any other cannot possess the virtue and natural efficacy attributed to it for said effects, nor to cause the images, phantasms and representations on which are founded said divinations, and that in these one sees notoriously the suggestion and assistance of the devil, author of this abuse. (qtd. in Ott, 1996, p. 84)

Similarly, a Franciscan friar, Motolinía, gave a damning report from Mexico in the mid-16<sup>th</sup> century: "They called these mushrooms *teunamacatlh* in their language, which means 'flesh of

God,' or of the Devil that they worshipped, and in this manner, with this bitter food, they received their cruel god in communion" (qtd. in Ott, 1996, p. 277). Although the traditional entheogenic uses of these plants and fungi were vigorously and sometimes brutally suppressed by religious authorities, they were not always necessarily exterminated, but sometimes instead driven underground and covertly syncretized with elements of Christian doctrines and practices. Thus, long after other New World plants shaped modern Euroamerican economies, lifestyles, and political regimes, popular awareness of other, entheogenic, traditional plant practices was negligible, and filtered through a dominant discourse strongly predisposed against pagan immorality, irrationality and inebriety.

The commercial, ecclesiastical and political projects underlying the creation of the early modern European public sphere are key historical factors in how psychoactive substances are treated as global policy issues today. Between the 15<sup>th</sup> and 18<sup>th</sup> centuries, the emerging nation-states of Europe supported an economic policy of mercantilism that drove maritime exploration around the world to acquire territorial holdings and natural resources. In so doing, countries such as England, Spain, Portugal, France and the Netherlands established colonies around the world, subjugating or even exterminating indigenous populations in the process. Although trade goods such as gold, plant-based textile fibres, and animal pelts made vast fortunes for governments and early chartered corporations (joint-stock ventures that often benefited from monopoly conditions), the most important class of commodities for colonial profiteering were psychoactive substances. As historian David Courtwright sums it up:

Drugs meant money, and money meant power. Tobacco financed the American revolution and helped underwrite Europe's dynastic conflicts. Sugar and rum sustained transatlantic slavery; opium subsidized imperialism in Asia. The alcohol-and-fur trade created great family fortunes and capital for industrial development; the coffee boom stimulated railroad construction and drew a million impoverished immigrants to Brazil. In these and countless other ways drug production and commerce shaped the emerging modern world and its power relationships (Courtwright, 2001, p. 167).

Thus, the material roots of today's dominant institutions of modernity—including the creation of the nation state, the bourgeois public sphere, and globalized capitalism—are deeply intertwined with those of psychoactive plants. However, events in the 19<sup>th</sup> century saw an evolution in the interpenetration of psychoactive substances and the public sphere, by which the xanthinated

beverage-inspired ethic of sobriety was expanded and more deeply entrenched through the imperatives of industrial capitalism and scientific technocracy. These conditions in turn were the foundations for the rise of 20<sup>th</sup> century's international drug control regime and drug war ideology, and help explain reflexive reactionary impulses by authorities to criminalize ayahuasca drinking.

### 3.3 – Psychoactive Substance Use in the 19th Century

The role psychoactive substances played in the rise of liberal democratic governance, capitalism and the public sphere during the 16<sup>th</sup> to 18<sup>th</sup> centuries was crucial to how perceptions about and policies governing psychoactive substance use developed subsequently through the intellectual, economic and political events of the 19<sup>th</sup> century. The ideas and influence of natural philosophers—following the empirical, rationalist and intersubjective discursive norms of the virtuosi that had percolated into the public sphere through the early modern coffeehouses of London—continued to accumulate as modern "science" came into its own in the 19<sup>th</sup> century. In addition to establishing the technological foundations for the rise of industrial capitalism, scientific inquiry led to processes of discovery and mass production of new kinds of substances and new ways to use them. 42 The application of science to the human condition simultaneously created new forms of governmentality and policing, increased the status and power of medical practitioners, and spawned (in the wake of Darwin's theory of biological evolution by natural selection) progressive ideas such as social hygiene and eugenics. Furthermore, as the marketplace for news (along with a plethora of other commodities) grew in both Britain and North America in the 19<sup>th</sup> century, it expanded and further commercialized the textual realm of public discourse, instantiated in a mass media through which some kinds of psychoactive substance use could be celebrated and promoted in a free market, while others were rendered objects of moral panic, medical concern and state control. With the consolidation of the Westphalian system of nation states, the creation and expansion of the institution of public schooling became of utmost importance in shaping national identities in the 19<sup>th</sup> century; this, perhaps not coincidentally, served the interests of assorted moral reformers, bourgeois discourse communities that included women's suffragists and temperance campaigners. All of these

<sup>&</sup>lt;sup>42</sup> As historian David Courtwright observes, "[19<sup>th</sup> century] factories did for drugs what canning did for vegetables. They democratized them. It became easier, cheaper, and faster for the masses to saturate their brains with chemicals" (2001, p. 173).

developments were important sequelae to the early modern trends discussed in the previous section, and were more proximal influences on modern drug control and the presentation of ayahuasca drinking as contemporary public policy issue in the 21<sup>st</sup> century.

The epistemological and cosmological shifts seeded by early modern natural philosophy ultimately began to bear utilitarian fruit—until then "at best promissory notes" (Gaukroger, 2006, p. 43) to civil society—through the symbiotic growth of technological innovation and industrial capitalism in the 19<sup>th</sup> century. However, still rooted in amateur passions of the nobility was the work of chemists such as Antoine Lavoisier and Joseph Priestly in the late 18<sup>th</sup> century, whose experiments on "factitious airs" and the theoretical construct of phlogiston (hypothesized as an element responsible for combustion) resulted in the discovery not only of oxygen, but also of nitrous oxide, or laughing gas. This substance, still commonly used in day surgery anaesthetic procedures today, extended the set of psychoactive substances into compounds of the elements of the new molecular chemistry, a precedent building on what alchemists had achieved with the discovery of distilled alcohol centuries earlier.

Nitrous oxide's psychoactive properties were subsequently explored by the young British scientist Humphrey Davy and his mentor Thomas Beddoes, an English physician who was an early proponent of health promotion and the application of science to medicine (Jay 2009). Along with a cadre of acquaintances—including poets Robert Southey and Samuel Taylor Coleridge—they engaged in rudimentary, and more than occasionally rambunctious, self-bioassays with the new gas. <sup>43</sup> Davy found the experience of inhaling pure nitrous oxide exhilarating and illuminating, and also suggested it might be useful as an anaesthetic, although that insight was not realized until decades later in the United States (Li, 2006). Nitrous oxide, and other similar dissociative gases, such as chloroform and ether, were all widely used throughout the 19<sup>th</sup> century for both pleasurable and, after their anaesthetic properties were

<sup>&</sup>lt;sup>43</sup> Essentially Davy pioneered the bioassay method that has been termed the "Heffter technique" (Ott, 1994, p. 98)—the scientific approach to discovering a novel substance's psychoactive properties through careful self-administration and recording of its effects—after chemist Arthur Heffter's experiments with mescaline at the end of the 19<sup>th</sup> century, and refined by independent researchers such as Jonathan Ott (1994; 1999) and Alexander and Ann Shulgin (Shulgin & Shulgin, 1991; 1997).

confirmed in the 1840s, medical purposes (Snow, 2008). 44 Subsequently, investigation of the potential relationship between psychoactive substances and mystical experiences was initiated through William James' self-experimentation with nitrous oxide (1882/1969; 1902). Although it was academically unfashionable for a large part of the 20<sup>th</sup> century, the scientific study of consciousness, on which James had a pioneering influence, has been undergoing a revival in the past few decades (Hameroff, Kaszniak & Scott, 1996), which bodes well for the future of ayahuasca research.

It was in 1802, with the isolation of morphine from *Papaver somniferum*, or the opium poppy, that plants began to be systematically probed for the chemical compounds that were deemed to be the essence of their medical value, according to the reductionist principles underlying science at the time. Over the next century, many more plant-derived psychoactive chemicals were discovered—including codeine, also from P. somniferum, caffeine from C. arabica (coffee), nicotine from N. tabacum (tobacco), cocaine from E. coca (coca), and mescaline from Lophophora williamsii (Lem.) J. Coult. (peyote)—and thus was established the discipline of modern natural products chemistry. This project resulted in what amounted to the exorcism of "spirit" from nature; no longer were these magical plants whose properties were attributable to some vital force or indwelling essence—rather, their properties were simply a characteristic of their molecular composition. Later research developments led to the generation of new synthetic molecular compounds that were not extractions from plants, including synthetic opioids (e.g., methadone, oxycodone and fentanyl), stimulants (e.g., amphetamine and methamphetamine) and dissociative or anaesthetic agents (e.g., ketamine and phencyclidine). <sup>45</sup> Importantly, the research program of determining molecular essences in plants or synthesizing them in laboratories also led to the discovery of harmala alkaloids (in the 1840s) and the synthesizing of DMT (in 1930),

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<sup>&</sup>lt;sup>44</sup> Entertainment was another significant early 19<sup>th</sup> century trend in the use of nitrous oxide, which itinerant proprietors offered to members of the public on stage in order to provoke amusing antics in front of audiences at carnivals and other venues (Jay, 2000); in various ways this foreshadows today's trend of uploading videos to YouTube by youth who have performed, documented and publicized their inebriation on *Salvia divinorum* extracts or other substances (Khey, Miller & Griffin, 2008).

<sup>&</sup>lt;sup>45</sup> The consequent rise of pharmacotherapeutics featured prominently in the rise of the hegemonic scientistic paradigm that still dominates modern medicine today; patients became simply complex machines that obeyed the laws of physics and chemistry, and could be "fixed" by the application of the appropriate molecular monkey wrench: a pill for every ill (D. McKenna, personal communication, January 2011). Other practices that do not conform to this paradigm are marginalized as "alternative" or "complementary" forms of medicine, implicitly understood as unscientific and thus, of course, inferior (Harrington, 2008).

to which ayahuasca's psychoactive effects are attributed, and by virtue of which it has been rendered criminally offensive and an object of contemporary legal and political concern.

Not long after chemists had learned how to extract psychoactive alkaloids and other chemicals from biological organisms, another technological development changed both the way drugs could be put into one's body and the popular conception of the "drug user." The hypodermic syringe was perfected in the 1840s (Lawrence, 2002), allowing for the array of newly isolated chemical substances to be introduced into the body directly into blood vessels (intravenous injection), muscle tissue (intramuscular injection), or under the skin (subcutaneous injection) (Howard-Jones, 1947). The benefits of hypodermic injection as a route of administration are that, under optimal conditions, it allows for a rapid onset of pharmacological effects, relatively precise control over dosage, and minimal wastage of the substance. The downsides of injection are more complex, as there is a distinction between those attributable to the procedure itself, and those that are commonly associated with the procedure but are rather functions of criminalization of certain substances. For example, regardless of the legal context, chronic injection of certain substances can create a strong conditioned reinforcement and thereby greater propensity for repeated use. When done in less than medically hygienic conditions, injection has numerous additional potential harms. Some of the risks generically associated with illegal drug use—including addiction, overdose, abscesses, and transmission of blood-borne pathogens—are increased by hypodermic injection, although many of these are either caused or exacerbated by factors that are unintended consequences of prohibitionist drug policies rather than the substances per se. Today, the non-medical injector is in many respects the dominant representation of a person who uses illegal drugs, the stereotypical "junkie"; thus, it is important to make note of the hypodermic syringe as a factor in how psychoactive substances and their uses are conceptualized in popular consciousness, and especially in policy responses informed by public opinion. In sum, the discoveries of new pure psychoactive chemicals and hypodermic syringes in the 19<sup>th</sup> century greatly impacted today's public and political responses to psychoactive substance use, including ayahuasca drinking as a contemporary policy issue.

More than just scientific and technical knowledge about psychoactive substances changed in the 19<sup>th</sup> century. As Toby Seddon (2010) argues in his recent genealogy of drugs and drug control,

the evolution of governmentality during the period of classical liberalism in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries helped shape the mutually interdependent constructs of freedom, drugs and addiction that inform contemporary drug policies. Seddon's inquiry is an innovative attempt to trace some of the central historical factors in how some psychoactive substances came to be criminalized while others were destined to become ordinary consumer goods. A key aspect of his argument demonstrates how the rise of industrialization, urbanization and laissez-faire capitalism in Britain contributed to changing concepts of individual freedom and the "will" with respect to alcohol (and subsequently opium) use in the 19<sup>th</sup> century. While immoderate drinking had been largely (although not exclusively) regarded as a vice during the surge of distilled alcohol use the previous century (Porter, 1985; J. Warner, 1994), the advent of the temperance and public health movements in the mid-1800s helped propel the disease model of addiction in public, professional and political discourses (Ferentzy, 2001; Levine, 1978).

The emerging 19<sup>th</sup> century construction of some kinds of excessive psychoactive substance use as an illness proposed that for some vulnerable individuals their consumption became compulsive and destructive and required medical intervention. Labelled with new terminology, such as "inebriety," "alcoholism," and "morphinism," as well as a "simultaneously narrowed, moralised and medicalised" meaning of the word "addiction" (Alexander, 2008, p. 30), the disease model was applied originally to alcohol and later to opiates. In an era when slavery, freedom and autonomy were major public and political concerns, the medical perception of addiction as a disease of the will that compromised one's freedom had deep contemporaneous relevance and resonance (Seddon, 2010; Valverde, 1998). Not coincidentally, international cooperation in ending the slave trade gave social reformers in both England and the United States optimism that a similar result might be realized for the opium and alcohol trades (Andreas & Nadelmann, 2006).

Influential leaders of the temperance movement gradually began to see criminalization and prohibition as the optimal way to eradicate the social problems associated with alcohol consumption (Blair, 1888; Gusfield, 1986). Early temperance reformers at the end of the 18<sup>th</sup>

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<sup>&</sup>lt;sup>46</sup> The link between addiction and slavery is latent in the Latinate etymology of the former, which derives from a Roman legal concept of rendering someone into bondage (Alexander, 2008, p. 49).

century, such as physicians Thomas Trotter and Benjamin Rush, had emphasized the desirability of alcohol consumption in moderation, preferably in the form of beer and wine, and eschewed only the intemperate drinking of distilled spirits (Haakonssen, 1997). However, as the temperance movement gained political momentum, it evolved into an ideological crusade for absolute teetotalism, with proponents insisting that "total abstinence from the use of intoxicating drinks as beverages by the individual—not as a matter of choice or expediency, but of moral obligation—is . . . the fundamental proposition of the temperance reform" (Blair, 1888, p. 289). For these reformers, alcohol or other psychoactive substance use for anything except medical purposes was a moral transgression, the extirpation of which required not just the mobilization of civil society, but the full force of criminal law.

The 19<sup>th</sup> century temperance movement was among a score of similar moral and social reform movements that aimed to improve the lot of groups perceived to be in need of moral guidance or material and economic welfare, including women, children, slaves, animals, immigrants, the mentally ill and the poor. The cross-fertilization among some of these various movements was more than just philosophical; it also involved the sharing of an array of promising political tactics (Symanski, 2003). In particular, women suffragettes were galvanized through organizations such as the Women's Christian Temperance Union (WCTU) to lobby for prohibition of alcohol, as women and children then, as now, disproportionately suffered the consequences of men's problem drinking. Furthermore, because the legal consumption of alcohol was seen as a salient obstacle to participation in political life, mobilizing and politically empowering the female electorate was seen as highly strategic for achieving the goal of prohibition (Paulson, 1973; Valverde, 1991). American industrialists also supported the temperance cause for its promise to deliver a sober workforce, and thereby increase productivity and profits (Aaron & Musto, 1981). For their part, labour activists suggested that the saloon perpetuated the subjugation of the working classes, and that temperance was a means by which to raise collective consciousness about the need for improved employment conditions. Alcohol prohibition was ultimately achieved in most Canadian provinces, the United States, and some Scandinavian countries in the early 20<sup>th</sup> century, but in most jurisdictions it was relatively short lived, as flagging popular support, economic realities (i.e., enforcement costs and lost taxation

revenue), and the apparent unintended harms of criminalization (i.e., escalating organized crime and associated violence) made it increasingly less viable (D. Hamilton, 2004; Gusfield, 1986).<sup>47</sup>

The scope of the 19<sup>th</sup> century temperance movement was ultimately not limited just to alcohol. however, as the non-medical use of opium (and later morphine, cocaine, and heroin) began to be similarly regarded as noxious habits, for which similar political remedies were proposed. However, the movement towards prohibiting opium had a somewhat different trajectory and much different long-term outcomes, especially in terms of global politics in the 20<sup>th</sup> century. Seddon (2010) points to concerns about premature mortality associated with chronic opium use in the increasingly sophisticated British life insurance business, as well as the passage of the Pharmacy Act of 1868, as critical factors in the movement towards perceiving opium as a problem substance and the need for its domestic regulatory control. Internationally, the Dutch, Portuguese and English had all consolidated their power in the Orient through the opium trade, with the latter ultimately resorting to armed military conflict in China—in the eponymous Opium Wars—to ensure that its imperial economic and political interests were protected (Dikötter, Laaman, & Xun, 2004; Escohotado, 1999). Although opium was a vital source of revenue for the British Empire and was instrumental in maintaining a hegemonic balance of commerce between its South and East Asian colonial interests, groups such as Protestant missionaries, Quaker reformers, and Chinese nationalists vigorously objected to the trade (Brown, 1973; Lodwick, 1996; Winther, 2003). By the end of the 19<sup>th</sup> century, these and other assorted moral entrepreneurs had succeeded in mobilizing public opinion in Great Britain and the United States to push political leaders into taking some action on the matter. 48 Public health concerns about domestic opium consumption—and a shift towards regarding non-medical drug use as deviant created a further sense of urgency (Berridge, 1999). An added source of alarm was the influx of Chinese immigrants into North America and England, an ethnic group whose penchant for smoking, rather than eating or drinking, opium in the 19<sup>th</sup> century was regarded as particularly degenerate and likely to be cunningly deployed in the seduction of young white women

<sup>&</sup>lt;sup>47</sup> Alcohol prohibition has been a more enduring public policy in some conservative Islamic countries, where alcohol products are nevertheless generally widely available and use is controlled more by religious proscription than civil or criminal penalties (Michalak & Trocki, 2006).

<sup>&</sup>lt;sup>48</sup> The term "moral entrepreneur" was coined by sociologist Howard Becker (1963) to describe organizers, activists and self-appointed do-gooders who coalesce to stir up public sentiment and to crusade against what they identify as a morally-objectionable behaviour (see also Goode & Ben-Yehuda, 1994).

(Carstairs, 1999; Kohn, 1992; Musto, 1999). Thus, in less than a century, opium went from being a substance widely used for both medical and non-medical purposes, to being a pernicious object of moral, medical, and public health and safety concerns.

The movement to control the international opium trade through criminal sanctions was not the first instance of a popular initiative to sway public opinion and political action and culminate in the institution of a global prohibition regime. Piracy and privateering had been widely practiced and supported by most European states in the early modern era of naval imperialism and colonial mercantilism, but by the 19<sup>th</sup> century its condemnation was nearly universal and its suppression the first example of a modern global prohibition consensus (Andreas & Nadelmann, 2006). Likewise, slavery and the slave trade went from being institutions perceived as integral to the economic health of most European colonial economies in the 17<sup>th</sup> century, to being all but universally proscribed by the late 19<sup>th</sup> century. As Andreas and Nadelmann (2006) put it,

Although the regime against piracy represented the first global prohibition regime, the regimes against slavery and the slave trade added new dimensions that have since been replicated in more recent global prohibition regimes. The initial regime to ban the slave trade was the first to be institutionalized in a series of international conventions signed by the vast majority of governments; it was the first in which blatantly moral impulses as well as transnational moral entrepreneurs played leading roles; it was the first to criminalize international commerce in a particular "commodity"; and it was the first to evolve into a far more ambitious regime aimed at the criminalization of all activity involving the production, sale, and use of that "commodity" in every country. (p. 31)

Other examples that followed the success of the anti-piracy and anti-slavery movements, besides the opium trafficking prohibition initiative, were the suppression of the "white slave" trade, or the international trafficking of sex workers, in the early 20<sup>th</sup> century, and the prohibition of trade in endangered animals and products from which they are manufactured.

What these efforts towards international prohibition regimes all have in common is a similar pattern of evolution: at first, most societies regard the activity to be proscribed as legitimate, at least under certain conditions and with respect to certain groups of people, and states are complicit or abettors in the activity; next, the activity is redefined by moral entrepreneurs as a

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<sup>&</sup>lt;sup>49</sup> However, Baucom (2005) argues convincingly that the violent and rapacious logic of speculative finance that undergirded the Atlantic slave trade is still very much implicit in today's global capitalist economic system.

moral and social problem, and shifts in public opinion gradually delegitimize government involvement; third, proponents of a prohibition regime, including some governments, begin to campaign for the suppression and criminalization of the activity by all states and instigate the formation of international conventions; ultimately, the activity is criminalized and subject to police action throughout much of the world (Andreas & Nadelmann, 2006, pp. 20-21). In some cases, such as for piracy and slavery, a fifth stage is realized, whereby the incidence of the deviant activity is significantly diminished and persists only in isolated places and on a small scale. In the case of illegal drug use and trafficking, however, the nature of the "problem"—including the absence of an obvious victim seeking redress, and the lack of sound scientific, public health, social justice and human rights principles at the prohibition regime's foundation—has resulted in greater social, economic and political harms than the deviant activity itself (Nadelmann, 1989; Wodak & Owens, 1996).

#### 3.4 - Professionalization & the Path to Prohibition

The mobilization of political leadership to pursue a global prohibition regime for certain psychoactive substances was facilitated by other interrelated trends in the 19<sup>th</sup> century—the professionalization of physicians, school teachers, and police. While none of these trends may seem particularly significant *per se*, together they pushed civil society towards a consensus frame for conceiving of "narcotics" as a policy problem for which criminalization and prohibition were regarded not just as the optimal, but as the only solution. Before discussing the specifics of the contemporary international drug control regime in the next section, and the discursive evidence for a hegemonic drug war paradigm to which ayahuasca drinking presents a significant challenge (in the next chapter), I will briefly touch on relevant aspects of the institutional development of and professional expertise in health, schooling, and policing over a century ago.

The increased power and influence of medical professionals in the 19<sup>th</sup> century contributed to the rise of both the disease model of addiction and the regime of modern drug control. Although in most societies healers enjoy a privileged social status, Western medical doctors in the 19<sup>th</sup> century benefited from a significant shift in their perceived credibility and authority on both medical and moral matters. Until the application of scientific methods to medical practice, the art of healing in Western knowledge systems had relied on philosophical principles established in

classical Greece by philosopher-physicians such as Hippocrates and Galen. <sup>50</sup> Beginning with physicians such as Paracelsus in the 16<sup>th</sup> century, and accelerating over the following centuries, empirical studies of the human body fundamentally changed Western ideas about illness and medicine (Harrison, 2004; Porter, 1997). Technological innovations, such as microscopes and mechanical clockworks, produced new insights into and metaphorical conceptions of biological organisms, which did not take long to be applied to medical practice. By the end of the 19<sup>th</sup> century, John Snow's deductions about a community water pump as the source of a cholera outbreak in Soho had contributed to a new understanding of bacterial pathogens, epidemiology and public health (Rosen, 1958); Louis Pasteur's experiments on germs, bacteriology and vaccination had revolutionized preventive medicine; Joseph Lister's standardization of antiseptics in surgery had greatly reduced nosocomial infection (Porter, 1997); and the application of new pharmacological agents with anaesthetic properties—such as nitrous oxide, chloral hydrate, ether and cocaine—had revolutionized surgical operations (Snow, 2008). The application of science and technological innovation to medicine gave physicians the tools to perform ostensible miracles, and their social status as intermediaries of health rose accordingly.

In addition to changes in medical practice, a shift occurred in medical training and professional accreditation in the 19<sup>th</sup> century, as apprenticeships (associated with trades) were replaced by advanced degree programs in university medical schools (Brunton, 2004), and professional organizations took on the role of self-regulating standards for training and membership. In the United Kingdom, the *Apothecaries' Act* of 1815 established a national system of control over apothecary practice, the final stage in the long decline of the guild system which had governed practitioners in the medicinal drug trade since medieval times. It also marked the rising power of chemists or druggists, a set of tradespeople who perceived and distinguished themselves as more educated, innovative and upwardly mobile than their soon-to-be bygone drug-dispensing counterparts (Holloway, 1995). The passage of the British *Medical Act* of 1858—which granted state-certified professional status to general medical practitioners and provided a legislative tool to condemn and outlaw unlicensed practitioners as quacks and charlatans—likewise reflected the

<sup>&</sup>lt;sup>50</sup> Galen's system of humours (phlegm, blood, black bile and yellow bile) were correlated with the fundamental elements postulated by the pre-Socratic philosopher Empedocles (water, air, earth, and fire) to create a coherent system of physical and psychological health that informed Western medical thinking for over a millennium (Porter, 1997).

growing status of physicians (Roberts, 2009). These factors combined in such a way that pharmacists, and particularly physicians, benefited from a "collective social mobility" in the 19<sup>th</sup> century, according them a newfound respect and social standing (Parry & Parry, 1976).

In relation to psychoactive substance use and the trajectory of drug control, the rising power of medical professionals had significant consequences. Prior to the 19<sup>th</sup> century, psychoactive substance use was treated as personal matter, with laissez-faire attitudes reinforcing the rights of patients (at least those who could afford to consult health professionals) to choose their medical treatment (Holloway, 1995). However,

as part of their campaign toward professionalization, physicians wished to gain control over the right to prescribe [psychoactive] substances. . . . Pharmacists were willing to acquiesce in this encroachment on their traditional prerogatives as long as they received exclusive rights to retail distribution. This emerging medical establishment attacked the patent medicine trade, marginal practitioners, and self-medication as threats to public health as well as to their professional aspirations. (McAllister, 2000, p. 16)

Complex reasons lay behind the aspiration of physicians to control access to most psychoactive substances and restrict them exclusively to medical uses, with public health and the best interests of their patients certainly being a primary driving force. At the same time, physicians' increasing stature as professionals would, and did, benefit further from a monopoly over the power to serve as such gatekeepers (Mallek, 1997). Not surprisingly, the disease model of addiction gained currency in dominant public and political discourses as the practice of medicine was professionalized in the 19<sup>th</sup> century, which in turn played an important role in how international drug control subsequently developed.

The rise and expansion of public schooling in the 19<sup>th</sup> century was another vital institutional component in the foundations of contemporary drug control. As much as they seem a perennial aspect of the cultural landscape, schools in the form they take today have existed for only about 150 years. Prior to the modern public school, education was primarily a religious project, and then just among a select few. Although for some faith groups the transmission of religious values and doctrine still constitute their primary educational concerns, the secular public school has become the dominant institutional form of cultural knowledge transmission in modern nation states. The earliest forms of modern state-sponsored mass schooling began in Prussia in the 18<sup>th</sup>

century, as part of the early German nation-building project. As the nation-state geopolitical system was consolidated during the 19<sup>th</sup> century, the institution of public schooling spread across Europe and ultimately worldwide (Ramirez & Boli, 1987). The nationalist imperative behind public schooling was equally important for its genesis in colonized states such as Canada and the United States, where assimilation of immigrants—and more tragically, aboriginal peoples—was a seminal educational concern (Johnson, 1968; Millroy, 1999).<sup>51</sup> And as with health professionals such as physicians and pharmacists in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, university training, accreditation, the organization of labour, and other professionalization efforts were instituted to improve the socio-economic status of school teachers and administrators.

It was not only the state in the 19<sup>th</sup> century that saw the value of public schools in shaping the attitudes, beliefs and behaviours of young people. Among the early interest groups that gravitated towards the project of mass schooling in North America was the Women's Christian Temperance Union (WCTU), which in the name of individual moral improvement and collective cultural hygiene undertook a concerted and sustained political and public education campaign against psychoactive substance use in North America and elsewhere (Gusfield, 1955; Hunt, 1999; Parker, 1999; Tyrrell, 1991). Although alcohol was the primary focus of the WCTU's mandate, they also condemned tobacco, opium and other inebriants (Mallek, 1997), and advocated abstinence from all mind-altering substances (with the apparent exception of xanthinated beverages, which are not mentioned in their literature) (WCTU, n.d.). One of the primary ways the WCTU pursued its agenda was through the development and distribution of curriculum resource materials known as "Scientific Temperance Instruction" (Mezvinsky, 1961), which it had considerable success in implementing throughout North America, in many cases by lobbying legislators who passed laws to ensure that their use was mandatory (Sheehan, 1980; Zimmerman, 1999). In Canada, "by the turn of the [20<sup>th</sup>] century most provinces had some form of temperance teaching in schools" (Sheehan, 1984, p. 103). It is difficult to gauge what impact Scientific Temperance Instruction had on subsequent political developments for alcohol and other drug policies, but its widespread dissemination in the late 19<sup>th</sup> century and the eventual

<sup>&</sup>lt;sup>51</sup> In chapter 6, I discuss some of the effects that public schooling, at least in its most common institutional forms, has had on young people's capacities to experience wonder, awe and enchantment, which I argue has important implications for understanding and responding to ayahuasca as a contemporary policy issue.

(although short-lived) implementation of alcohol prohibition by democratic means a few decades later suggests its inculcatory effects were not negligible.

The challenges faced by promoters of drug education in the nascent public schooling project illustrate the emergence of some of the early fault lines in the drug policy terrain that still characterize its fractious nature today, which is important to understand as background to the policy challenge presented by contemporary ayahuasca drinking. One of the most central of these was the deployment of science, whose waxing power and authority in 19th century public discourse the WCTU capitalized on in naming its drug education curriculum material. As Zimmerman puts it, the WCTU "looked to the laboratory as the final arbiter of truth both behind and beyond its walls. In the ensuing struggle, however, equally 'scientific' and 'competent' experts . . . would invoke the same 'facts' on behalf of radically different agendas" (1993, p. 173). Unfortunately for temperance campaigners, their hopes that scientific evidence would unequivocally support their moral positions on the use of alcohol were not borne out. However, after more than 100 years, science is still invoked by champions of drug education as central to their efforts in preventing illegal or otherwise objectionable substance use (Hawkins, Catalano & Arthur, 2002; Schinke, Brounstein & Gardner, 2002). Such enduring optimism about scientific evidence and its importance in planning and delivering drug education seems to ignore the fact that, over the past century, the voluminous increase in research on both psychoactive substances themselves and efforts to prevent their use has not correlated with any discernable corresponding declines in prevalence of use (Caulkins, Rydell, Everingham, Chiesa, & Bushway, 1999; Cohen, 1996; Gandhi, Murphy-Graham, Petrosino, Chrismer, & Weiss, 2007; Hawthorne, 2001).<sup>52</sup>

The growth and professionalization of policing was another critical element among the 19<sup>th</sup> century social, economic and political changes that laid the groundwork for today's international drug control regime. The observation that one of the defining features of the modern state is its claim to a monopoly on the legitimate use of violence and physical force (Weber, 1919/2004)

<sup>&</sup>lt;sup>52</sup> The somewhat parallel history of contentiousness that scientific theory and evidence has played in the planning and delivery of sexuality education in public schools (Egans & Hawkes, 2010; Moran, 2000; Santelli, 2008) suggests that further reflection on the similarities between these two domains of "vice education" could mutually inform their evolution in research, policy and practice (Tupper, 2008b). Along similar lines, the public health achievement of an overall reduction in prevalence and incidence of tobacco smoking in industrialized countries was realized without states resorting to the blunt policy lever of criminalization and categorical prohibition (Koh, Joosens & Connolly, 2007), and thus may be instructive about balancing education with other policy levers.

means that criminal law enforcement is an integral component of one of the state's predominant forms of social control—the penal system (Horwitz, 1990). Early modern Anglo-American domestic law enforcement had been conducted by local sheriffs, constables and watchmen, who primarily took a reactive approach to addressing crime (that is, they responded when requested by victims or witnesses, but did not invest much in preventing or discovering criminal behaviour proactively), and mostly relied on informal social surveillance and control among ordinary citizens (Uchida, 2010). By the late 18<sup>th</sup> century, however, the socio-economic effects of rapid urbanization and incipient industrial capitalism, such as vagrancy, drunkenness and crime, were depicted in public discourses as imminent threats to the social order, so political forces mobilized around the creation of standing uniformed police forces (distinct from the military), which were patrolling larger cities in both the United Kingdom and Unites States by the late 19<sup>th</sup> century (Uchida, 2010). Innovations in intelligence, surveillance and detective work in other European countries and in North America—to counteract smuggling and counterfeiting—also contributed to new forms of proactive policing, which would prove essential for pursuing and apprehending perpetrators of drug offenses in the 20<sup>th</sup> century (Andreas & Nadelmann, 2006). And as with modern physicians and school teachers, police sought to advance their professional status and social standing with improved discipline, training, certification and leadership among their ranks.

The history of Canadian policing has a somewhat unique path in the broader development of modern law enforcement, especially inasmuch as the federal police force, the Royal Canadian Mounted Police (RCMP), became an institution of civic pride and a universally-recognized national symbol. <sup>53</sup> Because the terms of confederation outlined in 1867 delegated constitutional responsibility for policing in the Dominion of Canada to provinces or municipalities, and since territories rather than provinces originally comprised the western parts of the country, eastern jurisdictions generally adopted the London model of municipal policing, and the west remained an unruly frontier. However, in 1868 a small federal police force, the Dominion Police, was assembled to protect government buildings in Ottawa, and in 1873 the federal North-West

<sup>&</sup>lt;sup>53</sup> Although it enjoyed almost a century of public prestige, the RCMP in the past few decades has suffered from behind-the-scenes political machinations, leadership failure, calculated duplicity and public scandals (Palango, 2008). In keeping with the force's history, these include transgressions related to drug law enforcement. One particularly egregious example of deliberate public deception recently was the RCMP's attempt to discredit the positive results of scientific research on Vancouver's Insite supervised injection site through the media (Geddes, 2010).

Mounted Police force (modeled on the Royal Irish Constabulary) was created in order to keep peace among and dispense justice to aboriginal peoples and non-Native settlers, trappers and traders on the western frontier (Royal Canadian Mounted Police, 2002). Yet the decimation of the plains bison, the establishment of Indian reserves, and general dislocation stemming from brutal assimilation policies meant that Canadian aboriginal peoples had become less of an overt threat to settlers and modern progress in the early 20<sup>th</sup> century west (Annett, 2005; Millroy, 1999). During the first part of the century, the force dwindled and was almost disbanded over a dispute about enforcement of alcohol prohibition between Ottawa and the provinces of Alberta and Saskatchewan, which formed their own provincial police forces (Palango, 2008, p. 38). However, the necessity for proactive policing and surveillance on a national scale became apparent to parliamentarians not long after the 1914-1918 war, when concerns about pro-labour and other radical political movements in the west became a full-fledged "Red scare" conspiracy that required immediate and forceful government opposition (Francis, 1997). Thus, in 1920 the Dominion Police and North-West Mounted Police were merged to form the RCMP, whose responsibilities, in addition to routing communists and their sympathizers, included enforcement of federal statutes such as the *Opium and Narcotic Drug Act* (the 1911 successor to the 1908 Opium Act) (Giffen, Endicott & Lambert, 1990; Macleod, 1994). The inclusion of drug law enforcement in the initial mandate of the RCMP was fortunate for the long-term fate of the newly established national police force, as arresting people who sold and consumed illegal psychoactive substances proved to be a much more enduring enterprise than catching Bolsheviks.

The inaugural years of the RCMP saw leaders of the new federal police force struggle to maintain political support for its existence in the early 1920s. To this end, drug crimes—which, in many provinces and for all aboriginal people at the time, also included alcohol distillation and smuggling (Gray, 1972)—provided an ideal justification (Hewitt, 2004). By 1925, "the number of investigations undertaken by the RCMP to enforce federal statutes rose [doubled] from 2068 during their first year of operation to 4173. . . [and] about half of these investigations involved narcotics cases or hunting for illegal stills" (Macleod, 1994, p. 49). During this time, specialized RCMP drug squads and specialized federal prosecutors for drug cases were established, while a lucrative illegal market for prohibited substances such as heroin and cocaine emerged in urban

centres such as Montreal, Toronto and Vancouver (Giffen, Endicott & Lambert, 1990, pp. 127-136).

Early enforcement wins on drug crimes in the early 1920s were achieved by what can be aptly described as plucking low-hanging fruit—arresting and prosecuting individuals such as Canadians or immigrants of Asian descent, compassionate medical practitioners, and the urban destitute—many of whom were reported on by paid informants (Hewitt, 2004). However, before the end of the decade, these kinds of cases were soon supplanted by more complex and challenging investigations on more deeply entrenched criminal underground networks in the illegal drug trade (Carstairs, 2006; Solomon & Green, 1982). At the same time, people not deterred from non-medical substance use by prohibition turned to using more concentrated forms of substances or more efficient routes of administration (such as switching from fermented to distilled alcohol, opium smoking to morphine injection, or from morphine pills to heroin injection). This happened in part because contraband distributors favored the more potent, more easily concealed, and more lucrative forms of their psychoactive commodities (so the less potent forms became increasingly unavailable), and in part because the increasing retail market prices caused by prohibition encouraged people to seek more efficient, though also more risky, ways to ingest. These early 1920s consumption and enforcement trends in the illegal drug market originally unintended, but now difficult to account for as anything other than inexorable and predictable consequences of prohibitionist policies (Nadelmann, 1989)—have not abated over most of the past 90 years; rather, they have generated rich, powerful and ruthless domestic gangs and global organized crime networks, despite ever-increasing police budgets, human resources, technologically-sophisticated equipment, proactive intelligence and international cooperation (Andreas & Nadelmann, 2006; Chettleburgh, 2007; Glenny, 2008).<sup>54</sup>

The professionalization of policing in North America during the 20<sup>th</sup> century was inextricably linked with early national and transnational drug law enforcement, and had substantial implications for the evolution of both domestic and international drug policies. Despite the fact

<sup>&</sup>lt;sup>54</sup> The apparent exception to the general rule that drug law enforcement increases retail price is the dramatic decline (50-80%) in the wholesale and retail prices of heroin and cocaine in both Western Europe and the United States in the past few decades, believed to be a function of economic globalization, decreased profit margins throughout the supply chain, and increased competition among distributors (Miron, 2003; Storti & Grauwe, 2009).

that during the first few decades of drug prohibition most recruits to law enforcement had little or no post-secondary education, let alone advanced training in medicine or public health (Carstairs, 2006, pp. 97-98; Kelly & Kelly, 1973, pp. 174-5), police nonetheless quickly managed to position themselves in public and political discourses as having specialized expertise and authoritative knowledge about psychoactive substances and their effects (Wilson, 2000). In part, this achievement may have been due to the glamour of drug law enforcement as a specialization and its attractiveness as a task contributing to social purity; in the early history of the RCMP "narcotics policing was higher status than most police work, and it attracted many articulate and upwardly mobile officers" (Carstairs, 2006, p. 92). However, presentable and well-spoken police authorities depended on the mass news media to provide a platform for the expression of their views, which news reporters and editors regularly (and often exclusively) afforded them by seeking and conveying police opinions on stories about drugs and the emerging self-evident connection between drugs and crime (of which sexuality, gender and race are ubiquitous textual or subtextual corollaries (Boyd, 2004; Cohen, 2006; Kohn, 1992; Prkachin, 2007)). 55 The enduring fascination with, and often sensationalizing of, crime in modern Anglo-American commercial news (and entertainment) media since its inception in the late 17<sup>th</sup> century (Barker, 2000) provided an ideal environment in the early 20<sup>th</sup> century for new drug law enforcement agents to spread ideas about illegal drugs that served both individual and collective professional ambitions.

The increased public perception of police as drug experts in early 20<sup>th</sup> century marked the advent of what is now a near-axiomatic association between certain types of psychoactive substance use and criminality. Despite the simultaneously ascending status of physicians and pharmacists at the time, the consensus on enforcement of prohibition laws as a primary means of drug control meant that policing and judicial interests achieved a hegemonic position in mainstream public and political discourses: "once the law enforcement officials had the social mandate to implement narcotic drug prohibition, all aspects of the drug situation were assessed in terms of whether or not they helped or hindered the system of control" (Giffen, Endicott & Lambert, 1990, p. 321). While medical perspectives on psychoactive substance use and addiction (often

<sup>&</sup>lt;sup>55</sup> Both historic and contemporary examples of narratives abound, but one of the more colourful ones is Emily Murphy's post-war public education campaign in Maclean's magazine against "marihuana," a substance that was mostly unknown in Canada at the time (Murphy, 1922). See also Speaker (2001).

conflated concepts, as use *per se* is conventionally presumed to progress inexorably to addiction) were not excluded from the public sphere, they were subordinated to the drug war paradigm which has guided international drug control over the past century and established the law enforcement perspective as the final arbiter of authoritative policy knowledge about psychoactive substances for most of the 20<sup>th</sup> century.

## 3.5 – The 20<sup>th</sup> Century & Modern International Drug Control

The establishment of today's international drug control regime began in earnest in the early 20<sup>th</sup> century, with the meeting of the Shanghai Opium Commission in 1909, and a follow-up meeting in the Hague, where the first international drug prohibition treaty was signed in 1912 (McAllister, 2000). The pressures by British anti-opium campaigners to end the United Kingdom's involvement in the international opium trade had borne political success, but only through the support of the geopolitically ascendant United States, which had a strong economic interest in eroding the trade supremacy European countries maintained with China (Bruun, Pan & Rexed, 1975). Indeed, "in both east and west, the drug question intertwined with numerous other concerns and interests; drug control served not only as an end in itself but also as a means to achieve other aspirations" (McAllister, 2000, p. 14). Pharmaceutical companies in Europe and the United States were reluctant to give up a significant source of revenue, but they eventually acceded to compromise and agreed to abandon the market in order to distinguish themselves from the increasingly disreputable patent medicine industry. Then, as now, drug policy diplomacy was a complex game with multiple players, all motivated by disjointed political, economic, and moral concerns.

Although curtailing the trade and non-medical use of opium was the initial impetus for an international treaty in 1912, other substances, such as morphine, coca and cannabis were also identified as "narcotics" warranting strict control. American delegates at the Hague had insisted that these other drugs be discussed, but no measures were taken to prohibit them at that time (Bewley-Taylor, 1999). The Great War of 1914-1918 interrupted efforts at implementing even the controls on opium, but victory by the Triple Entente states (i.e., the United Kingdom, France

<sup>&</sup>lt;sup>56</sup> Canada had already prohibited the importation and sale of opium for all but medical uses with the passage of the 1908 *Opium Act* (Giffen, Endicott & Lambert, 1991).

and Russia) ensured that states previously reluctant to curtail drug manufacture and international trade, such as Germany and Turkey, had little choice but to comply. In the war's aftermath, as a part of the Treaty of Versailles, the League of Nations was established, and drug control was articulated as one of its primary *raisons d'être* (Bewley-Taylor, 1999). By 1925, the League had formed a bureaucratic infrastructure to monitor international drug control, and another international agreement signed in Geneva that year expanded the scope of control to include cannabis and coca leaves, although not yet to the same strict degree as opium (McAllister, 2000, p. 76).

Although the United States did not formally participate in the League of Nations, it played an influential background role in its international drug control efforts of the 1930s (Taylor, 1969). In particular, Harry J. Anslinger, the head of the U.S. Federal Bureau of Narcotics from 1930 to 1962, ensured that American interests were well represented in the League's drug control activities throughout the 1930s (McWilliams, 1990). Anslinger was a firm believer in, and passionate advocate for, the criminal justice approach to drug control. His experiences working on alcohol control in the 1920s (during the U.S. Prohibition era) led him to consider international supply control efforts equally as important to domestic enforcement of drug laws (Kinder & Walker, 1986). Anslinger proved to be a skillful bureaucrat, to which his three-decade career in drug control policy is testament. Notably, one of his compadres and primary allies in the international drug control efforts prior to and immediately after World War II was the Canadian Colonel Charles Sharman, whom McAllister describes as "Anslinger's soulmate" (2000, p. 94; see also, Anslinger, 1959).

Following the 1939-1945 War, the bureaucratic machinery of the League of Nations was transferred to the newly established United Nations (UN), although this new international organization did not explicitly identify drug control in its core mandate as its predecessor had done. Nevertheless, the post-war shift in the balance of geopolitical power ensured that the United States' considerable influence on international drug control was further strengthened, reflecting its new role as a superpower in global relations (Bewley-Taylor, 1999). For several years after the war, Harry Anslinger continued his ascendance in the international arena by ensuring that drug control was a central aspect of the United States' national security apparatus

during the incipient years of the Cold War, and by using xenophobic rhetoric blaming foreign countries—such as "Red China"—for American domestic drug problems (Kinder, 1981).

However, by the mid-1950s, Anslinger's intransigence on considering any approaches other than strict criminalization and supply reduction in source countries isolated him from others in the international arena, and the U.S. State Department took on greater responsibilities for international drug control. In the latter half of the 1950s, Anslinger was particularly perturbed by a change of location for the annual meetings of the Commission on Narcotic Drugs from New York, where he could maintain a close watch simultaneously on both domestic and international affairs, to Geneva, and he boycotted the meetings in protest (McAllister, 2000). Although the eclipse of Anslinger's influence was a harbinger of the shift in the latter part of the 20<sup>th</sup> century towards a relatively greater importance for the medical perspective on psychoactive substance use and addiction, the primary focus of international control remained on supply reduction and criminalization (Bewley-Taylor, 1999).

The assortment of international drug control treaties entered into during the first half of the 20<sup>th</sup> century had created an unwieldy hodgepodge of rules and regulations, a state of affairs which in the 1950s inspired a perceived need for the creation of a new treaty that would consolidate, unify and expand the international drug prohibition regime. Furthermore, post-war developments in global politics—such as the unexpected rapid granting of independence to many former colonial states—meant that the number of countries in the sphere of international relations had expanded and the established balances of power had shifted. In 1961, a plenipotentiary UN meeting ushered in the Single Convention on Narcotic Drugs, which replaced the various earlier treaties and is the backbone of today's international drug control regime. The new treaty required states to limit exclusively to medical and scientific purposes the cultivation, manufacture, distribution and use of controlled substances, and to report their annual legitimate needs for controlled substances to the UN; it also and optimistically promised to eliminate opium smoking, cannabis smoking and coca chewing within 25 years (United Nations, 1961). When it came into force, the 1961 Single Convention was "for many proponents of transnational narcotics prohibition . . . a high point in the international process that began in Shanghai in 1909" (Bewley-Taylor, 1999, pp. 136-7).

Commercial and cultural developments in the 1960s, however, confounded the international drug control regime and revealed limitations in the scope of the 1961 Single Convention. The perceived urgency of expanded drug control was intensified to an even greater degree in that decade by the burgeoning incidence of illegal drug use among young people in modern industrialized countries. For many of the "baby boom" generation, the use of substances such as cannabis and LSD became a social and political symbol of counter-cultural resistance to traditional authority, and a way of expressing their dissatisfaction with Cold War socio-political realities and the spiritual sterility of the era's technocratic materialism (Ellwood, 1994; Roszack, 1969). In most countries, government and public opinion about these developments was unequivocal: the use of illegal drugs by young people was decadent, dangerous and depraved, and needed to be stopped by all means necessary. For the international drug control regime, this meant proceeding with the development of another treaty to augment the 1961 Single Convention.

In addition to rising illegal drug use among youth in the 1950s and 1960s, the pharmaceutical industry and the psychiatric profession were purveying new kinds of synthetic psychotropic substances—such as opioids, benzodiazepines and hallucinogens—whose promise as medical treatments was tempered by apparent side effects not dissimilar to those of familiar plant-derived controlled substances (Healy, 2002). Furthermore, some of these new kinds of drugs could be synthesized in laboratories without the need for traditional raw plant materials as precursors, which meant that the disruption of conventional supply chains from source countries was less viable as a control measure. By the late 1960s, the international drug control community had begun preparing another treaty to address the rising use of these new psychotropic substances.

The 1971 Convention on Psychotropic Substances represented a hard-fought compromise between the interests of pharmaceutical companies that lobbied to ensure their products (and profit margins) were not unduly restricted, and member states that sought tighter controls and, thereby, reduced incidence of addiction to (or even use of) new kinds of synthetic substances. One example of such compromise was the exclusion of derivatives (i.e., various salts, esters and isomers of a substance) from the treaty, which manufacturers insisted would be too cumbersome to inventory (McAllister, 2000, p. 233). The new convention also saw the formal introduction of

language pertaining to demand reduction. Signatory states were thus also obliged to "take all practicable measures for the prevention of abuse of psychotropic substances and for the early identification, treatment, education, after-care, rehabilitation and social reintegration of the persons involved" (United Nations, 1971, Article 20.1). This was a departure from what had traditionally been an almost exclusive focus on supply as the primary factor in economic and political calculations about illegal drug use. Nevertheless, most of the new convention was oriented to supply reduction and control, sustaining the general trajectory of international drug control established over the past century.

In the catalog of new substances that the 1971 Convention on Psychotropic Substances expanded to place under international control was dimethyltryptamine (DMT), one of the primary psychoactive components of ayahuasca. However, the treaty did not explicitly prohibit any plants containing DMT, such as the leaves of *Psychotria viridis*, which are a standard ingredient in prototypical ayahuasca brews, so there remained an interpretive question of whether ayahuasca constitutes a preparation of DMT. The 1971 convention also made provision for traditional indigenous spiritual practices in Article 32, Section 4, which allows states "on whose territory there are plants growing wild which contain psychotropic substances from among those in Schedule I and which are traditionally used by certain small, clearly determined groups in magical or religious rites . . . [to] make reservations concerning these plants" (United Nations, 1971). However, this clause applies only to indigenous populations and for plants native to a territory under a government's control that are grown for traditional ceremonial use. Furthermore, exceptions had to be registered in 1971 at the time of signing, which did not allow for future flexibility to accommodate novel or syncretistic entheogenic substance use, including cross-cultural uptake of ayahuasca drinking practices.

The increased use of illegal drugs in the 1970s in modern Western countries provided continued justification for pursuing international drug control. The United States, in particular, set an official policy course of "war on drugs" under President Richard Nixon that guided both the

<sup>&</sup>lt;sup>57</sup> Article 1(f) in the 1971 Convention defines "preparation" as: "i) Any solution or mixture, in whatever physical state, containing one or more psychotropic substances, or ii) One or more psychotropic substances in dosage form."

domestic and international directions for the next several decades (Bruun, Pan & Rexed, 1975). By the 1980s, evolution in consumer demand and corresponding production and distribution supply chains for illegal psychoactive substances reflected some of the broader sociological changes that were a consequence of increasing economic and cultural globalization. Cocaine, and its cheap smokable freebase form, crack, became the drug scare *du jour* in the 1980s, resulting in further perceived imperative among authorities to get tough on both users and dealers (Reinarman & Levine, 1997). Exacerbating this, the economic fallout from neo-liberal economic policies of governments in the 1980s and 1990s included an increasing gap between rich and poor (Smeeding, 2005), the latter of which disproportionately turned to illegal drugs for both solace and income opportunities (Fowles & Merva, 1996; Gruskin, Plafker & Smith-Estelle, 2001; Roberts, 1997). Criminal gangs increasingly came to dominate the illegal drug trade (Glenny, 2008), whose deepening entrenchment and continued growth led to another international treaty, the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.

With three international treaties in force by the 1990s (the 1961 Single Convention on Narcotic Drugs, the 1971 Convention on Psychotropic Substances, and the 1988 Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances), the international drug control regime was solidly entrenched (Andreas & Nadelmann, 2006). In a UN General Assembly Special Session in 1990, the decade of 1991-2000 was declared as the United Nations Decade against Drug Abuse. However, despite being under the auspices of the United Nations over the past several decades, international drug control has continued to be most directly influenced by the United States (along with a few key prohibitionist allies, such as Japan, Russia, and Sweden) and its ideological "war on drugs" approach to both domestic and foreign policy (Bewley-Taylor, 2003; Bullington, 2004). The American zero-tolerance stance against non-medical or otherwise illegal drug use has been exported into the international arena, resulting in the preposterously

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<sup>&</sup>lt;sup>58</sup> Gil Kerlikowske, the current United States' Director of the Office of National Drug Control Policy, or national "drug czar," officially renounced the "war on drugs" metaphor in May 2009 (Fields, 2009). However, aside from a new national HIV/AIDS strategy that acknowledges some merit in harm reduction interventions such as needle exchange (White House Office of National AIDS Policy, 2010), minor changes in sentencing guidelines to address discrepancies between penalties for possession of freebase crack vs. powder cocaine, and respect for states' powers to create medical marijuana policies, significant change in the overall bellicose nature of American federal drug policy and ancillary international relations has been difficult to discern.

ambitious political goal of realizing a "drug-free world." Canada's contribution to upholding the regime whose creation it substantially influenced in the mid-20<sup>th</sup> century is the 1996 *Controlled Drugs and Substances Act*, the history of which is discussed in greater detail in chapter 5. However, despite histrionic rhetoric at the annual UN Commission on Narcotic Drugs and a vast amount of fiscal and human resources directed towards extirpating the use and trade of illegal drugs, evidence overwhelmingly indicates that illegal drugs are cheaper, more varied, and more easily accessible than ever (United Nations Office on Drugs and Crime, 2009).

Critics of the international drug control regime point out that pursuing the goal of a "drug-free world" often entails subordinating other ones, such as disease prevention, human rights, security, development, and social justice (Barrett, Lines, Schleifer, Elliott & Bewley-Taylor, 2008; Farrell, 1998). The list of how these other goals can be at odds with the dominant international drug control agenda is long: the application of the death penalty against people accused of drug trafficking (in some cases, on June 26th, the UN's International Day Against Drug Abuse and Illicit Drug Trafficking) (Lines, 2007); extrajudicial killing of drug crime suspects (Human Rights Watch, 2004); cruel and inhuman treatment of people who use drugs, including the denial of essential health services such as evidence-based HIV, hepatitis C or overdose prevention measures (Jürgens, Csete, Amon, Baral & Beyrer, 2010); the gross under-deployment of opioid medications for pain management in parts of the world such as eastern Europe and the global south (Brennan, Carr & Cousins, 2007; Cherny, Baselga, de Conno & Radbruch, 2010; Lohman, 2009); and aerial spraying of industrial chemicals on crops, people and sensitive ecosystems to eradicate forbidden plants (Vargas, 2002). Although such morally questionable extremes have not as yet been applied to ayahuasca's constituent plants or to people who drink the brew, the logic of the drug war paradigm does nothing to preclude these kinds of actions and makes them an all too imaginable threat.

This chapter has provided a brief account of the human historical relationship with psychoactive substances and how various key cultural developments—including agriculture/animal husbandry,

<sup>&</sup>lt;sup>59</sup> To mark the opening of the 1998 General Assembly 20th Special Session, UN Secretary-General Kofi Annan declared: "It is time for every nation to say 'no' to drugs. It is time for all nations to say 'yes' to the challenge of working towards a drug-free world" (Annan, 1998). Presumably, alcohol, tobacco, caffeine and psychoactive pharmaceuticals—along with their manufacturers, advertisers, and distributors—were all to be part of this utopian future.

literacy, movable-type printing, experimental science and the advent of modernity—have impacted this relationship. From the earliest consumption of plants or plant-derived preparations, our species has demonstrated an enduring desire to alter consciousness with psychoactive compounds for social, spiritual, educational, recreational, and other non-medical purposes. However, with the advent of early modern communications, commerce and science, Euroamericans established an innovative public sphere that created new modes of governance, knowledge and economic relations. Subsequently, the social and economic changes accompanying the industrial revolution—as well as professionalization in medicine, teaching and policing—propelled moral reform movements in the 19<sup>th</sup> century with the aim of ending the trade and non-medical use of psychoactive substances such as alcohol and opium. While these impulses did lead to the gradual creation of a hegemonic international drug control regime over the 20<sup>th</sup> century, they manifestly did not produce the anticipated termination of non-medical psychoactive substance use. Rather, efforts at enforcing drug prohibition have spawned ancillary harms—such as widespread crime, disease and death—that many regard as much more insidious than the preventable or manageable impacts of drugs themselves. The drug control impulse has also fostered a peculiar discursive frame deeply entrenched in much of civil society, a drug war paradigm that seems to preclude ready comprehension, appreciation, and toleration of entheogenic practices such as ceremonial ayahuasca drinking. In the next chapter, I will explore how the drug war paradigm is manifest in dominant contemporary public and political discourses, and how it is challenged by ayahuasca's emergence from the Amazon.

### Chapter 4 – Discourses & the Drug War Paradigm

The regime of international drug prohibition has ideological underpinnings (i.e., basic convictions, philosophical assumptions and axiomatic beliefs) whose reach extends beyond just influencing the legal statutes and justice systems of countries that are signatories to the conventions. <sup>60</sup> I use the phrase *drug war paradigm* to refer to a general belief system that holds some kinds of psychoactive substance use (encompassing both the substances and users) as morally untenable, thereby justifying surveillance, intimidation, arrest, imprisonment, denials of human rights, and other extreme measures of social control. In describing this ideological basis as a "paradigm," I am explicitly invoking Kuhn's (1962) postulation of a shared epistemic model in a domain of knowledge, which guides not only scientific research, but also public policy (Fischer, 2003, p. 96). Of particular importance to my research is the extent to which the drug war paradigm extends from dominant public and political discourses into the domain of the academy—the institution of authorized knowledge production in the modern world—and by circular extension back into the domains of health and education research, policy and practice. In this way, the exploration of potential educational or therapeutic benefits of some illegal drugs is impeded by various constraints on the research imaginations and activities of academics, which in turn sustains and reinforces a collective unwillingness of policy makers to consider possible alternatives to the drug policy status quo. As I will show in chapter 5, this state of affairs is evident in the decision-making of Health Canada with respect to Céu do Montreal's request for a Section 56 exemption to allow its ceremonial ayahuasca drinking practices. In this chapter, I offer some further elucidation of the drug war paradigm, including how it simultaneously derives from and perpetuates dominant public, professional, and political discourses and conceptualizations about psychoactive substances, and the implications this has for ayahuasca policy and its framing.

Illuminating the drug war paradigm involves engaging in what Ian Hacking (2002) describes as *historical ontology*. Ontology is a branch of metaphysics that analyzes the existence and categorization of reality, querying what exists and how it should be classified. Historical

<sup>&</sup>lt;sup>60</sup> Cohen (2003) argues that the drug war paradigm functions much like religious dogma, that the international drug control treaties "have acquired a patina of intrinsic and unquestioned value and they have attracted a clique of true believers and proselytes who promote them" (p. 213).

ontology, a term Hacking borrows from Foucault (1984), is an exercise in tracing how kinds of things are constituted historically and, ultimately, currently through the enduring dynamic of social or discursive constructions. Social constructs are entities that have been established through the linguistic and conceptual conventions of a particular culture or society (Hacking, 1999). The social constructionist perspective of thinkers such as Foucault and Hacking challenges us to look beyond the taken-for-granted categories in our linguistic representations of the world, and to query whether or how things might be otherwise (Burr, 2003). Engaging in a historical ontology of drugs requires probing into how the categorization of psychoactive substances reflects tacit (yet contingent) cultural understandings and agreement about their nature. The question of what a "drug" is, therefore, is foremost an ontological question, and the answer one posits implicitly affects all consequent philosophical, investigative and policy considerations on the matter (Seddon, 2010). This particular ontological question is especially pertinent to an analysis of ayahuasca and similar entheogens, as the people who use them and government authorities differ as to whether these substances are in fact "drugs." Indeed, it is common for ayahuasca drinkers to assert that ayahuasca is not a "drug" (Goldman qtd. in Ball, 2009b; Sting, 2003, p. 8; Vasquez, 1998, p. 179), a claim whose ostensible contradiction of common sense warrants closer scrutiny of its intended meaning.

# 4.1 – What is a "Drug"?

The noun "drug" in the English language is polysemic: it is a lexical item with several distinct meanings or referents, depending on the specific discursive context in which it is used. These different meanings and the semantic confusions they generate are apparent not only in the casual or lay uses of the word, but also in authoritative academic, medical, legal and policy discourses. Seldom are the distinctions between the various meanings of "drug" articulated or made explicit, even in otherwise carefully considered discussions on the subject, and this has important implications for the decisions about psychoactive substances made by policy makers. In order to clarify my discussion about ayahuasca, I want to distinguish three separate meanings of the noun "drug" in contemporary public and political discourses—by using numerical subscript markers, following Alexander's approach to distinguishing different meanings of "addiction" (2008,

chapter 2)—and illustrate how these distinctions affect policy responses to psychoactive substances generally and ayahuasca in particular. <sup>61</sup>

The oldest and broadest meaning of the word "drug," here referred to as drug<sub>1</sub>, is a chemical substance other than a food that alters metabolic or other functions when absorbed into the body of a living organism. In most respects, drug<sub>1</sub> is synonymous with "medicine," and it is this meaning of "drug" that is commonly understood when the word is used in phrases such as "drug" store," "drug company," "wonder drug," or "pharmaceutical drug." With the meaning of drug, the attribution of psychoactivity is indeterminate or irrelevant, as it is the general bodily or health effects that are important rather than whether or not an altered state of consciousness results from its ingestion. Common examples of drug<sub>1</sub> are numerous, and include formulations of substances such as acetylsalicylic acid (Aspirin<sup>TM</sup>, to treat mild pain), atorvastatin (Lipitor<sup>TM</sup>, to lower cholesterol), and amlodipine (Norvasc<sup>TM</sup>, to treat hypertension), all of which are not psychoactive and used exclusively for medical purposes; however, drug<sub>1</sub> may also denote psychoactive substances that are recognized by modern medical authorities as having therapeutic application, such as fluoxetine (Prozac<sup>TM</sup>), diazepam (Valium<sup>TM</sup>), tetrahydrocannabinol (Marinol<sup>TM</sup>), amphetamines (Adderall<sup>TM</sup>) and methadone. In the early 20<sup>th</sup> century, when the common meaning of the word "drug" in public and political discourses was becoming increasingly ambiguous due to its association with criminalized psychoactive substances, professional pharmacists in the United States engaged in a concerted public relations campaign (largely directed at editors of newspapers and other print media) to preserve drug<sub>1</sub> as the sole meaning of "drug" (Parascandola, 1995). The fact that they were unsuccessful is apparent in the continued ambiguity of the word "drug" today, whose negative connotations are embedded in the sense of drug<sub>3</sub>, as discussed below.

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<sup>61</sup> These three different meanings of "drug" correspond to ones identified in the Oxford English Dictionary (online edition). Likewise, the World Health Organization, in its online "lexicon of alcohol and drug terms," acknowledges three equivalent separate meanings, but does not attempt to address the implications these distinctions may have for sound public policy. See the entry for "drug" at: <a href="http://www.who.int/substance\_abuse/terminology/who\_lexicon/en/62">http://www.who.int/substance\_abuse/terminology/who\_lexicon/en/62</a> Insights from a sub-discipline of linguistics, called corpus linguistics, show how the semantic content of a word can shift based on associative factors such as social context, connotation or collocation—the other words and phrases immediately adjacent to a word (Leech, 1981; McRoy, 1992). For example, the word "drug" connotes very different referents depending on whether it is preceded by the words "miracle" or "hard," or is followed by the words "store" or "dealer." The first terms in these disjunctive pairs invoke the concept medicine, whereas the latter are unambiguously illegal drugs.

Another meaning of "drug," or drug<sub>2</sub> in this discussion, is a chemical substance other than a food that alters consciousness when absorbed into the body of a human being. When the word "drug" is used to mean drug<sub>2</sub>, the referent is a psychoactive substance, regardless of its medical utility or legal status. The semantic scope of drug<sub>2</sub> includes some medicines (or drugs<sub>1</sub>), such as those listed in the preceding paragraph, but also other psychoactive substances typically used for nonmedical purposes, both legal and illegal. When people concede alcohol, tobacco or coffee to be "drugs"—which, until relatively recently, has been rare—what they mean is drug<sub>2</sub>. The concept of drug<sub>2</sub> does not have a long history, according to Parascandola (1995, pp. 158-159), who suggests that the linguistic process of conversion happened to the verb form of "drug" (i.e., to drug someone) around the turn of the 19<sup>th</sup> century, which was a much older syntactic usage of the word. The verb "drug" denotes the action of surreptitiously giving someone a drug<sub>2</sub> (i.e., a psychoactive substance) to intentionally alter their consciousness, yet historically, and still typically today, the verb form of "drug" is used without any necessary implied connotation as to the legal status of the substance (although such action itself may be criminal). The meaning of drug<sub>2</sub> is also metaphorically implicit in the concept of "digital drugs," or electronic sound files with drug-jargon names and distributed online, listening to which is promoted as a legal way to alter consciousness.63

The third primary meaning of "drug," or drug<sub>3</sub>, refers to a chemical substance or plant that alters human consciousness and has been deemed subject to the most rigorous forms of criminalization by the international drug control regime (which, as should be clear, was not established to prohibit drugs<sub>1</sub> or drugs<sub>2</sub> *per se*). When the word "drug" is collocated with words such as "dealer," "trafficking," and "war," drug<sub>3</sub> is the intended meaning. This sense of "drug" is relatively recent, emerging at the end of the 19<sup>th</sup> century with the advent of the movement towards international drug control, and despite concerns by pharmacists in the United States (known commonly as "druggists") at the time (Parascandola, 1995), was used synonymously with the now more anachronistic terms "dope" or "narcotic." Today, the meaning of drug<sub>3</sub> is prevalent when the word "drug" is used, although audiences are typically expected to distinguish

<sup>&</sup>lt;sup>63</sup> In early 2010, youths began posting YouTube videos of themselves listening to these sounds and reacting to their purported capacity to alter consciousness. Predictably, news media picked up the story and reported on concerns among parents, teachers and police officers, generating a curious digital-age iteration of the classic demon drug scare (Colberg, 2010).

it from its polyseme, drug<sub>1</sub>, through rhetorical context. In the mass media, the meaning of drug<sub>3</sub> is intended when the term "drug" is used as a vague metonym for specific illegal substances.<sup>64</sup> The prototypical examples of drug<sub>3</sub> are opium and its derivatives such as morphine, coca and cocaine, and cannabis, as well as psychedelics such as LSD, psilocybin and mescaline. The common phrase "alcohol and drugs"—which implies the former is somehow categorically distinct from the latter—illustrates the conceptual bifurcation of drug<sub>2</sub> from drug<sub>3</sub> in today's public and political discourses.

The preceding discussion of the polysemic English word "drug" and its different meanings in contemporary dominant discourses has been a prerequisite tangent into semantics before taking up the ontological questions of what exactly a "drug" is and whether ayahuasca constitutes an exemplar. Next, I want to consider whether the word "drug" refers to a category that is a natural kind, or a class of things in the natural world (such as minerals, quasars, or species of organisms) that exist independently of human classifications about them (Hacking, 1990). In doing so, it is important to note that at least two kinds of scientific inquiry intersect in the study of "drugs": natural sciences on the one hand (e.g., chemistry, botany, or pharmacology), and human or social sciences on the other (psychology, sociology or policy studies). Furthermore, "the objects of the social sciences . . . are constituted by a historical process, while the objects of the natural sciences, particular experimental apparatus, are created in time, but, in some sense, they are not constituted historically" (Hacking, 2002, p. 40). Thus, the scientific method has proved to be very epistemologically useful when applied to the natural world as a means of picking out constituent features of the material universe—things such as elements, molecules and biological species; however, its application to things relating to human behaviour, as Foucault's insights make apparent, is fraught with the interests of morality and power that are a perennial concern for our species (Hacking, 1999). Thus, although it can be said of many areas of academic inquiry, in the study of psychoactive substances in particular there has often been an unnoticed or unacknowledged overlap between facts and values. This has not only impacted the explanatory and predictive power of research on human psychoactive substance use, but has also significantly

<sup>&</sup>lt;sup>64</sup> For example, when news media report that someone was in possession or under the influence of "drugs," they most certainly do not mean drug<sub>1</sub>, in which case it would hardly be newsworthy, or drug<sub>2</sub>, in which case they would likely either not mention it at all—if it were coffee or tobacco—or specify it as alcohol or a legitimately prescribed medication.

affected its political and policy implications, often to the detriment of human rights and social justice.

Based on the preceding discussion of the various senses of the word "drug," I contend that the referent of drug<sub>2</sub>—or what I will henceforth call "psychoactive substances" for clarity—is an ontological category that is a natural kind. In other words, psychoactive substances are a category of plants and chemical compounds that, when introduced to the human nervous system, provoke a neurophysiological reaction and concomitant alteration of consciousness or mood. How these substance-induced altered states of consciousness manifest in particular behavioural changes or subjective interpretations vary considerably across cultures (Coomber & South, 2004; Weil, 1980; Zinberg, 1984). However, their effect on the brain and production of *some* kind of psychological change is for the most part universal, which is what allows us to intersubjectively recognize and categorize them as psychoactive substances. The same, however, cannot be said of drug<sub>1</sub> or drug<sub>3</sub>, as these are both more ambiguous and unstable categories—social constructions which vary across time and place, and which depend on prevailing professional medical or legal opinions for their semantic scope.

A good way to illustrate why the natural-kind category of "psychoactive substance" is a preferable (i.e., more ontologically secure) concept for policy analysis than the ambiguous term "drug" is to consider, as a heuristic tool, a tripartite schema onto which these categories can be mapped (see Table 1, next page). This schema represents a stereotypology of the three predominant social constructions of psychoactive substances in today's public and political discourses—drugs, non-drugs and medicines—which implicitly reflect the 20<sup>th</sup> century drug war paradigm. As should be clear from my discussion about the word "drug" and its three possible meanings, the stereotype of drug is identical to drug<sub>3</sub>, medicine is the subset of drug<sub>1</sub> that are psychoactive substances approved for medical uses, and non-drugs are the subset of drugs<sub>2</sub> that are not illegal. Following a brief exposition of the schema, we will consider how and why ayahuasca resists being easily mapped onto it, and what this reveals about the drug war paradigm's inherent conceptual unsoundness.

<sup>&</sup>lt;sup>65</sup> In refuting a strict position on philosophical nominalism, Hacking asserts: "I think that many categories come from nature, not from the human mind" (2002, p. 106). I agree, and suggest that the term "psychoactive substance" refers more precisely to the category typically intended by the drug<sub>2</sub> sense of the polysemic word "drug."

Table 1: Schema of Modern Stereotypes of Psychoactive Substances		
Non-drugs	Medicines	Drugs
( = drugs <sub>2</sub> , legal psychoactive substances)	( = drugs <sub>1</sub> , regulated psychoactive substances)	( = drugs <sub>3</sub> , illegal psychoactive substances)
Psychoactive substances not commonly considered drugs or medicines (e.g., alcohol, caffeine, nicotine, refined sugar)	Psychoactive substances permitted for restricted and regimented use; category inclusion designated by modern biomedicine regime	Psychoactive substances deemed inherently bad or dangerous; little or no distinction made among them (e.g., coca, opium, cannabis, LSD, DMT)
Use is condoned by the state, promoted by corporations, and permitted a matter of personal choice (by adults for alcohol and tobacco)	Use is promoted by the state and private corporations, but only within a prescribed medical regimen requiring a physician's prescription	Use is generally prohibited, and decision to use criminalized or pathologized as "abuse" or addiction
Permitted for corporations to manufacture, market and distribute; CEOs socially and financially rewarded	Permitted for corporations to manufacture, market and distribute; CEOs socially and financially rewarded	Possession, production and/or distribution categorically prohibited; "dealers" demonized, criminalized and penalized
Retail distribution may be conducted by adults, typically without special training or licensing	Retail distribution may be conducted only by trained and licensed professional pharmacists	Retail distribution     conducted by outlaws     (often minors) without     special training or     licensing
Pleasure permitted and tolerated or celebrated	Pleasure pathologized and contra-indicated as "euphoria"	Pleasure pathologized, moralized and forbidden
Gradually being perceived as akin to <i>drugs</i> (i.e., psychoactive substances warranting restriction)	Tendency to pathologize what they can affect (i.e., reverse engineering of illness and etiology)	Imbued with agency (i.e., capacity to override human free will)

My preferred term for the first category is *non-drugs*, because modern Western popular and political discourses about psychoactive substances have not traditionally admitted its constituent members as types of drugs, in the sense of drug<sub>3</sub>. Examples of non-drugs include alcoholic beverages, xanthinated beverages, tobacco and cacao products, and in some respects sugar.<sup>66</sup> I postulate the category *non-drugs* to conceptually designate what Courtwright (2005) observes as a curious phenomenon of the 20<sup>th</sup> century: "in both western medicine and in western popular culture, alcohol and tobacco effectively split off from other drugs, to the point that the ordinary understanding of the word 'drugs' came to exclude, rather than include, these substances" (p. 110). The broader perspective of the anthropology of consumption is useful in reflecting on nondrugs and the presumed distinction between foods and drugs, as historical and cross-cultural comparative studies show these categories to be social constructions that are by no means selfevident or stable (Sherratt, 2007b). Indeed, one of the central issues in 19<sup>th</sup> century temperance debates was whether or not alcohol was a food (Blair, 1888). Modern intuitions dictate that chocolate, coffee, and tea are more obviously foods than psychoactive substances (especially in comparison with another *non-drug*, tobacco, which is gradually shifting in public perception as being less easily distinguishable from a *drug*). This perhaps illustrates the legacy of the early modern appetites for xanthinated beverages on today's common sense perceptions of such commodities. By contrast, although coca has been determined by the international drug control regime to be unequivocally a drug, its leaves have significant nutritional value and can aid digestion (Duke, Aulik & Plowman, 1975; Henman & Metaal, 2009), which may have contributed to the reverence they were accorded among Andean indigenous peoples.

With respect to modern drug policy, governments accept that people (in some cases, children as well as adults) may use *non-drug* psychoactive substances responsibly, that the decision whether to do so is a matter of personal consumer choice. At other times and places, plants that are today stereotyped as *drugs*—such as opium, coca, cannabis—have been treated as something equivalent to *non-drugs* (i.e., as substances for unproblematic enjoyment) (Rudgley, 1994; Schivelbusch, 1992). Even today, it is within this curious semantic space that sacramental use of a psychoactive substance such as peyote has been legitimated by the U.S. government, which

<sup>&</sup>lt;sup>66</sup> The most recent example of the "non-drug" status of a potent psychoactive preparation is the regulatory classification of highly-caffeinated "energy drinks" as herbal dietary supplements or natural health products in the United States and Canada (Reissig, Strain & Griffiths, 2009).

deems the entheogenic practices of the Native American Church as "non-drug use" of the otherwise illegal *drug* peyote (Parker, 2001). Conversely, although it is a *non-drug* in most parts of the world, alcohol is regarded as a noxious substance and prohibited in some Muslim states (Baashar, 1981; Michalak & Trocki, 2006); and tobacco has moved in a somewhat similar direction in many parts of the world, most notably in Bhutan, where the government has instituted the world's first national ban on the sale of tobacco (Koh, Joosens & Connolly, 2007). <sup>67</sup> By contrast, policy structures favoured by the neo-liberal capitalist imperative allow, indeed oblige, corporations in the business of producing *non-drug* psychoactive substances to maximize profits by cultivating, processing, distributing and marketing them (Bakan, 2004; Chen & Winder, 1990; Talbot, 1997). Despite some *post facto* manoeuvring within policy discourses over the 20<sup>th</sup> century, relative health harms have not until quite recently been a significant factor in either legal or philosophical considerations of what distinguishes a *drug* from a *non-drug* psychoactive substance.

In contradistinction to *non-drugs* is the category *drug* (in the sense of drug<sub>3</sub>), which includes substances such as cannabis, coca leaf and cocaine, opium poppies and heroin, and LSD or DMT. As noted above, this category has been designated by other conceptually confused and ambiguous terms—such as "narcotic" and "dope"—in medical, legal, and educational discourses in the past (Adams, 1937; Middlemiss, 1926; see also Parascandola, 1995). Nevertheless, although pharmacological knowledge about the diverse natures and properties of the different kinds of psychoactive substances in this category has grown substantially, it remains the case that in dominant public, political and even professional discourses about *drugs*, "use is use . . . and there is little distinction to be made between the use of one kind of substance over another" (Moore, 2004, p. 421; see also Zinberg & Robertson, 1972, pp. 37-42). As a result, substances as diverse as cannabis, cocaine and heroin serve as indistinguishable prototypes, or representative examples (Lakoff, 1987; Rosch, 1973), of the category "drug"; in the terminology of the U.S. National Institute on Drug Abuse, they are characterized simply and amorphously as "drugs of

<sup>&</sup>lt;sup>67</sup> In the past decade, the World Health Organization led development of a global Framework Convention on Tobacco Control (Shibuya et al., 2003), and it is currently engaging member states in discussions on a similar Framework Convention on Alcohol Control (Casswell & Thamarangsi, 2009). However, these initiatives do not challenge the fundamental inconsistencies of the drug war paradigm—most notably, they do not criminalize or prohibit the production, distribution or use of these substances.

abuse."<sup>68</sup> Policies about *drugs* reflect an *a priori* belief that they cannot be used responsibly, except insofar as they may have limited medical or scientific applications, and illicit use is generally criminalized or pathologized (as either abuse or addiction) according to the operative conceptual metaphor in a particular discourse situation, which I will say more about below. The production and distribution of most psychoactive substances in this class is prohibited, except within the highly restricted domain of the industrial pharmaceutical sector, and those who do engage in their unauthorized trade, rather than being celebrated for their entrepreneurial capitalist spirit, are maligned as "dealers" and "pushers" (Coomber, 2006).

Finally, in this general schema of modern stereotypes for psychoactive substances, between (although sometimes overlapping) the polar categories of *non-drugs* and *drugs*, is a third category, medicine. As with the other two, medicine is a social construction that reflects the power dynamics of a particular time and place. Put another way, it does not reflect a natural kind as defined above—there are no properties inherent in a substance that allow one to infer that it is, or should be, regarded as a *medicine*. Rather, depending on the cultural and discursive structures within which it operates—for example whether in rural Latin American folk healing, traditional Chinese herbalism, or Canadian acute care hospital practices—what is categorized as a medicine can be quite different. Furthermore, medical anthropological research shows that discourses can affect the therapeutic impact of a substance in both the psychological and somatic domains (Harrington, 2008), and this is especially the case if it is psychoactive; in other words, the therapeutic properties of a psychoactive substance cannot be reduced simply to its pharmacokinetic action. In dominant modern Western discourses, medicines reflect the economic and political imperatives of professional class interests and the neo-liberal capitalist state—to be more explicit, the interests of biomedical physicians, the pharmaceutical industry, and government bureaucracies, among others.

A discursive history of *medicines* shows that at different times and places their legitimization and delegitimization as remedies has varied according to cultural and professional opinions, but not necessarily to any change in the nature of the substance itself. For example, many of today's common *non-drugs*—such as coffee, cacao, tobacco and distilled alcohol—were introduced into

<sup>&</sup>lt;sup>68</sup> National Institute on Drug Abuse (2010); see also Beyer, Drummer & Maurer (2009)

Western culture originally as medicines (Cowan, 2005; Dillinger, et al., 2000; Gately, 2001; J. Warner, 2002). Likewise, many currently illegal drugs have been considered vital medicines in different times and places, but have lost that status (often not because of sound scientific research, but instead in its flagrant absence), as biomedicine became intertwined with the international drug control regime and the drug war paradigm. For example, although cannabis had been used as a medicine in many cultures throughout history, it was universally excoriated as a drug in the 20<sup>th</sup> century by the international drug control regime, and has only recently started to make inroads to recovering its former status as a medicine (Costa, 2007; Lucas, 2008; Mills, 2003; Russo, 2007). Lysergic acid diethylamide (LSD) was a promising psychiatric medicine in the 1950s and early 1960s, but when its non-medical use became headline news and the subject of moral panic, it quickly became a demonized drug with no authorized medical utility and the object of political stigma that repressed even considering scientific research into its therapeutic potential (Dyck, 2005; Sessa, 2005; Littlefield, 2002). Methylenedioxymethamphetamine, or MDMA (more popularly known as "ecstasy"), was used therapeutically in underground circles the 1970s, but was declared a Schedule I drug by the U.S. Drug Enforcement Administration in 1980s (Doblin, 2000, pp. 61-64); however, perseverance by activists and researchers has led to scientific studies showing therapeutic benefits (Mithoefer, Wagner, Mithoefer, Jerome & Doblin, 2010), so MDMA may be poised for approval as a *medicine* in the United States and elsewhere (Morris, 2008). These examples demonstrate that what makes a psychoactive a substance a medicine or not seems to have as much or more to do with power interests than hypothesized or historically-grounded evidence of therapeutic efficacy.

As with *non-drugs*, corporations are permitted to manufacture, distribute, and market psychoactive substances that biomedical and other power interests recognize as *medicines*, although with ostensibly tight controls.<sup>69</sup> In the past few decades, the corporate profiteering agenda of the pharmaceutical industry and the techno-scientific means in its service have had a curious self-reflexive effect on the category *medicine*, as there has been a tendency for pharmaceutical companies to reverse-engineer illness and etiology through analysis of molecular

<sup>&</sup>lt;sup>69</sup> The strictness or effectiveness of such marketing controls is a matter for debate; for example, Purdue Pharma L.P.—whose patented version of the powerful opioid oxycodone (brand-named OxyContin<sup>TM</sup>, also known as "hillbilly heroin") accounts for \$1.6 billion dollars in annual retail sales in the United States alone—has been accused of "aggressively promoting" this product (Jayawant & Balkrishnan, 2005, p. 79).

creations. This process involves creating and patenting a novel psychoactive substance, testing it to see what it does both neurophysiologically and psychologically, and then proposing a new pathology for which it can be an effective (and of course lucrative) treatment (Angell, 2004; Moynihan & Cassels, 2005). Often the "therapeutic" applications of such *medicines* reinforces (in some cases, coerces) conformity to societal standards of behaviour (Szasz, 2007). Furthermore, physicians are persistently targeted by pharmaceutical industry representatives, who encourage them—often with accompanying samples and gifts, but without complete information about safety and risk—to prescribe proprietary *medicines* (Lexchin, 1997; Wazana, 2000).

In order to legitimately use most psychoactive substances that have been designated *medicines*, one must do so only according to a regimen prescribed by a licensed physician. To do otherwise—with the exception of the context of authorized scientific research—is to engage in "abuse," a moralistically pejorative term ubiquitous in professional, public and political discourses (although in some cases substituted with the euphemism "misuse"). The word "abuse" has a specialized clinical meaning in medical discourses by virtue of its inclusion as a diagnostic term in the American Psychiatric Association's Diagnostic and Statistical Manual IV (or DSM-IV) (2000). However, the DSM-IV's inclusion of recurrent legal consequences as a diagnostic criterion sufficient for a diagnosis of "abuse" creates an odd circularity, suggesting that any repeated use of an illegal drug is "abuse" if an individual is unlucky enough to be arrested for their transgression more than once. 70 By contrast, Health Canada has its own definition for the term "abuse"—"user initiated, non-therapeutic self-administration [of a substance that has central nervous system activity]" (2007b, section 1)—which is consistent with the international drug control regime's proscription of any non-medical or non-scientific uses of certain kinds of psychoactive substances, and would seem to include practices such as ceremonial ayahuasca drinking for spiritual or similar learning purposes.

The word "abuse" has significant implications for a discourse analysis of psychoactive substances and the modern drug war paradigm. "Abuse" in its noun form functions as a semantic

<sup>&</sup>lt;sup>70</sup> It is important to note that in Canada, and particularly the United States, people of colour are more likely to be apprehended, arrested, charged, convicted and imprisoned for possession of illegal drugs, even though white people use them at equivalent or even higher rates (Mosher, 2001; Provine, 2007; Roberts & Doob, 1997).

binary antonym to the noun "use," which means these two terms delineate mutually exclusive and jointly exhaustive categories for the consumption of psychoactive substances. In other words, any instance of substance use is necessarily either "use" or "abuse" (and thus either acceptable or unacceptable), a de facto discursive frame that positions psychoactive substance use in black-and-white terms, with no room for ambiguity or grey areas (Janicki, 2006). By contrast, a "spectrum of psychoactive substance use" conceptual diagram I have proposed adopted by the British Columbia Ministry of Health Services (2010), the City of Vancouver (MacPherson, Mulla, Richardson & Beer, 2005), and the Health Officers Council of British Columbia (2005)—takes the noun "use" as a neutral generic category, and allows for modification with adjectives such as "beneficial," "non-problematic," "problematic," or "chronic dependent." Although this may appear to be a relatively insignificant policy manoeuvre, it arguably represents a much more nuanced way to conceive of psychoactive substance use than the prevailing use/abuse binary discursive frame. Incidentally, the City of Vancouver's 2005 drug policy document identifies sacramental ayahuasca drinking as an example of beneficial substance use (MacPherson, Mulla, Richardson & Beer, 2005, p. 15), to my knowledge the first instance of ayahuasca's explicit inclusion in a public health policy document.

The stereotypology of psychoactive substances, and the schema of *drugs*, *non-drugs*, and *medicines*, helps illustrate how today's dominant public and political (and often, by extension, academic and professional) discourses are unable to provide a coherently tenable conceptual foundation for understanding and addressing entheogenic practices such as ceremonial ayahuasca drinking. It is important to keep in mind that "classifications . . . exist [not] only in the empty space of language but in institutions, practices, material interactions with things and other people" (Hacking, 1999, p. 31). Because ayahuasca contains DMT—a substance that has been classified as Schedule 1 according to the 1971 Convention on Psychotropic Substances (United Nations, 1971)—the brew is immediately understood by some governments, including Canadian and United States drug control authorities, as a "preparation" of a *drug*, which by definition is

of a dangerous nature posing a serious risk to public health, and of doubtful, if any, therapeutic use. Controls over these [Schedule 1] drugs are of the strictest nature, and include special provisions . . . for very firm controls to limit their use chiefly to research. (Rexed, et al, 1986, p. 36)

Although what little scientific research has been done on ayahuasca and its potential health benefits or harms in various contexts suggests that for most people who drink it in ritual settings it is benign or health-promoting (Fábregas et al., 2010; Grob, et al., 1996; Halpern, Sherwood, Passie, Blackwell & Ruttenber, 2008; Santos, Landeira-Fernandez, Strassman, Motta & Cruz, 2007), the powerful discourses of the international drug control regime and its underlying drug war paradigm are incapable of representing the brew as anything other than an unequivocally bad, illegal *drug*. Some deeper consideration of the discursive foundations of this stereotype—specifically, looking carefully at the metaphors that operate in the language we use to talk about certain kinds of psychoactive substances—reveals how our language implicitly conveys ideological assumptions, which may not provide sound or optimal foundations for public policy.

### 4.2 – Drug Metaphors

Metaphor (deriving from Greek roots, "carry across") is a linguistic trope, or figure of speech, that juxtaposes two unlike things in order to illuminate one of them through association or resemblance. Once considered intellectually vulgar and a vehicle for dissembling, metaphors have been rehabilitated through research in disciplines such as cognitive science and psycholinguistics, which have provided insights into how integral these kinds of linguistic forms are for semantics and thought. Metaphors are now understood to be a fundamental component of human cognition, linking the abstract to the concrete. Their ideological force is noted by Lakoff and Johnson, who assert that "[metaphors] play a central role in the construction of social and political reality" (1980, p. 159). In the discursive realm of public policy, Schön (1993) argues that "generative metaphors" are tropes that can impose significant analytical constraints on framing policy solutions to intractable social problems. This is true as much in the arena of drug policy as any other, where we can recognize a number of common metaphors applied to certain psychoactive substances and their use in contemporary public, medical and political discourses (Montagne, 1988; see also van der Geest & White, 1989). For the purposes of a discursive history of the modern drug war paradigm, I identify two dominant metaphors that have prevailed since at least the 18<sup>th</sup> century: "drugs as malevolent agents" and "drugs as pathogens." Each of these informs competing, yet curiously complementary, systems of social control over people who use psychoactive substances illicitly, and together they have been the primary scaffolding for the definition of the modern drug policy problem and continue to inform it today (Sharp,

1994). To the degree that ayahuasca is cast as an illegal *drug*—i.e., a preparation of DMT—contemporary policy responses to the Amazonian brew are implicated in the conceptual frames and consequent limitations of these dominant drug metaphors.

The primary metaphor implicit in the discourses of the international drug control regime and many individual governments' national drug policies is that of "drugs as malevolent agents." By this conceptualization, a substance is understood as a kind of intrinsically evil force, like a demon or wild creature, with its own nefarious volition and a capability of subjugating or overriding the free will of weak-minded or immoral individuals. This metaphor is evident early in modern public discourses on psychoactive substance use, such as in this couplet of Reverend James Townley's engraved on Hogarth's 1751 print, "Gin Lane": "Gin, cursed fiend, with fury fraught, makes human race a prey" (qtd. in Porter, 1985, p. 389). Originally applied to distilled spirits in the 18<sup>th</sup> century, the "drugs as malevolent agents" metaphor was extended from alcohol to opium in the 19<sup>th</sup> century. By the early 20<sup>th</sup> century, it was a common trope not just in the tracts, pamphlets and educational materials of the temperance and anti-opium movements, but in broader public, professional and political discourses (Parascandola, 1995). 71 For example, in one popular book on opium from the period (Graham-Mulhall, 1926), the author alarmingly asserts that "these sinister drug agents . . . having assumed the air of some merciful spirit on earth, . . . [are] in reality mere satanic emissaries of disguise" (Graham-Mulhall qtd. in Speaker, 2001, p. 597). The presumed malign nature of certain psychoactive substances was also evident from their associations with particular non-European ethnic groups, justification for which was provided through social Darwinist explanations about deleterious effects on physical and psychological health, intelligence, productivity, prosperity and sexual conduct.<sup>72</sup> Over the 20<sup>th</sup> century, various different substances were successively demonized in mass news media, using rhetorical techniques that recycled from previous drug scares exaggerated claims about their supposed

<sup>&</sup>lt;sup>71</sup> According to Parascandola, in the early 20<sup>th</sup> century in the United States, "the public was frequently exposed to newspaper headlines and stories in popular magazines about the drug evil and drug fiends" (1995, p. 160). For more specific examples of the kind of rhetoric common in English-language public discourse during the early phase of modern drug control efforts, see Speaker (2001; 2002).

The Stereotypical associations in North American public and political discourses existed between Chinese and opium, Mexicans and marijuana, Andean Indians and coca, African Americans and cocaine, Native Americans and peyote, and non-Anglo Europeans and alcohol (Carstairs, 1999; Cohen, 2006; Manderson, 1999; Provine, 2007). Regardless of what basis these associations had in fact, they were influentially promoted and widely circulated in mainstream discourses in the early 20<sup>th</sup> century and still resonate today. It seems fair to say that the modern war on drugs is inherently racist in both its early origins and its current application (see footnote 70 above).

physiological, psychological, social and criminogenic effects (Reinarman, 1994). By the 1990s, most of the states at the UN's Commission on Narcotic Drugs (and all of the most powerful ones, led by the United States) used rhetoric that explicitly deployed or implicitly reflected the "malevolent agents" metaphor (using terms such as "scourge," "menace" or "monster" to describe the perceived world drug problem) (Room, 1999).

The metaphor of "drugs as malevolent agents" implies that the use of a psychoactive substance is a moral transgression, and the people who engage in it weak or wicked, having succumbed to temptation and put themselves in danger of enslavement. Embedded in this metaphor is the idea that the drug itself is a diabolical force with talismanic or magical power, whereby even being in its proximity is dangerous, simple possession is reprehensible, trafficking is nefarious, and all such transgressions merit swift and forceful preventive or punitive intervention. Imprisonment, isolation, banishment, or other forcible confinement or exclusion are—by logical implication and, in many jurisdictions, conventional practice—appropriate responses to a person who transgresses legal or moral codes with offences involving proscribed psychoactive substances. Despite their being inanimate objects, illegal drugs seized by police are routinely displayed in press conferences to serve as a symbolic spectacle of conquest over the adversary, in a manner not dissimilar to bounty hunter displays of captured or killed man-eating beasts, or soldiers' presiding victorious over a vanquished foe. The "drugs as malevolent agents" metaphor continues to inform dominant public and political discourses today, and serves as the primary policy frame for a range of coercive or punitive policies and practices, including imprisonment, fines, expulsion from school, denial of employment, and in some countries corporal or capital punishments.

The rival metaphor in contemporary constructions of drug policy is one drawn from medical and public health discourses: "drugs as pathogens." By this conceptualization, the substance is equated to a biological pathogen, such as a virus or bacteria, to which both individuals and populations are potentially vulnerable. Accordingly, it constructs the person who uses drugs as sick and in need of treatment (Jellinek, 1960; Lart, 1998; Reinarman, 2005a), by coercion, if necessary (Leukefeld & Tims, 1988; Stevens, et al., 2005; Urbanowski, 2010; Wild, 2006). Like the "drugs as malevolent agents" metaphor, discursive constructions that impute certain

psychoactive substances as pathogenic have their origins in the 18<sup>th</sup> century. Although originally applied exclusively to intemperate or chronic dependent alcohol use, the disease model of addiction has broadened to encompass various instances or patterns of psychoactive substance use that are labeled "abuse" (discussed above), a social construction of deviance that is objectively indistinguishable from use *per se*. A paradigmatic example of the expanded scope of the "drugs as pathogens" metaphor is evident in the characterization of the popular use of psychedelics in the early 1970s as a "plague," for which "philosophical and spiritual preoccupation" was identified as a defining clinical symptom (Donlon, 1971, p. 475).

Today, the "drugs as pathogens" metaphor supports a vast industry of medical, public health, and prevention research and practice professionals. Drawing on the discourses of hygiene and disease, this metaphor is evident in the use of terms such as "clean" to describe individual abstinence (Weinberg, 2000). Children, in particular, are conceived of as "at risk" of succumbing to the pathogenic nature of drugs (Brown & D'Emidio-Caston, 1995); thus, prevention education is prescribed as a form of inoculation in schools, <sup>73</sup> with best practice recommendations emphasizing follow-up programs as "boosters" (Cuijpers, 2002; Tobler & Stratton, 1997). To the same end, other forms of anti-drug mental vaccination are disseminated through public service announcements, or even surreptitiously embedded in popular entertainment (Forbes, 2000; see also Boyd, 2007). Although both prevention of use and treatment of addiction have perennially yielded at best marginal returns in reducing illegal drug demand (Caulkins, Rydell, Everingham, Chiesa, & Bushway, 1999; Midford, 2010), the medical model for addressing psychoactive substance use that the "drugs as pathogens" metaphor supports remains politically popular in rhetoric, if not in budget allocations (DeBeck, Wood, Montaner & Kerr, 2009).

These two metaphors have circulated in professional, public and political discourses on various kinds of psychoactive substance use since not long after the emergence of the public sphere in the early 18<sup>th</sup> century. In concert with the broader tri-partite schema of modern social constructions of *drugs*, *non-drugs*, and *medicines* described above, the dominant drug metaphors

<sup>&</sup>lt;sup>73</sup> Education is a somewhat euphemistic label for some school-based drug prevention programs—especially those led by law enforcement officers or others with an equivalent drug warrior ideological temperament—as their prescribed knowledge, attitudinal and behavioural outcomes make them practically indistinguishable from indoctrination (Tupper, 2008b).

inscribe a modern technocratic system classifying people as either bad or sick (or both) based on what substances they ingest. Although they have fundamental differences, which entail divergent policy responses (criminalization and medicalization), these two metaphors have come to coexist in public discourse for most of the 20<sup>th</sup> century without their underlying incongruences seriously undermining their duopolistic hegemony in the policy arena. Indeed, they have gradually and symbiotically evolved to become an ideologically unified frame for modern governance and social control. For example, the much-discussed difference between the "British" and "American" approaches to narcotic drug addiction in the 20<sup>th</sup> century may be seen as a reflection of the degree to which one metaphor had slightly more currency than the other in each country. However, despite their *prima facie* differences, both the UK and US policies operated within the broader ideological confines of the international drug control regime established through the 1912 Opium convention and its various successors, which tolerated such slight variances in approach, to the degree that they did not threaten to destabilize the overall regime.

The "malevolent agents" and "pathogens" metaphors have been foundational to the definition of the drug problem in the past century and continue to inform it today (Sharp, 1994). However, Schön's (1993) key observation about generative metaphors as they relate to policy problem definition is that they have limitations which may impede creative thinking about solutions. Stone makes a similar point in her assertion that "buried in every policy metaphor is an assumption that if a is like b, then the way to solve a is to do what you would with b" (2002, p. 148). What the two dominant drug policy metaphors share is an attribution of causality to drugs themselves, and such causal attribution to a particular thing, social condition, or series of events is often a critical aspect of how a policy problem is defined (Rochefort & Cobb, 1994). With both metaphors, the complexities of substance use, addiction and associated harms are glossed over in a simplistic reductionism—what Reinarman and Levine (1997) identify as "pharmacological determinism"—which casts the very existence of drugs as the intrinsic root of many associated types of illness, crime and social harms. Instead of interrogating how modern consumeristic cultural attitudes, socio-economic determinants of health, or free-market capitalism itself might influence psychoactive substance use patterns in the population (Alexander, 2008; Eckersley, 2005; Gitlin, 1990), the status quo understanding of the drug "problem" focuses primarily on the drugs themselves. Thus, policy makers (and the general

public) often infer that the availability of drugs *per se* is the crux of the drug "problem," and that their extirpation from human societies—through the twin pillars of international control, supply reduction and demand reduction—the obvious solution (Room, 1999).

The subtle control achieved by the cooperative power of the "malevolent agents" and "pathogens" metaphors for psychoactive substances occurs not least through what Foucault identified as a crucial aspect of the power of discourse, the capacity to constitute individual subjectivities through micro-power structures pervading all language use. The line of inquiry he recommended was "to discover how it is that subjects are gradually, progressively, really and materially constituted through a multiplicity of organisms, forces, energies, materials, desires, thoughts etc." (Foucault, 1980, p. 97). Following this approach, Foucault showed that the constitution of the subject is realized in part through the categories for existence that are made available to the individual by their discursive environments. As Willig (1999) puts it, "individuals are constrained by available discourses because discursive positions pre-exist the individual whose sense of 'self' (subjectivity) and range of experience are circumscribed by available discourse" (p. 114). Indeed, people who use illegal psychoactive substances are themselves no less influenced by the dominant metaphors in public discourse, and so to some degree cannot help but internalize the social and political categories that construct them as bad or sick (Bailey, 2005; Davies, 1997). Although they may attempt forms of discursive resistance (Rødner, 2005), people who use drugs are hard-pressed not to assume the attitudes, beliefs and behaviours of the dominant cultural construction of "user" or "addict," unconsciously integrating and performing the identity that is expected of them, <sup>74</sup> especially through interactions with medical, legal, educational and other governing authorities. At the same time, through what Hacking describes as "the looping effect of human kinds" (1995), there is always a reflexive interactivity that means "people of these [socially constructed] kinds can become aware that they are classified as such. They can make tacit or even explicit choices, adapt or adopt ways of living so as to fit or get away from the very classification that may be applied to them" (Hacking, 1999, p. 34). Conversely, the label "drug user" conveniently allows people who consume legal (i.e., non-drug) psychoactive substances to avoid the Althusserian interpellation of themselves as

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<sup>&</sup>lt;sup>74</sup> Borst (2010) observes that the discursive genre of "addict-subject confession," going back at least to Thomas de Quincy's early 19<sup>th</sup> century *Confessions of an English Opium Eater*, contributes significantly to this process.

"drug users," and all of the pejorative social and political connotations this identity entails.<sup>75</sup> For people who drink ayahuasca in the early 21<sup>st</sup> century, the question of self-identity with respect to their consumption of the Amazonian brew is inextricably bound up in the historical social, economic and political issues of how psychoactive substances and "drug users" are constructed in contemporary public and political discourses.

In the public sphere, another important factor in how the drug metaphors of "malevolent agents" and "pathogens" function cooperatively to sustain certain types of power structures is the way in which they contribute to the stigmatization and scapegoating of people who use some kinds of psychoactive substances. The metaphoric implication of these tropes renders the drug user an object of anger, contempt or disgust, not only for violating the criminal law (in the case of illegal drug use), but for deliberately transgressing modern civil codes of order, rationality and sobriety, and moral codes of cleanliness and purity. While the "pathogens" metaphor would seem to open up an avenue for compassion (by constructing the drug user as a victim) that the "malevolent agents" metaphor precludes, even this has not resulted in a significant departure from the overall punitive nature of drug control efforts or a rupture in the coherence of the drug war paradigm over the past century (Room, 2005). Indeed, in many countries today people who use illegal substances (or at least those whose appearance is that of a stereotypical drug user) are dehumanized and prejudicially discriminated against as an out-group for whom standard human rights and dignities can be deemed not to apply (Harris & Fiske, 2006). In more extreme cases, people who use drugs are rhetorically depicted in public discourse as vermin, such as leeches or cockroaches (Robson qtd. in Hollick, 2005; Rock, 2003). Despite evidence that stigma and discrimination contribute to worse health outcomes for people who use illegal drugs, including increased problematic substance use (Borrell, Jacobs, Williams, Pletcher, Houston & Kiefe,

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<sup>&</sup>lt;sup>75</sup> Marxist philosopher Louis Althusser (1971) used the term "interpellation" to account for the process by which subjects are produced through ideology. As social theorist Michael Warner explains, "Althusser's famous example is speech addressed to a stranger: a policeman says, 'Hey you!' In the moment of turning around, one is interpellated as the subject of state discourse. Althusser's analysis had the virtue of showing the importance of the imaginary identification—and locating it, not in the coercive force of the state, but in the subjective practice of understanding" (Warner, 2002, p. 58).

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2007; Young, Stuber, Ahern & Galea, 2005; Ahern, Stuber & Galea, 2007), stigma against this population is perennially apparent not just in dominant public and political discourses, but also professional attitudes among some practitioners of medicine and public health (Alderman, Dollar & Kozlowski, 2010), a phenomenon in which language plays a crucial and empirically demonstrable role (Kelly & Westerhoff, 2010).

The neglect or denial of human rights is often a consequence of stigmatization, evidence of which is abundant in the lives of many of the most visible people who use illegal psychoactive substances (typically compounded by less than ideal socioeconomic determinants of health circumstances) (Gilmore, 1995; Gruskin, Plafker & Smith-Estelle, 1998; Wodak, 1998). From a historical perspective, it is important to note that the instigation and exploitation of stigma and discrimination against marginalized groups of people for political purposes is reminiscent of the instrumentalist logic behind fascist and other totalitarian approaches to social control. While more extreme and publicized examples of human rights violations committed in the name of the war on drugs are deprival of life or liberty, the denial of freedom of thought, belief and religion is equally a violation of human rights protected by both liberal democratic constitutions and international convention. It is in this geopolitical policy context that contemporary ayahuasca drinking practices emerge as a challenging policy issue for the Canadian and other governments.

In addition to the stigmatizing effects they have on people who use illegal drugs, the "malevolent agents" and "pathogens" drug metaphors also subtly but effectively preclude from public and political discourses complex and nuanced analyses of how various political, economic, social or other factors influence the supposed effects of psychoactive substance use. Scientific research in fields such as genetics, evolutionary biology, nutrition, early childhood development, and population health—as well as findings from social research that factors in culture, colonization,

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<sup>&</sup>lt;sup>77</sup> It is not difficult to imagine current drug war ideology being extended to the crafting of a "final solution," by which all citizens would regularly submit to blood or urine screening, and those found with unauthorized illegal substances in their bodies immediately subjected to a modern *auto de fé* and publicly executed to serve as a deterrent warning to others. It is also not difficult to envision that with such draconian measures, the state might be successful in reducing the prevalence and incidence of non-medical use of controlled substances and thus achieving the goal of a "drug free" society; indeed, for this reason it has in fact been suggested by the likes of Daryl Gates, former Los Angeles police chief and founder of the American Drug Abuse Resistance Education (D.A.R.E.) program, who asserted at a U.S. Senate Judiciary Committee hearing that he thought casual drug users should be shot (Ostrow, 1990).

race, gender, sexual orientation, ability or class—shows unequivocally that a broad and dynamic set of forces operate to affect outcomes associated with psychoactive substance use. Likewise, other factors in people's personal histories—such as trauma and sexual, physical or emotional abuse—can create the psychosocial conditions that make problematic substance use or addiction comprehensible, if not desirable, responses (Maté, 2008).

However, this knowledge has had only limited effect on the predominant political responses generated by the international drug control regime and its underlying drug war paradigm (Blendon & Young, 1998). While contemporary policy makers increasingly insist on the need for scientific evidence in order to make informed decisions in the public interest, the impact and uptake of evidence in the controversial policy arena of drug policy has not been commensurate with the growth of such rhetoric. Indeed, for many scientists and researchers, the field of illegal drug policy is a paradigmatic example of the disconnections between contemporary knowledge, public discourse and political action (Hwang, 2007; Pearson, 2004; Nutt, 2009; Wood, Kerr, Tyndall & Montaner, 2008). In large part this may be attributable to the fact that the news and entertainment media, politicians, and the general public operate within and are constrained by ideological parameters entrenched in pre-existing discursive frames, such as the dominant stereotypes and metaphors about drugs circulating in public discourse since the early 18<sup>th</sup> century (Lancaster, Hughes, Spicer, Matthew-Simmons & Dillon, 2010).

The drug policy reform and harm reduction movements in the latter part of the 20<sup>th</sup> century contributed to research agendas and counter-discourses that challenged the political status quo of the international drug control regime to varying degrees. In part, this has taken place in the sphere of public discourse, with the use of new language (such as the phrase "harm reduction") and alternative metaphors (such as "drugs as tools") for psychoactive substance use. However, changes achieved through these efforts— e.g., substitution treatments, needle exchange, supervised consumption sites, medical cannabis, psychedelic medicine, and depenalization or decriminalization of possession for personal use—are all arguably within the proverbial wiggle room for interpretation of the international drug control conventions and do not seem to pose a significant imminent threat to the overall regime. Furthermore, the impact of these kinds of limited changes in the policies and practices of some states and NGOs has been negligible at the

highest levels of international drug control. Civil society input on international drug control, which is commonly sought by the United Nations for other important policy matters (United Nations Non-Governmental Liaison Service, 2008), was permitted for the first time ever in the 2009 High-level Segment of the Commission on Narcotic Drugs (Vienna NGO Committee on Narcotic Drugs, 2008), but apparently only as a token gesture without any chance of influencing the process or its results. In the drafting of the 2009 Political Declaration of the High-Level Segment, which set the international drug policy course for the coming decade, the question of whether to include the phrase "harm reduction" generated prolonged and heated controversy, in which the stalwart forces of the drug-war ideological status quo ultimately prevailed (Bewley-Taylor, 2009). Whether the minor cracks in the so-called Vienna Consensus will widen in the future to become significant forces of systemic change remains to be seen<sup>78</sup>; for now, however, the edifice of international drug control remains intact, and seems as resistant to recalcitrant knowledge and evidence as ever.

The stereotyping of psychoactive substances as *medicines*, *non-drugs*, or *drugs*—and the modern metaphorical construction of the latter as either "malevolent agents" or "pathogens"—is a function of complex historical, economic, cultural and political factors, all of which may vary across times and places (Coomber & South, 2004; Escohotado, 1999). Psychoactive substances are invested with powerful social meanings that affect how people perceive, categorize, understand, use and respond to them (Reinarman & Duskin, 1999). A scholar of pre-modern European alcohol use sums up the social constructionist perspective on human consumption behaviours, observing that "eating and drinking, and even more particularly the consumption of [psychoactive substances] are usually very strongly embedded in socio-cultural ideologies since they tend in most societies not to be solitary activities but social ones performed in a social context" (Nelson, 2005, p. 3; see also Schivelbusch, 1992, and Sherratt, 2007a). Today, the historically contingent stereotypes of psychoactive substances identified in the schema I outlined

<sup>&</sup>lt;sup>78</sup> Several non-governmental organizations in different countries have called for a public health/regulatory approach to drug control in recent years, moving beyond simple criticisms of the prohibitionist status quo and initiating an articulation of specific policy alternatives (Health Officers Council of British Columbia, 2005; King County Bar Association, 2005; Transform Drug Policy Foundation, 2009). Likewise, although many academics operate uncritically within the drug war paradigm, a substantial number alternatively engage in resistant forms of inquiry that help strengthen the case for change. Likewise, the 2010 Vienna Declaration to reorient global drug policies away from criminalization and towards public health is an recent example of researcher activism in this domain (see <a href="https://www.viennadeclaration.com">www.viennadeclaration.com</a>).

in this chapter are entrenched in the socio-political ideology of the drug war paradigm, which I argued in the previous chapter can be traced to economic, cultural and political shifts associated with the ingress of novel psychoactive substances in early modern Europe. The drug war paradigm's expansion in the 20<sup>th</sup> century and its consolidation in the international political sphere belies its lack of foundation in and consistency with knowledge from contemporary pharmacological science or public health (Nutt, King, Saulsbury, & Blakemore, 2007; Gable, 2006), not to mention many indigenous perspectives on traditionally revered psychoactive plants. However, despite its questionability as a basis for sound public policy, this schema is firmly entrenched in dominant public and political discourses, and all of their entailing institutional and other power structures, which affects how "new" psychoactive substances—such as ayahuasca—are conceptualized and handled politically by government bodies such as Health Canada.

Because ayahuasca has only recently become part of the modern popular cultural and political mindscape, it is a matter of some contention how this traditional Amazonian psychoactive substance fits into the dominant schema and discursive frames identified above. In the 1960s, when interest among youth in the so-called counter-culture put other traditional entheogenic substances, such as peyote and psilocybin mushrooms, on the Western cultural radar as objects of either celebration or concern, knowledge about ayahuasca remained relatively obscure and esoteric. Thus, even today, otherwise well-informed professionals in the fields of drug policy and health have never heard of the Amazonian brew. Of course, this is rapidly changing, especially as ayahuasca's profile is raised through legal challenges in numerous countries and the revolutionary knowledge dissemination power of the Internet and other electronic communications media (Labate & Jungaberle, forthcoming; Tupper, 2008c). However, it is useful to reflect on how ayahuasca has been discursively constructed among people who are most experienced with the brew and its effects, which I will do with some brief concluding consideration of how ayahuasca is emerging into contemporary modern discourses and the competing social constructions therein.

For many of the indigenous and *mestizo* peoples of the Amazon, ayahuasca is an integral part of their ethnomedical repertoire, functioning as both a diagnostic tool and a force for healing (Beyer, 2009; Demange, 2002; Dobkin de Rios, 1972; Luna, 1984). Along with Amazonian

tobacco, or mapacho (N. rustica), and varieties of Angel's Trumpet, or toé (Brugmansia or Datura species), ayahuasca is regarded as one of the most important substances in the pharmacopoeias of Amazonian folk healers (Bennett, 1992). In this respect, ayahuasca has long been a medicine, although constituted as such within a sociocultural schema that differs significantly from the modern Western category of the same name. For members of the Brazilian ayahuasca religions, such as the Santo Daime and UDV, ayahuasca is a sacrament, a divine gift from the rainforest allowing contact with forces and energies from which humans are ordinarily cut off in our quotidian lives. The Christian syncretistic element of these new religious movements imparts the notion that ayahuasca represents an incarnated form of the Christ consciousness, and is categorically not a "drug" (Goldman qtd. in Ball, 2009b; MacRae, 2006, p. 396; Meyer, 2010). Finally, and most importantly for my thesis on entheogenic education, ayahuasca is also regarded by both traditional indigenous and contemporary religious communities of drinkers as a plant teacher (Tupper, 2002a). As Vasquez comments on the Andean cosmovision perspective, "ayahuasca is not a drug that delivers a paradise to whoever takes it, rather it is a person who accompanies us in the ritual, because it knows how to 'see' and it 'makes us see'" (1998, p. 179). By this understanding, the plants comprising the brew are perceived to have a kind of consciousness, an organic non-human sapience, and can function as metaphysical interlocutors to bestow esoteric awareness or knowledge upon the sufficiently humble and adequately prepared drinker. 79 I am not prepared here to affirm an ontological commitment to this proposition, other than to say that my own experiences with the brew phenomenologically corroborate it, and leave me with an extensive set of philosophical and future research questions to pursue. In the meantime, I postulate, I hope somewhat less controversially, that the "plant teacher" metaphor opens up the conceptual possibility that ayahuasca is a kind of archaic cognitive tool that can provide profound psychological, spiritual and other insights to adepts who become skilled in its negotiating its extraordinary effects (Tupper, 2002b; 2003).

<sup>&</sup>lt;sup>79</sup> Schmidt (2007) reports that the Céu do Mapiá Santo Daime members she spoke with did not "seem particularly interested in elaborating upon 'who' the spirit [of the Daime tea] is. They were more interested in 'what' the spirit of the *daime* can do, there emphasizing the *daime*'s capacity to convey knowledge crucial for mankind" (p. 126, italics original).

In contrast to how ayahuasca is socially constructed by those most familiar with its effects—as a medicine, sacrament, and plant teacher—the ideological categories of the modern drug war paradigm do not readily accommodate the brew and its contemporary globalized uses. The overlapping power structures of policing and biomedicine jointly impede ready acceptance of ayahuasca as a *medicine* or natural health product, a state of affairs that reveals more about these powerful modern institutions than anything about the nature or properties of ayahuasca per se. The possibility that ayahuasca might have therapeutic utility may not be admitted until it has gone through a rigorous and expensive clinical trials process, a research program that, with respect to other similar kinds of substances, has for several decades been hindered by various ideological impediments stemming from the drug war paradigm (Dyck; 2005; Grob, 2000; Pearson, 2004; Thoumi, 2002). The sacramental uses of ayahuasca by religious groups such as the Santo Daime and UDV is equally challenging for the drug war paradigm, which holds as axiomatic the proposition that *only* medical or scientific uses of controlled substances are legitimate reasons to ingest them. Finally, the notion that ayahuasca is a plant teacher, either a non-human kind of intelligence that can provide preternatural experiences of wonder and awe, or a kind of cognitive tool that can facilitate underappreciated forms of understanding and awareness, is simply outside the realm of comprehension from within the discursive frames of the drug war paradigm (Letcher, 2007). However, there are good reasons to take the "plant teacher" metaphor seriously and accord it—and the cultural traditions in which it is rooted some respect, as we shall see in the final chapter. In the meantime, I will take a closer look at how the Canadian government has responded to the influx of at least one kind ayahuasca drinking in its jurisdiction in the next chapter.

# Chapter 5 – The Canadian "Daime Tea" Policy Decision

In the late 20<sup>th</sup> century, various practices of ayahuasca drinking emerged from the Amazon and began presenting legal and policy challenges in modern states unprepared for this new transnational sociological trend. For reasons discussed in earlier chapters, ayahuasca and the common ceremonial contexts in which it is drunk do not readily fit into the drug war paradigm of the international drug control regime, which has led to conflicting interpretations of how the drug war imperative should be balanced with competing interests of the modern state, such as upholding human rights, protecting public health, and perpetuating free-market capitalism and economic growth. The Canadian government's response to the request for a Section 56 exemption by a Santo Daime church in Quebec in the early 21<sup>st</sup> century is an example of a policy decision process in which complex questions of spirituality and human rights are pitted against other goals more closely aligned with the drug war paradigm and its sustenance. This chapter applies a theoretical approach of understanding policy as a discursive practice in order to critically analyze the Canadian federal government's engagements, assessments, consultations, and decisions regarding ayahuasca between 2002 and 2008.

In this chapter, I begin by briefly outlining the political landscape in which human rights questions are politically situated in Canada. I then review the legislation prohibiting possession and traffic of harmaline and DMT (and, *ipso facto* for the Canadian government, ayahuasca)—the *Controlled Drugs and Substances* Act, which is the statutory basis of Section 56 policy lever—and provide an overview of how this exemption clause has been applied since its creation 15 years ago. Following this, I provide a brief summary of how similar ayahuasca cases have been handled in other jurisdictions, especially the United States and Brazil. The final sections of the chapter takes a more fine-grained look at the policy decision in the Canadian Santo Daime case, establishing a chronology of the issue from the interception of a shipment of the Daime tea on its way to Montreal to where things stand today. As discussed in chapter 2, the data for my analysis come primarily from documents secured through Access to Information requests to the federal government in 2009. Using these, in Sections 5.5 to 5.8, I consider key policy analytical issues relating to the Santo Daime decision, such as problem definition, policy actors and stakeholders, and the knowledge base of Health Canada. While some of the issues I discuss are

specific to the Canadian context, many others would apply to other jurisdictions where historical liberal democratic traditions might allow for similar political resolutions to controversies about religious and other fundamental freedoms.

### 5.1 – Canadian Politics & Human Rights

The English heritage of the Canadian federal government means that rights and freedoms have a political importance that extends back to the Magna Carta, a legal charter granting certain political rights to English subjects in the 13<sup>th</sup> century (although written codes of law were first developed in the early stages of human literacy, such as the Code of Hammurabi from around1790 B.C.E). During the Enlightenment period, the precepts of natural, civil and human rights were further developed by English philosopher John Locke, and realized politically in Bills of Rights adopted in England in 1689 and in the United States of America in 1791 (Rutland, 1955). With the abolition of slavery and various extensions of suffrage in the 19<sup>th</sup> and early 20<sup>th</sup> centuries, civil and political rights in many countries gradually evolved to encompass a wider group of citizens. In the mid-20<sup>th</sup> century, the establishment of the supra-national organization of the United Nations led most of its member states to adopt a set of covenants known collectively as the International Bill of Human Rights (Humphrey, 1976). However, despite its being a liberal democracy with a political heritage of de facto respect for rights and freedoms, for the first century of its existence Canada did not have its own bill of rights, as its original constitution had been created through an act of the British Parliament and did not include any such provision for specific rights protection (Hogg, 1984). In 1960, the Diefenbaker government enacted a statutory Bill of Rights law, but its limited scope (i.e., applying to federal, but not provincial jurisdiction) and other problems left critics dissatisfied with its operability and adequacy for securing basic political and human rights for Canadians (Hogg, 1984). In the 1970s, Prime Minister Pierre Trudeau ramped up discussions about the need for a supra-statutory charter of rights as part of his government's ambition to amend the British North America Act and repatriate the constitution. After much federal-provincial negotiation and input from Canadian citizens, in 1982 the Constitution Act was put into effect, and its first section outlined a new Charter of Rights and Freedoms.

As with similar bills and charters in other liberal democratic traditions—especially that of the United States, where its Bill of Rights has achieved a "pivotal, even mythological place in [American] national consciousness" (Tribe qtd. in Wisotsky, p. 890)—the Canadian Charter of Rights and Freedoms was created in order to ensure that government statutes and legislation do not encroach on or otherwise erode basic political rights and civil liberties (Hogg, 1984). In keeping with Locke's postulation of basic natural rights as part of his social-contract political philosophy, freedom of thought and religion are the most paramount liberties protected in modern liberal governance, including in both the Canadian Charter and the U.S. Bill of Rights. The cardinal importance of such basic freedoms is evident in the fact that they are enumerated at the beginning of these documents. For example, prior to the democratic, mobility, legal, equality and language rights outlined in the Canadian Charter of Rights and Freedoms are the "fundamental freedoms" of Section 2, which include: a) "freedom of conscience and religion," and b) "freedom of thought, belief, opinion, and expression." While all of the rights protected in the Charter (and arguably others that are not, such as income equality or the rights to food and shelter) are vital for the health of civil society, those listed in Section 2 are the most crucial to the liberal traditions of Canadian and, indeed, all modern Western secular pluralist forms of governance.

It is in this political and civil rights context that I want to critique the illicit status of many entheogenic substance use practices, such as ceremonial ayahuasca drinking, and how Health Canada has dealt with the Céu do Montreal request for a Section 56 exemption based on public interest. The challenge that the modern drug war paradigm poses to the human rights and civil liberties of citizens of otherwise free countries is not a new theme in drug policy analysis. For example, American legal scholar Steven Wisotsky (1987) detailed what he saw in the 1980s as the emergent "drug exception" to the American Bill of Rights, whereby the fundamental freedoms protected in the constitution were becoming increasingly subordinated to the imperative of attaining a "drug-free" society at seemingly any cost, including the freedoms cherished (at least rhetorically) in the United States (see also Bertram, Blachman, Sharpe & Andreas, 1996). While Wisotsky focuses primarily on the increasing surveillance, police militarization, civil forfeitures and other "big brother" tactics deployed by the U.S. federal government in its domestic war on drugs—which continued for the next two decades and has

fundamentally transformed American democracy (Simon, 2007)—a significant oversight in his analysis is an examination of the effects the international drug control regime and drug war paradigm on freedom of religion and thought.

In this regard, however, Richard Boire (2000) has provided a penetrating analysis of how the prohibition of some psychoactive substances, entheogens in particular, amounts to a violation of the most salient and fundamental of human freedoms: cognitive liberty. As Boire puts it,

the right to control one's own consciousness is the quintessence of freedom. If freedom is to mean anything, it must mean that each person has an inviolable right to think for him or herself. It must mean, at a minimum, that each person is free to direct one's own consciousness, one's own underlying mental processes, and one's beliefs, opinions, and worldview. (2000, p. 4)

By way of analogy, Boire suggests that the prohibition of certain psychoactive substances is akin to past prohibitions of certain books by religious and government authorities, who "were not so much interested in controlling ink patterns on paper, as in controlling the ideas encoded in printed words" (2000, p. 6). Following this logic, it becomes apparent that the war on drugs is not about plants and chemicals; rather, "it is a war on mental states—a war on consciousness itself—how much, what sort we are permitted to experience and who gets to control it" (p. 6). Furthermore, Boire suggests, "the government-termed 'war on drugs' is a strategic decoy label; a slight-of-hand move . . . to redirect attention away from what lies at ground zero of the war—each individual's fundamental right to control his or her own consciousness" (p. 6). Although freedom of religion is the central issue in Health Canada's decision about Céu do Montreal's Section 56 exemption request, a compelling case could be made that the criminalization of ceremonial ayahuasca drinking and similar entheogenic practices equally infringes on the right to freedom of thought.

## 5.2 – The Controlled Drugs and Substance Act & Section 56

The *Controlled Drugs and Substances Act* (*CDSA*) is the Canadian federal law that prohibits or restricts the possession and trafficking of certain types of psychoactive substances, and fulfills Canada's obligations as a signatory to the international conventions that comprise the global

drug control regime.<sup>80</sup> The substances prohibited by the *CDSA* include all those listed in the schedules of the international conventions, a variety of additional ones, as well as precursors that can be used for their laboratory manufacture. Most notably, the list includes three plants and their primary psychoactive components—the opium poppy (morphine, codeine); the coca bush (cocaine), and the cannabis plant (tetrahydrocannabinol, or THC)—as well as a great assortment of their analogues and other natural, synthetic and semi-synthetic psychoactive compounds, such as dimethyltryptamine (DMT), mescaline, psilocybin, and lysergic acid diethylamide (LSD).

Prior to the enactment of the CDSA in 1996, control of drugs in Canada had been legislated through the 1961 *Narcotic Control Act* and subsequent amendments to the 1920 *Food and Drugs Act* (Giffen, Endicott & Lambert, 1991). The *CDSA* completely repealed the *Narcotic Control Act*, as well as parts III and IV of the *Food and Drugs Act* (Hansard, 1995). According to a Member of Parliament at the time the *CDSA* was being debated:

The controlled drugs and substances bill is designed to achieve three prime objectives. First is to provide the government with the flexibility required to better control the import, production, export, distribution and use of controlled substances. Second is to provide the mechanisms needed to implement our obligations under international agreements. This relates to the restricted production or trade of internationally regulated substances destined for medical, scientific and/or industrial purposes. Third is to enhance the ability of the police and the courts to enforce our laws. (M.P. John Maloney [Erie, Lib.] - Hansard, Monday, October 30, 1995)

The passage of the *CDSA* was the culmination of several iterations of bills introduced to Parliament in preceding years, first as Bill C-85 by the Conservative government in 1991 and then as Bill C-7 by the succeeding Liberal government in 1994 (Fischer, Erickson & Smart, 1996). The legislative progress of these bills was slowed down by lengthy parliamentary committee hearings, due to significant opposition by health and other experts who argued that their largely punitive nature did not reflect contemporary scientific evidence about psychoactive substances, addiction and effective drug policy. As with other drug policy initiatives in Canada

<sup>&</sup>lt;sup>80</sup> The 1961 Single Convention on Narcotic Drugs, the 1971 Convention on Psychotropic Substances, and the 1988 United Nations Convention Against the Illicit Traffic in Narcotic Drugs and Psychotropic Substances. See chapter 3 above for more detail on the genesis of these conventions.

<sup>&</sup>lt;sup>81</sup> The 1961 *Narcotic Control Act* met Canada's treaty obligations for drug control under that year's Single Convention on Narcotic Drugs, but also implemented the legislative changes recommended by a 1955 Senate Special Committee on the Traffic in Narcotic Drugs in Canada, which recommended an increased emphasis on enforcement and punishment, including compulsory treatment for illegal drug users (Solomon & Green, 1982).

and elsewhere, expert testimony and advice (other than that of law enforcement) had little political impact on the final content of the legislation (Erickson, 1998).

When the *CDSA* was ultimately passed in 1996, the federal Minister of Health was given a new policy lever through Section 56 of the act. This clause accords the Minister the discretionary power to exempt designated groups or individuals from all or some of the provisions of the act (e.g., prohibition of possession and/or traffic of controlled substances). In other words, if a Section 56 exemption is granted to individuals or groups, the specified aspect of the *CDSA* does not apply to them. In the act, Section 56 stipulates that:

The Minister may, on such terms and conditions as the Minister deems necessary, exempt any person or class of persons or any controlled substance or precursor or any class thereof from the application of all or any of the provisions of this Act or the regulations if, in the opinion of the Minister, the exemption is necessary for a medical or scientific purpose or is otherwise in the public interest.

The power granted to the Minister by Section 56 is broad, but, as will be discussed below, it is seldom and restrictively exercised. In this section, I outline some of the past and present applications of Section 56, including exemptions for uses deemed to be medical (e.g., methadone maintenance treatment and medical cannabis), scientific (e.g., laboratory and clinical research, including heroin maintenance and supervised injection sites), and purposes otherwise in the public interest (e.g., ayahuasca for religious practice). As a 1999 Health Canada "Interim Guidance Document"—developed to assist Canadians in applying for a Section 56 exemption for medical purposes—states: "[b]y its very nature, a Section 56 exemption may be granted only in exceptional circumstances" (Health Canada, 1999a). However, there is nothing in the *CDSA* itself that stipulates the Minister must be sparing in granting exemptions; ultimately, it is solely the Minister's discretion as to how often, to whom and for what reasons Section 56 exemptions may be given.

#### **Exemptions for Medical Purposes**

One of the reasons the Minister may grant a Section 56 exemption is to allow the use of a controlled substance for medical purposes. This is in keeping with one of the primary objectives of the international drug control treaties, which is to ensure that signatory states limit any use of

controlled substances to medical or scientific purposes (Bewley-Taylor, 1999). A few Section 56 exemptions granted for medical reasons have been "class exemptions," which exempt a category of people so that they do not need to apply individually for an exemption. For example, Section 56 class exemptions have been issued to podiatrists (and pharmacists and hospital administrators working with them) to allow them to prescribe or administer benzodiazepines, as well as to travellers who are importing or exporting legitimately prescribed medications containing controlled substances. For most of the Section 56 exemptions approved for medical purposes, however—such as for physicians who prescribe methadone, or, historically, for patients to use cannabis as a medicine—individual exemptees are designated by Health Canada.

One of the most common applications of Section 56 for medical purposes is to authorize physicians to prescribe methadone, a synthetic opioid. Unlike most kinds of opioid agonist medications (e.g., codeine, morphine, oxycodone, hydromorphone, or fentanyl), methadone may be prescribed only by physicians authorized to do so through a Section 56 exemption. Exempted physicians can be in two categories of prescribers—those for methadone maintenance treatment (MMT) or for methadone for treatment of pain. In some provinces, physicians apply directly to Health Canada to approve their exemption to prescribe methadone; in others (e.g., British Columbia, Manitoba, Ontario and Quebec), medical licensing bodies have intermediary responsibility for MMT exemptions. For example, in these jurisdictions, the provincial College of Physicians and Surgeons ensures applicants are appropriately screened and trained, before passing along a recommendation for a Section 56 exemption to Health Canada. The role of Health Canada in this process is limited, as they merely confirm approval for the Section 56 recommendations that come from the medical licensing bodies.

The requirement for a Section 56 exemption to authorize the medical use of methadone in Canada illustrates some of the irrationalities and contradictions of the drug war paradigm as it manifests in this country. The government's treatment of methadone is unique relative to the myriad other opioid agonists that do not require such an exemption, not because of any pharmacological properties that distinguish it from them, but because it seems to have acquired a kind of magical or talismanic symbolism. People prescribed methadone for maintenance purposes are allowed to take this substance on a daily basis, even though it creates a physical

tolerance virtually identical to (i.e., no easier, or even more difficult, to withdraw from than) heroin or morphine. That authorities regard the daily ingestion of methadone a treatment for addiction, yet consider the chronic use of other substances (other than xanthinated beverages) dependence or abuse, is a testament to the illogic of modern drug control. Because methadone has been arbitrarily designated a "medicine" and not a "drug," the common metaphorical connotations of the latter (i.e., "drug as malevolent agent" or "drug as pathogen," as discussed in chapter 4)—at least insofar as government policy is concerned—do not apply. People maintained on methadone may perpetuate this kind of psychoactive substance use for months, years, or even indefinitely, yet still be regarded as recovered, "clean" and respectable (it is for the same reason that people treated for addiction are deemed to have been successful even if they continue the chronic use of nicotine or caffeine, two common "non-drugs" on which many become severely, yet legally and unobjectionably, dependent). The Section 56 exemption process is a salient example of a formal legal mechanism by which such affronts to common sense are embedded in Canadian drug policy.

Section 56 exemptions for medical purposes were also given in the late 1990s and early 2000s to permit the medicinal use of cannabis (although unlike methadone exemptions, it was patients themselves rather than physicians who applied for and received them). A recognition that Section 56 was an option for the government to meet the needs of Canadians who might benefit from the use of cannabis as a medicine was put forward by the federal government as part of its defense in *Wakeford v. Canada* (1998). Jim Wakeford was an Ontarian living with HIV/AIDS who found that cannabis effectively alleviated the nausea and loss of appetite he experienced as a side effect of other medications to treat his illness. In 1997, Mr. Wakeford wrote to the Prime Minister, the Minister of Health and the Minister of Justice, asking for permission on compassionate grounds to use cannabis legally for personal medical reasons. Minister of Health Allan Rock's response explained that marijuana was not a recognized as a medicine in Canada, and he wrote: "I regret that I am unable to provide you with a more positive response, but please accept my sincere wishes for a satisfactory resolution to your problem" (qtd. in *Wakeford v. Canada*, 1998). Mr.

<sup>&</sup>lt;sup>82</sup> The argument that evidence for the therapeutic value of cannabis or cannabis preparations is merely anecdotal and has not been ascertained by medical science is a common red-herring in drug war rhetoric (which for most of the latter part of the 20<sup>th</sup> century was disseminated by credulous and uncritical commercial news media). What this claim occludes, however, is the fact that the politicization of drug-related science has meant researchers and

Wakeford ultimately resorted to legal action, arguing that his Section 7 rights of the Charter of Rights and Freedoms—namely, the rights to life, liberty and security of the person—were violated because of the categorical prohibition of cannabis in the *CDSA*. The government's counter-argument was that Mr. Wakeford was not deprived of his rights, as Section 56 of the *CDSA* was a statutory remedy of which he had not availed himself. In the initial 1998 ruling on the Wakeford case, the presiding judge agreed with the crown that the *CDSA*'s Section 56 provided a process by which the plaintiff could seek to legitimately use cannabis for medical purposes. Mr. Wakeford was denied a constitutional exemption and was directed to apply for a Section 56 exemption for medical purposes.

However, the case was re-opened a year later when Mr. Wakeford brought forward new information about Health Canada's lack of transparency and other issues with respect to Section 56 (*Wakeford v. The Queen*, 1999). Specifically, the judge reconsidered the government's claim that Mr. Wakeford could have secured a Section 56 exemption in 1998, determining that it was "illusory," as:

no process existed within the Ministry of Health such that an application for exemption . . . could have been considered at the time of the original hearing in this matter; and . . . had Mr. Wakeford formally applied for an exemption, the Minister of Health had no real and meaningful way of considering his application. (*Wakeford v. The Queen*, 1999)

Subsequently, Health Canada developed a process by which individuals could apply for Section 56 exemptions to use cannabis for medical purposes and issued an Interim Guidance Document outlining responsibilities and procedures for applicants the following year (Health Canada, 1999a). The judge took this as evidence that Health Canada was making a "genuine effort" to develop a process for Canadians in circumstances such as Mr. Wakeford's. However, he also noted that a Health Canada official (Carole Bouchard, who later played a critical role in the Céu do Montreal case) disclosed in an affidavit that the bureaucratic structures and procedures were not in place at that time to process applications. Accordingly, the judge granted Mr. Wakeford an interim constitutional exemption with respect to the offences of possession and cultivation of marijuana, until such time as the Minister of Health made a decision on the application for a

scientists in countries such as Canada and the United States have been both tacitly and overtly discouraged from even suggesting, let alone actively pursuing, such lines of medical research for decades (Conboy, 2000; Lucas, 2009; Taylor, 2008)

Section 56 exemption. Mr. Wakeford received an exemption for purposes of using cannabis medicinally—the first of its kind—on June 9, 1999.

Health Canada's use of Section 56 of the *CDSA* to allow for the medical use of cannabis was short lived, however, due to another Ontario court of appeals decision in 2000. In the case of *Regina v. Parker* (2000), the judges found that the "unfettered" and "absolute discretion" of the Minister of Health to grant or deny Section 56 exemptions was inconsistent with the principles of fundamental justice. Along these lines, they observed that the Interim Guidance Document issued by Health Canada outlined the factors the Minister "may" consider in Section 56 applications, but that it did not have the force of law, and its qualification that Section 56 is exercised only under "exceptional circumstances" does not exist in the *CDSA*. The Parker appeal decision also noted a lack of transparency and timeliness in the administrative structure for processing Section 56 applications for medical cannabis exemptions, circumstances which further undermined its fairness and conformity to principles of justice.

The decision in *Regina v. Parker* (2000) found that the issues with Section 56, at least with respect to the medical use of cannabis at that time, were too serious to be remedied in any way other than by declaring the statutory prohibition of possession of cannabis in the *CDSA* to be invalid. However, the judges suspended the declaration of invalidity for one year in order to allow Parliament sufficient time to develop alternative legislation that would adequately protect the human rights of Canadians who might benefit from medical cannabis. Section 56 exemptions continued to be sought for the use of medical cannabis from the time the *Regina v. Parker* decision was issued on July 31<sup>st</sup>, 2000, until almost a year later, when the federal government instituted the *Marihuana Medical Access Regulations*, the 2001 legislation that currently governs medical cannabis use in Canada.

Other examples of Section 56 exemptions for medical purposes are those given to groups who may be importing or exporting controlled substance medications to Canada. In addition to class exemptions for patients transporting their own personal medications mentioned above, they may be granted to humanitarian missions that deliver supplies of medications to troubled regions of the world. For example, an organization such as *Médecins Sans Frontières* (Doctors Without

Borders) intending to provide opioid analysesics as part of its relief work, must secure a Section 56 exemption to export the drugs legally. Likewise, medical staff travelling with sports teams visiting Canada from other countries, whose supply kits may contain medications that contain controlled substances, must obtain a Section 56 exemption for the time they are in Canada.

### **Exemptions for Scientific Purposes**

In addition to exemptions for medical purposes, Section 56 gives the Minister of Health the power to issue exemptions to the *CDSA* for scientific purposes to researchers affiliated with a university or with private industry who are conducting laboratory or clinical research that requires a controlled substance. In applying for a Section 56 exemption for scientific purposes, the researcher must provide detailed information on the objectives, methodology, protocol and expected outcomes of the study. The kinds of research that might be considered for a Section 56 exemption include *in vitro* research, such as laboratory studies on tissue cultures in test tubes; *in vivo* research, such as laboratory studies on animals; and clinical research, such as health or medical research involving human subjects. Examples of Section 56 exemptions for scientific research involving humans include clinical trials to study pain management for medical conditions such as cancer, back pain, and osteoarthritis (Vesterfelt, 2008), as well as, more controversially, the North American Opiate Medication Initiative (NAOMI), and Insite, Vancouver's supervised injection site research pilot, which are discussed in more detail below.

The informational criteria for securing a research exemption are considerable, but as per direction from the international sphere (such as the UN's Commission on Narcotic Drugs and International Narcotics Control Board), security and prevention of diversion are top concerns. If the research involves animals, information on the species of animal, average specimen weight, the initial and total doses of the controlled drug to be administered, and how the animal carcasses will be disposed of is required. If the research involves humans, information on the number of subjects and the amount and frequency of doses is required. Other required information includes the type and amount of controlled substance needed, the supplier, and a description of storage and security systems. Physical security for storage of controlled substances is closely monitored, as licensed dealers (i.e., industrial manufacturers or commercial distributors), analytic

laboratories, and research scientists must demonstrate that their research facilities meet the security requirements set by Health Canada in order to get an exemption.

Health Canada's physical security requirements are based on a risk assessment, which factors in the consequences and probability of robbery, pilferage or theft occurring. According to Health Canada (1999b), the cost of these kinds of events to society, "includes, but is not limited to police and court costs as well as a variety of health and social service costs." The probability of events such as robbery occurring is estimated by the number of drug thefts and drug losses that have historically occurred in that region (essentially a function of proximity to major urban centres), combined with the estimated street value of the drug on the illegal market (indicating the likelihood of its being stolen). In an appendix to its "Directive on Physical Security Requirements for Controlled Substances," Health Canada lists its estimated value for various controlled substances. These are calculated as "a composite of the price paid in various parts of the country and the price paid at various stages of supply in the illicit market," (Health Canada, 1999b) although the prices are grossly different from other estimates of street drug values.<sup>83</sup> Health Canada claimed in 1999 that it "does not envision changing the list showing the illicit market value of drugs more often than every two years unless there has been a marked change in the desirability of a particular drug" (Health Canada, 1999b); there is no evidence that the list has changed in the last decade. Ultimately, the region of the country where the research is taking place and the type of drug being used determine the specific security requirements to be met to obtain a Section 56 exemption for scientific purposes.

Two relatively high-profile examples of Section 56 exemptions for scientific purposes in recent years include the North American Opiate Medication Initiative (NAOMI) clinical research trials and, prior to a court ruling in May 2008, Insite, one of Vancouver's supervised injection sites. The exemptions for these research projects may not be typical for scientific exemptions, but their exceptional nature effectively illustrates the priority of Health Canada and the federal government to conform to the international drug control regime, regardless of the health and

<sup>&</sup>lt;sup>83</sup> For example, Health Canada estimates the street value of cocaine to be \$1,000,000/kg and of heroin \$3,000,000/kg. These prices are, respectively, approximately 16 times and 25 times the street values determined in other estimates (Centre for Addictions Research of BC, 2008). There is also an estimate for the value of "coca leaves" (\$100,000/kg), even though there is virtually no illegal market for coca leaves in Canada and the price of coca leaves in producer countries is between \$3 and \$4/kg (UNOCD, 2009).

human rights of Canadians or the constitutional jurisdiction of provinces on matters of health care. The NAOMI trial was a research project that attempted to replicate in Vancouver and Montreal a medical treatment piloted in some European countries: the prescription of diacetylmorphine, or pharmaceutical-grade heroin, for maintenance treatment of chronic heroin injectors. Specifically, the study compared the retention of patients (people dependent on heroin who had not succeeded at previous addiction treatment attempts) who received injectable diacetylmorphine with control groups receiving either optimized methadone or injectable hydromorphone. In order to conduct the NAOMI study, which required storing, preparing and administering controlled substances (specifically, heroin, arguably the most taboo opiate), the researchers had to seek a Section 56 exemption for scientific purposes from Health Canada, which resulted in significant trials, tribulations and fiscal tolls for the team (Gartry, Oviedo-Joekes, Laliberte, & Schechter, 2009).

The other prominent example of a Section 56 exemption for scientific research purposes was for Vancouver Coastal Health and the Portland Hotel Society to operate Insite, a pilot supervised injection site (SIS) in Vancouver's Downtown Eastside. Like the NAOMI research, Insite was proposed to corroborate in a Canadian context the efficacy of an intervention that showed promise of improving both public health and public safety based on pilot studies in Europe (MacPherson, 2001). However, the controversy about SISs created challenges for researchers, social service providers and community groups who wanted to see a site established and studied in Vancouver (Small, 2007). For example, the alleged merits and shortcomings of SISs (and harm reduction more generally) were a prominent aspect of public discourse in Vancouver in the late 1990s and early 2000s, and became one of the key issues in the 2002 Vancouver municipal election (Cutler & Matthews, 2005). The saga of Insite's tenuous and controversial existence is a telling lesson in how the drug war paradigm has guided federal policy on matters of life and death for vulnerable Canadians, whose human rights have been violated for the sake of upholding the international drug control regime.

In March 2003, Vancouver Coastal Health and the Portland Hotel Society submitted an application for a Section 56 exemption to establish and research an SIS in Vancouver's Downtown Eastside. In September 2003, the applicants received a letter from Health Canada

Vancouver facility, and an exemption for possession to the clients and all staff at the proposed Vancouver facility, and an exemption for trafficking to the Responsible Person in Charge and alternates, for transfer or delivery of any controlled substance left at the site to a police officer for analysis or destruction. The original exemption was for three years, but a change in the federal government (to a minority government led by the Conservative party) in January 2006 put the future of the site in jeopardy, as the new Health Minister, Tony Clement, indicated he did not support SIS programs (Bailey, 2006). In September 2006, the federal government announced a 16-month extension to the Section 56 exemption to allow for further research, although at the same time it terminated federal research funding for the trial (O'Neil, 2006; Wood, Kerr, Tyndall & Montaner, 2008). In October 2007, Health Canada announced another extension to the Section 56 exemption for Insite, until June 30, 2008, again citing the need for further research on the SIS pilot (Health Canada, 2007c). In the meantime, the Portland Hotel Society took the federal government to court to try to keep Insite open and protect the health of its clients.

In May 2008, a British Columbia Supreme Court decision referred to as *PHS Community Services Society v. Attorney General of Canada*—following in some respects the precedent set in *Regina v. Parker* (2000), discussed above—found that the application of the *CDSA* to the clients and staff of Insite amounted to a violation of the rights to life, liberty, and security of the person (Section 7 of the Canadian Charter of Rights and Freedoms) of people chronically dependent on injected drugs. Specifically, Justice Pitfield ruled that Section 56 "cannot be relied upon as an antidote to the violation of s. 7 rights that has been established in relation to the users of Insite" (*PHS Community Services Society v. Attorney General of Canada*, 2008, p. 58). The ruling effectively obviated the need for Insite to have a Section 56 exemption to continue operating, so it remained open even after the decision was appealed by the crown. In January 2010, on appeal by the federal government, the British Columbia Court of Appeals upheld Justice Pitfield's decision. The federal government in turn appealed this decision to the Supreme Court of Canada, which is expected to make a final decision on the matter in 2011. <sup>84</sup>

<sup>&</sup>lt;sup>84</sup> Whether a Section 56 exemption is even necessary to operate an SIS is a question arising from the existence of Vancouver's other supervised injection service, at the Dr. Peter Centre, an HIV/AIDS care facility. The Dr. Peter Centre's nursing staff began supervising self-injections by clients in 2002—one year before Insite opened—after the Centre's executive director received guidance from the Registered Nurses Association of BC (now the BC College of Registered Nurses) that doing so was within the scope of nursing practice and that employers have an obligation to provide essential support systems so that registered nurses are able to meet the Standards for Nursing Practice.

#### **Exemptions "Otherwise in the Public Interest"**

Section 56 of the *CDSA* provides grounds other than medical or scientific for which the Minister of Health may grant an exemption—for purposes "otherwise in the public interest." It is this clause that gives Section 56 its uniqueness as a policy lever, as the international drug control conventions oblige states to make provisions for the medical and scientific uses of controlled substances, but do not say anything about "public interest" provisions. Indeed, the 1961 Single Convention on Narcotic drugs stipulates that governments must "limit *exclusively to medical and scientific purposes* the production, manufacture, export, import, distribution of, trade in, use and possession of drugs" (section 4.1.c, italics added). Thus, the existence of "otherwise in the public interest" as a clause in Canadian drug control legislation is superfluous to one of the primary statutory objectives of the *CDSA*, its symbolic demonstration of Canada's compliance to the international drug control regime. Rather, the vagueness of the phrase underscores the broad powers and discretion Section 56 the *CDSA* gives the Minister of Health, as well as the scope for potential derogation from drug control norms it affords.

Exemptions in the "public interest" are seldom considered and even more seldom granted, although there are illustrative instances of how Section 56 is used in this way. For example, a class exemption has been given to allow pharmacists and persons in charge of a hospital to send controlled substances that are for some reason unusable (e.g., passed expiry date) to companies for destruction, in order to prevent stockpiling in a location without appropriate physical security provisions. Section 56 is also occasionally used to give exemptions to law enforcement agencies to possess controlled substances for law enforcement training purposes, as the *CDSA* makes allowances through Section 55 for police to possess controlled substances in the course of a criminal investigation (e.g., sting operations), but not for other reasons. A Section 56 exemption would therefore allow for police to grow cannabis so that officers may know what plants look and smell like in various phases of the growing cycle, or for canine trainers to possess various controlled substances to train sniffer dogs to detect illegal drugs. As an exemption of this kind is for neither medical nor scientific purposes, it would be considered in the public interest.

Subsequent legal counsel affirmed that the Dr. Peter Centre might be at risk of civil liability if it did not uphold the duty to care established through the Standards for Nursing Practice (Davis, 2007), which echoed a similar argument put forward by a legal scholar in 2001 (Jones, 2002). The Dr. Peter Centre has been publicly candid about its practice of supervising injections (Howell, 2006), and continues to operate an SIS as a core service without a Section 56 exemption.

Whether Canadian legislators imagined anything like entheogenic substance use when they anticipated reasons for which a Section 56 exemption might be "otherwise in the public interest" is unclear.85 However, in addition to Céu do Montreal's request for an exemption to allow sacramental ayahuasca use, Health Canada has received others that claim cultural, ceremonial or religious grounds for legitimation of their otherwise proscribed psychoactive substance use. One of these was submitted by an individual seeking permission to import and use khat, Catha edulis Forssk., a plant native to the Arabian Peninsula and east Africa whose leaves are chewed for their mild stimulant effects. Because khat contains cathinone and cathine, two alkaloids listed as controlled in Schedule 3 of the CDSA, its use is prohibited in Canada without an exemption through Section 56. The Office of Controlled Substances received the khat request at around the same time as Céu do Montreal's Daime tea exemption request, and the two were considered together as a single policy issue in Health Canada's managerial executive meetings. 86 From the perspective of the government, the superficial similarities between khat and ayahuasca provide some validity for treating these two very different cultural practices as a unified policy issue: they are both psychoactive plants not indigenous to Canada that contain controlled substances and are being imported and used for non-medical, non-scientific purposes. However, unlike the Céu do Montreal request pertaining to ayahuasca, the request for a Section 56 exemption for khat was ultimately determined by Health Canada to have more risks than benefits for the public interest, and the proposed recommendation for the Minister was to refuse an exemption for the ceremonial/cultural use of khat.

Health Canada has also received two other notable requests for a Section 56 exemption in the public interest, both for the religious use of cannabis. The first of these was submitted in

<sup>&</sup>lt;sup>85</sup> The fact that "mescaline and any salt thereof, but not peyote (lophophora)" is listed as controlled by the *CDSA* means that Canadian members of the Native American Church do not require a Section 56 exemption for their entheogenic use of peyote (analogously interpretable through the lens of the drug war paradigm as a "preparation" of mescaline), and suggests that at least one entheogenic practice was considered by parliamentarians in a somewhat favourable light during the 1996 drafting of the *CDSA* (or that prohibiting peyote use in Canada for some but not other citizens, as with U.S. law, was seen to create more problems than it would solve).

<sup>&</sup>lt;sup>86</sup> These include the Office of Controlled Substances Program Management Committee—Health Canada. (2006, May 15). [Issue sheet for "Quick Hits" meeting attended by Directors of Health Canada's Drug Strategy and Controlled Substances Programme]. Health Canada Access to Information documents, p. 220—and the Healthy Environment and Consumer Safety (HECS) Sub-Committee on Risk—Desjardins, S. (2006, May 15). [E-mail to Asha Bajwa]. Health Canada Access to Information documents, p. 243.

November 2006 by two Ontarians affiliated with the Church of the Universe, a religious organization founded in 1969 by one of the applicants, Walter Tucker. The basis of the request was that the applicants' freedom to practice their religion—which includes the sacramental consumption of cannabis—was violated by the categorical prohibition of cannabis through the CDSA, so they sought a Section 56 exemption to use cannabis lawfully for their idiosyncratic religious purposes. Health Minister Tony Clement notified the applicants in February 2007 that they had failed to provide sufficient evidence of necessity for the exemption they sought, and that it would therefore not be granted. The second request for an exemption allowing the religious use of cannabis came to Health Canada in February 2009, from a lawyer representing Chris Bennett, a Vancouver-based author and cannabis activist. Bennett's request claimed that his religious and spiritual freedom, his liberty and his equal treatment under the law were all protections under the Charter of Rights and Freedoms that were violated through the prohibition of cannabis by the CDSA. As with the previous sacramental cannabis exemption request, Health Canada refused to grant Bennett a Section 56 exemption; however, his lawyer has since initiated a judicial review of Health Canada's decision by the Federal Court of Canada.<sup>87</sup> While these Section 56 exemption requests based on religious freedom arguments were unsuccessful, the Céu do Montreal's application was seen in a different light, as I will discuss below.

The inclusion of Section 56 in the 1996 *Controlled Drugs and Substances Act* created a new policy lever for Canadian drug control. In the Westminster parliamentary system, cabinet ministers wield considerable discretionary authority, and as the preceding discussion shows, the power given to the Minister of Health through Section 56 allows a single individual to adjudicate on matters that deeply impact the rights and freedoms, health and welfare, and religious practices or cognitive liberties of Canadians. Although it has been described as "unfettered," the Minister's power to exempt through Section 56 is generally used in reserved and cautious manner. Since Health Canada does not routinely divulge information about requests received or decisions made that pertain to Section 56, the sketch provided above is based on partial information and does not obviate the need for further inquiry on these matters, from which both policy analysts and the Canadian public would benefit. In the meantime, discussion and analysis

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<sup>&</sup>lt;sup>87</sup> Information on the two sacramental cannabis exemption requests was made available by Chris Bennett's posting of related documents, including affidavits from key Health Canada staff, on the Internet: <a href="http://www.cannabisculture.com/v2/node/24540">http://www.cannabisculture.com/v2/node/24540</a>

of the Céu do Montreal request illustrates how Section 56 has allowed Health Canada to respond to an unexpected and potentially difficult policy problem without resorting to the disputatious forum of the justice system, although in so doing also to establish a Canadian precedent for permitting the entheogenic use of a substance otherwise deemed an illegal drug.

## 5.3 – International Context

The history and uses of Section 56 are primarily to ensure Canada's compliance with international drug control conventions, which both internal domestic and international (especially U.S.-influenced) foreign policy pressures and obligations demand. However, in the case of the Céu do Montreal policy decision, the supra-national political force of the United Nations was uncharacteristically absent as an authoritative source for policy guidance. The UN's International Narcotics Control Board (INCB) is a quasi-judicial body that is responsible for overseeing the implementation of international drug control conventions. The first instance (at least that has been made public) of the INCB's engagement on the issue of ayahuasca and its status within the international drug control regime happened in 2001, when the Netherlands' Ministry of Public Health sought the board's clarification on how signatories to the drug control conventions were expected to address its use in their jurisdictions. In response to the Dutch government's request, the INCB communicated in a short letter that its interpretation was that that ayahuasca and its constituent plants are *not* controlled by the 1971 Convention on Psychotropic Substances (Schaepe, 2001).

The reason the INCB gave for this decision was that the 1971 convention does cover plants or other natural materials containing DMT and that a decoction such as ayahuasca does not constitute a "preparation" of DMT, an interpretation consistent with an authoritative commentary on the 1971 Convention published in the mid-1970s (Lande, 1976, pp. 384-7). Like the Netherlands, Canada made an inquiry directly to the INCB during the process of its deliberations

<sup>&</sup>lt;sup>88</sup> The INCB has been the subject of pointed criticism in recent years, for its secretive and opaque operational methods, its failure to engage civil society, its disingenuous claim to uniqueness within the UN system, and the frequent incongruence of its decisions with higher-order UN human rights and public health principles, (Barrett, 2008; Csete & Wolfe, 2007).

on the Céu do Montreal request, <sup>89</sup> and received an identical answer. <sup>90</sup> However, the INCB's determinations on drug policy matters relating to the international drug control conventions are not binding, especially when they uncharacteristically veer towards lenience. Thus, the fact that the INCB ruled that ayahuasca is not covered by the 1971 convention means that individual states may choose how to respond to the brew's distribution and use as they see fit. Unlike the Netherlands, Health Canada preferred to follow its own interpretation (which, perhaps not coincidentally, was identical to the position the U.S. government took in its case against the UDV), and claimed that:

Given that the plant from which Daime tea is sourced is not grown wild in Canada, Article 3(1) of the Convention (regarding preparations of substances controlled under the Convention) applies and Canada has an obligation to control Daime tea as it controls DMT. (p. 13)<sup>91</sup>

The Canadian government's sense of obligation to prohibit ayahuasca—ostensibly to protect the health and safety of its citizens, as this is the *raison d'être* of both domestic and international drug control—stands in stark contrast not only to the INCB's ruling on the matter, but also to the potential health and educational benefits of ritual ayahuasca drinking, which considerable accumulated anecdotal and growing preliminary scientific evidence suggests outweigh any risks for most healthy individuals (see the literature review in chapter 1).

In the case of the Netherlands, where a Santo Daime chapter was established in the 1990s and its leaders arrested and charged for possession and trafficking of a preparation of DMT in 1999, the courts ruled that the Santo Daime's use of ayahuasca was a bona fide religious practice and therefore protected by the European Convention on Human Rights (Adelaars, 2001; Van der Plas, forthcoming). Similar legal cases in other European countries—including Spain, Italy and France—have taken place in the early 2000s, all with rulings in favor of religious freedom. In the United Kingdom, the Santo Daime maintained an underground practice for many years, but

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<sup>&</sup>lt;sup>89</sup> Bouchard, C. (2004, January 22). [Letter to Herbert Schaepe]. Health Canada Access to Information documents, pp. 80-81.

Bouchard, C. (2004, June 7). [Letter to Herbert Schaepe]. Health Canada Access to Information documents, p. 108

<sup>&</sup>lt;sup>91</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis report—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. Specifically, see p. 387.

church leaders were raided, arrested and charged for drug crimes in September 2010 (Peacock, 2010). The general international trend in government reactions to the transnational expansion of the Brazilian ayahuasca churches has been initial legal action, followed by jurisprudential acceptance and governmental acquiescence to religious freedom arguments over drug control imperatives. One anomaly has been France, where although courts ruled in favour of the Santo Daime in a 2005 legal case, the government amended the law explicitly to prohibit *B. caapi*, *P. viridis*, and a number of other plants that contain DMT or harmala alkaloids (Erowid, 2005). As Schmidt notes, however, the Santo Daime faithful have tended to regard such persecution of their followers in Europe and elsewhere as a modern equivalent to the martyrdom of early Christians by Roman authorities, so punitive government responses have had little effect in dissuading them from their religious beliefs and practices (2007, pp. 218-219).

While the opinion of the INCB and the experiences of European countries are important considerations for any kind of drug policy analysis, what matters even more for the Canadian context is how the United States federal government has responded to ceremonial ayahuasca drinking. In May 1999, U.S. Customs Service officials made two separate seizures of ayahuasca brews being imported from Brazil: one destined for Santa Fe, New Mexico, where a *núcleo* (or branch) of the União do Vegetal was headquartered (Bullis, 2008), and the other for Ashland, Oregon, where the Church of the Holy Light of the Queen (like Céu do Montreal, founded as a branch of the CEFLURIS line of the Santo Daime) had been established (Goldman qtd. in Ball, 2009a). While neither of these seizures led to criminal charges, how the U.S. Department of Justice dealt with appeals in respective legal actions by both groups to permit them to import ayahuasca for sacramental consumption essential to their religious practice illustrates the degree to which the rhetoric of freedom in American political and public discourses is subordinated to the war on drugs ideology and actions of its government.

Although the UDV has not been as active expanding outside Brazil as the CEFLURIS branch of the Santo Daime, in 1993 Canadian-born Jeffrey Bronfman founded a *núcleo* of the church in New Mexico. <sup>92</sup> For the next several years, a small congregation quietly and discreetly practiced

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<sup>&</sup>lt;sup>92</sup> Jeffrey Bronfman is the grand-nephew of Samuel Bronfman, who built the Canadian distilling empire Seagram's and the initial family fortune by smuggling whiskey across the U.S. border in the 1920s, when alcohol prohibition

UDV rituals in Bronfman's Arroyo Hondo home, with hoasca imported from Brazil. Following the seizure of a shipment of its sacrament in 1999, UDV-USA leaders engaged in negotiations with the Department of Justice, seeking an administrative accommodation for their sacramental use of ayahuasca (UDV-USA, 2005). After failing to secure recognition of its First Amendment right of freedom of religion by this means, in November 2000 the church filed suit against the U.S. Attorney General, seeking a preliminary injunction preventing the Drug Enforcement Administration, the Customs Service, or other federal agencies from interfering with further importation and use of the sacrament fundamental to their religious practice (Bullis, 2008). In August 2002, the U.S. District Court granted a preliminary injunction restricting government interference with the religious liberties of UDV-USA members; however, the Federal Government appealed to the Tenth Circuit Court of Appeals, which twice upheld the original decision in the church's favour (UDV-USA, 2005). In February 2005, the Attorney General appealed to the U.S. Supreme Court, which agreed to hear the case.

The Supreme Court ruled unanimously in February 2006 to affirm the original injunction on behalf of the UDV. According to a summary by Boire (2006), the high court found that the Religious Freedom Restoration Act (or RFRA)—passed in 1993 to enshrine the right of Native American Church members to legitimately use their peyote sacrament (Smith & Snake, 1996)—"empowered federal courts to make a case-by-case determination of whether a federal law burdens a religious practice" (Boire, 2006, p. 20). Under the RFRA, the government has the onus to prove a compelling interest in enforcing drug laws that restrict religious freedom. In the UDV case, the government argued that a categorical prohibition of hoasca was warranted in order to protect the health and safety of UDV members, to prevent diversion of their sacrament to the illegal market, and to comply with the 1971 Convention on Psychotropic Substances, which obliges signatory states to prohibit any non-medical or non-scientific use of DMT or "preparations" of DMT, which the U.S. government interpreted (contrary to the determination of the INCB) as including ayahuasca.

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made such ventures extraordinarily profitable (Newman, 1978). However, Jeffrey reportedly had little connection to his family business, which was sold in 2000 to the French company Vivendi Universal for an estimated \$6.8 billion (Sharpe, 2001).

The Supreme Court agreed with the District Court's original 2002 decision that the evidence provided by the plaintiffs and defendants on the first two points was balanced (i.e., equally persuasive), but disagreed with its finding on the third point that ayahuasca was not covered by the 1971 Convention. According to the Supreme Court,

Hoasca is a "solution or mixture" containing DMT; the fact that it is made by the simple process of brewing plants in water, as opposed to some more advanced method, does not change that. . . . [T]he UDV seeks to import and use a tea brewed from the plants, not the plants themselves, and the tea plainly qualifies as a "preparation" under the Convention. (Gonzales v. O Centro Espirita Beneficente Uniao do Vegetal, 2006, p. 17)

However, the Supreme Court found that the government failed to carry its burden of proof on all three points, and so it upheld the granting of the preliminary injunction in favour of the UDV. Despite some overly sanguine media reports on the Supreme Court decision, the high court did not "legalize" ayahuasca drinking in the United States; indeed, the merits of the UDV's case were not at issue in the proceedings. However, it did expand the scope of the RFRA to a new kind of entheogenic practice by a different cultural group, beyond the sacramental use of peyote by Native Americans, and affirmed that the federal government cannot maintain a categorical prohibition on all non-medical uses of controlled psychoactive substances or preparations thereof (Boire, 2006; Bullis, 2008).

While the UDV case was wending through the U.S. courts, the leaders of the Church of the Holy Light of the Queen (CHLQ) in Oregon were following with great interest. Like the UDV in New Mexico, the CHLQ had been importing ayahuasca from Brazil and drinking in ceremonies according to its religious doctrines since the early 1990s, when in May 1999 U.S. Customs Service agents intercepted a shipment of the Daime tea. However, it was not until August 2008 that the CHLQ filed its own application for a preliminary injunction against the Department of Justice, which had refused to negotiate with the church for a religious exemption to the U.S. Controlled Substances Act. The CHLQ's legal action, like the UDV's, sought to prevent federal government interference with their members' religious practices and to allow importation and drinking of the Daime tea in ceremonial contexts, based on the provisions of the 1993 RFRA (Haber, Carrasco & Marmaduke, 2008). In the meantime, the church had sought and successfully received recognition from the Oregon Board of Pharmacy that its consumption of Daime tea was

a bona fide religious use which "does not constitute abuse of a controlled substance" (Oregon Board of Pharmacy, 2000, p. 2), and therefore was not subject to state laws or regulations.

As in the New Mexico UDV case, the Department of Justice was unwilling to concede any legal ground to the CHLQ, and the matter went to trial before the United States District Court of Oregon in late 2008. In March 2009, Judge Owen M. Panner ruled in favour of the CHLQ, guided in part by the precedent set for the expanded scope of the RFRA in the 2006 Supreme Court decision. Judge Panner found that the CHLQ unequivocally demonstrated the sincerity of its members' spiritual beliefs and the centrality of drinking Daime tea to their religious practice; conversely, he found that the federal government had failed to demonstrate either a compelling interest in prohibiting the CHLQ's use of their sacrament—which it had argued was necessary in order to protect health of church members, to prevent diversion to the underground illegal drug market, and to protect the integrity of the Drug Enforcement Administration's regulatory processes—or that categorical prohibition of ayahuasca was the least restrictive means of furthering its drug control interests (*Church of the Holy Light of the Queen v. Mukasey, et al.*, 2009). Panner's ruling granted a permanent injunction for the CHLQ to import and distribute their sacrament according to the doctrines of the Santo Daime. Unlike with the UDV case, however, the federal government has opted not to appeal the Oregon District Court ruling.

While many European countries and the United States have made ceremonial ayahuasca drinking matters of jurisprudence to be adjudicated through the courts, the government of Brazil took a rather different approach to policy questions of ayahuasca drinking, public health and religious freedom. Historically, Brazil has long struggled with issues of national identity arising from tensions between its Euroamerican coastal urban elite and its rural, or *sertão* (i.e., "backwoods"), *caboclo* and indigenous populations, which impacted how public health, policy and modernization evolved in that country (Lima, 2007). However, a new Brazilian constitution in the 1980s—following more than a decade of military rule—established solid liberal and egalitarian foundations for protections of Brazil's indigenous peoples (Barroso, 1995), and also greater institutional respect for autochthonous syncretic religious practices such as drinking ayahuasca for spiritual purposes.

The expansion of syncretic ayahuasca religions in Brazil to urban centres in the 1970s and the conversion of some celebrities to the Santo Daime led to greater public awareness about the brew, and subsequently a moral panic about non-medical drug use (MacRae, 1998). Following the arrest of a young Santo Daime member in 1981 in the state of Acre for possession of cannabis, the Brazilian Ministry of Health began looking into the Santo Daime and ayahuasca drinking in general (Silva Sá, 2010), and *B. caapi* was added to the Brazilian list of controlled substances in 1985. Concerned about the legal status of their sacrament, the UDV immediately petitioned the *Conselho Federal de Entorpecentes* (Federal Narcotics Council, or CONFEN) to rescind this decision; and, as MacRae relates, the council

adopted an unusually enlightened approach and set up multidisciplinary work groups made up not only of lawyers and policemen but also of doctors, social scientists and psychologists. Over a period of two years this group visited numerous ayahuasca using religious communities, examined and interviewed their followers and read newspaper reports. (1998, p. 329)

One of the members of this working group relates that their investigation involved not only the rigorous collection of facts at various communities in the Amazon and in urban centres, but also the participation of several of them in Santo Daime and UDV ceremonies to experience first-hand ayahuasca's effects in such contexts (Silva Sá, 2010; see also Polari de Alverga, 1999, chap. 10). In the meantime, while the government commission investigations were in process, the CONFEN agreed to remove *B. caapi* from the controlled substances list temporarily in a February 1986 resolution. <sup>93</sup> Following the conclusion of its research, the CONFEN working group recommended that this exclusion of *B. caapi* from prohibition remain permanent and that ayahuasca should be legal as a sacrament for religious groups (MacRae, 2010).

The CONFEN decision of the late 1980s was not the final word of the Brazilian government on ayahuasca use, although the religious freedom question of ayahuasca drinking has never become a jurisprudential matter before the courts in that country. In the 1990s, CONFEN was twice more directed to look into ayahuasca—based on a few complaints by disgruntled parents of church members, which were full of outlandish and baseless allegations (Silva Sá, 2010, pp. 175-179)—

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<sup>&</sup>lt;sup>93</sup> Lins e Silva, T. (1986, February 4). Federal Narcotics Council—Resolution 6. Brasilia: Ministry of Justice. Health Canada Access to Information documents, p. 374.

and "on both occasions it recommended tolerance with regards to the use of the brew in religious rituals" (MacRae, 2006, p. 408). However, in March 2004 a new Brazilian government body, the Conselho Nacional Antidrogas (National Antidrugs Council, or CONAD), asked its Technical and Scientific Advisory Panel to produce a report on various aspects of ayahuasca use. Based on this report, in November 2004 CONAD resolved to commission another multidisciplinary working group with a mandate "to survey and monitor the religious use of ayahuasca, and to oversee research on its therapeutic use, on an experimental basis."94 The CONAD multidisciplinary working group was to be composed of a dozen members, six academic experts and six representatives of Brazilian ayahuasca religions, which resulted in some political struggles when the selection process from among the various churches took place in March 2006.95 In November 2006, the group tabled its final report, with recommendations on various topics relating to ayahuasca, including commercial marketing, sustainable production, tourism, publicity, church organization and consumption by children and pregnant women.<sup>96</sup> It also established a set of ethical principles for the religious use of ayahuasca. In January 2010, CONAD issued another resolution that put in force the recommendations of the multidisciplinary working group. 97 However, one issue that was not addressed among the report's recommendations was the international expansion of the Brazilian churches and the bilateral trade implications of the growing demand for export of ayahuasca to foreign offshoot churches, such as Céu do Montreal. As I discuss below, this focus on domestic matters by the CONAD working group had practical implications for the Céu do Montreal Section 56 exemption decision.

<sup>&</sup>lt;sup>94</sup> Felix, J.A. (2004, November 8). CONAD—Resolution 5: Religious use of, and research on, ayahuasca [Translation by Multilingual Translation Directorate, Public Works and Government Services Canada]. Brasilia: Office of Institutional Security. Health Canada Access to Information documents, pp. 168-169.

<sup>&</sup>lt;sup>95</sup> Polari de Alverga, A. (2006, March 9). [Report on Rio Branco seminar to establish the CONAD multidisciplinary working group on ayahuasca—Translation by Multilingual Translation Directorate, Public Works and Government Services Canada]. Health Canada Access to Information documents, pp. 265-268.

<sup>&</sup>lt;sup>96</sup> Filho, D. X. d., Soares, E. L. C., Duarte, P. C. A. V., Silva Sá, D. B. G., Kosovsky, E., MacRae, E., et al. (2006, November 23). Multidisciplinary working group on ayahuasca—final report. [Translation by Multilingual Translation Directorate, Public Works and Government Services Canada]. Brasilia: Conselho Nacional Antidrogas (CONAD). Health Canada Access to Information documents, pp. 328-339.

<sup>(</sup>CONAD). Health Canada Access to Information documents, pp. 328-339.

97 Felix, J.A. (2010, January 25). CONAD—Resolution 1: [Translation by Andreas Hernandez]. Brasilia: Office of Institutional Security. Retrieved from <a href="http://www.bialabate.net/wp-content/uploads/2008/08/Resolution">http://www.bialabate.net/wp-content/uploads/2008/08/Resolution</a> 1 CONAD 25 Jan 2010.pdf

## 5.4 – Céu do Montreal's Section 56 Exemption Request

After Jessica Rochester founded Céu do Montreal in May 1996, she and a handful of other church members practiced their religion according to CEFLURIS doctrine (although also affiliated with another Brazilian Santo Daime line, Centro Eclético da Fluente Luz Universal Sebastião Mota de Melo, or CEFLUSMME) and imported the Daime sacrament with appropriate Brazilian agricultural export documents. The Céu do Montreal church was officially incorporated by Letters Patent in March, 2000. 98 However, in September 2000, the Canada Customs and Revenue Agency seized a shipment of Daime tea and turned it over to the Royal Canadian Mounted Police (RCMP) for chemical analysis. Laboratory tests confirmed the presence of DMT and harmala alkaloids in the brew, by which fact Daime tea was deemed to be a preparation of a controlled substance and its possession or distribution offenses under the Canadian criminal code. RCMP officers contacted Céu do Montreal to inform them that the seized brew would have to be destroyed, but at the same time provided them with contact information for Health Canada's Office of Controlled Substances, which they were told might consider a petition for a legal exemption allowing import and use of the sacrament. 99 Céu do Montreal sought legal counsel without delay, and secured the services of veteran Canadian civil rights lawyer Clayton Ruby.

On April 24, 2001, Health Minister Allan Rock received a letter from Clayton Ruby on behalf of Céu do Montreal and its leader Jessica Rochester requesting an exemption under Section 56 of the CDSA to allow the church to import, transport and administer Daime tea. Approximately a year later, Rochester wrote to Carole Bouchard—the Director of the Office of Controlled Substances and the Health Canada official directly in charge of all Section 56 exemption applications—to inquire about the status of her request and to extend an offer to meet "to answer

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<sup>&</sup>lt;sup>98</sup> Government of Canada. (2000, April 22). Government notices. *Canada Gazette* [Electronic version], *134*(17). Retrieved from http://www.gazette.gc.ca/archives/p1/2000/2000-04-22/html/notice-avis-eng.html

<sup>&</sup>lt;sup>99</sup> Rochester, J. W. (2006, February 22). [Letter to Dr. Domingos Bernardo, Representative of the Brazilian CONAD Scientific and Technical Advisory Panel on the multidisciplinary working group on ayahuasca]. Health Canada Access to Information documents, pp. 209-210.

<sup>&</sup>lt;sup>100</sup> Untitled document. (2006, February 28). [Briefing document on "Church of the Santo Daime"]. Health Canada, Access to Information documents, pp. 211-212.

any questions concerning the sincerity of [the Santo Daime] religion." In June 2002, Ms. Bouchard replied to Rochester by letter to decline the meeting offer, with an explanation that "the review of the submission . . . is still ongoing" and that "it would be premature for us to meet before the analysis is complete." <sup>102</sup> In February 2003, Ms. Bouchard wrote to Céu do Montreal's attorney, Clayton Ruby, with a further update and provided justification for the delayed response: "As this is the first request of this nature to be received at Health Canada, the analysis of the policy and legal implications must be carefully considered. Regretfully this is taking more time than anticipated."103 In September 2003, Rochester phoned Health Canada once more to inquire about the status of her request and to notify them that her lawyer was preparing "to go to court" over the matter. 104 Health Canada was aware of this possibility, as an early draft of a Daime tea "Issue Analysis" document states that "from the content and tone of the application submitted by Mr. C. Ruby on behalf of Céu do Montreal, it is quite clear that a Charter challenge would follow a decision to deny an exemption" (p. 12). 105 Carole Bouchard returned Rochester's call in October—after consulting with staff about how to justify their lengthy analysis process <sup>106</sup>—and gathered additional information about Céu do Montreal. In February 2004, Carole Bouchard sent a letter to Rochester acknowledging receipt of an information package provided by Clayton Ruby in December, 2003, and outlining a series of further questions on logistical matters pertaining to Daime tea administration, its typical quantity and potency, and Céu do Montreal's storage and security provisions. 107

The already lengthy process of Health Canada's decision making on Céu do Montreal's Section 56 exemption request seemed to be nearing an end when, in June 2004, the Office of Controlled Substances sent a letter to Clayton Ruby advising that, pursuant to the additional information

 <sup>&</sup>lt;sup>101</sup> Rochester, J.W. (2002, March 10). [E-mail to Carol Bouchard, Director, Health Canada Office of Controlled Substances]. Health Canada Access to Information documents, pp. 6-7.
 <sup>102</sup> Bouchard, C. (2002, June 10). [Letter to Jessica Rochester, President, Céu do Montreal]. Health Canada Access

Bouchard, C. (2002, June 10). [Letter to Jessica Rochester, President, Céu do Montreal]. Health Canada Access to Information documents, p. 8.

<sup>&</sup>lt;sup>103</sup> Bouchard, C. (2003, February 7). [Letter to Clayton Ruby, Attorney for Céu do Montreal]. Health Canada Access to Information documents, p. 14.

Anonymous. (2003, September 30). [Action request note to return telephone call, from Jessica Rochester to Carole Bouchard]. Health Canada Access to Information documents, p. 49.

<sup>&</sup>lt;sup>105</sup> LeCavalier & Associates. (n.d.) [Draft Issue Analysis report—"Daime tea master document"]. Health Canada Access to Information documents, pp. 54-66. See p. 65.

<sup>&</sup>lt;sup>106</sup> Sunstrum, C. (2003, September 30). [E-mail to Carol Bouchard, Director, Office of Controlled Substances]. Health Canada Access to Information documents, p. 52.

<sup>&</sup>lt;sup>107</sup> Bouchard, C. (2004, February 3). [Letter to Jessica Rochester, President, Céu do Montreal]. Health Canada Access to Information documents, pp. 86-87.

provided by Rochester, "our analysis is now nearing completion" and that the applicants would be advised once a determination had been made. However, in September 2004 this was followed by another letter, conveying news of a further complication and delay:

We [Health Canada] have since received correspondence from the National Health Surveillance Agency of Brazil dated August 3, 2004, which states that although the use of Daime Tea during religious ceremonies is legal in Brazil, ". . . exportation of the tea is forbidden according to a regulation published on 2002 . . . of the National Antidrugs Council (CONAD)." <sup>109</sup>

This information came to Health Canada following a solicitation of information from Mr. Kleber Pessoa de Melo, the head of the Brazilian National Health Surveillance Agency, about public safety, public health or other issues relating to the religious use of ayahuasca. Health Canada indicated they would seek clarification from Brazilian authorities, but that "in the interest of avoiding further delays," they would also appreciate input from Céu do Montreal on the new apparent complication. 111

In response to this development, in October 2004 Alex Polari de Alverga, the Executive Director of CEFLURIS in Brazil, provided Jessica Rochester a letter outlining what he understood about the information Health Canada had been given by the Brazilian National Health Surveillance Agency and why he believed it was erroneous. 112 According to Polari de Alverga, Brazilian police authorities had made an arbitrary and unauthorized seizure of Daime tea en route to the Netherlands in 2001, and since then CEFLURIS had been appealing to various Brazilian government officials and CONAD to affirm that the export of Daime to accredited international offshoot churches was legal. Polari de Alverga suggested that as a result of this process of education and lobbying, in an August 2004 meeting the CONAD committee had "formally considered and approved" the CEFLURIS request for government recognition of its right to

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<sup>&</sup>lt;sup>108</sup> Schopf, T. (2004, June 8). [Letter to Clayton Ruby, Attorney for Céu do Montreal]. Health Canada Access to Information documents, p. 115.

<sup>&</sup>lt;sup>109</sup> Sunstrum, C. (2004, September 20). [Letter to Clayton Ruby, Attorney for Céu do Montreal]. Health Canada Access to Information documents, pp. 133-134.

Bouchard, C. (2004, January 22). [Letter to Kleber Pessoa de Melo, Brazilian National Health Surveillance Agency]. Health Canada Access to Information documents, pp. 84-85.

Sunstrum, C. (2004, September 20). [Letter to Clayton Ruby, Attorney for Céu do Montreal]. Health Canada Access to Information documents, pp. 133-134.

<sup>&</sup>lt;sup>112</sup> Polari de Alverga, A. (2004, October 26). [Letter to Jessica Rochester, President, Céu do Montreal—Translation by Multilingual Translation Directorate, Public Works and Government Services Canada]. Health Canada Access to Information documents, pp. 158-159.

export Daime tea, and that they were awaiting publication of the official CONAD administrative documents affirming this resolution. 113 However, Health Canada's attempts to confirm this with the Brazilian government in a timely manner were confounded by a lack of response from Brazilian authorities well into the following year. 114

In a telephone meeting with Health Canada officials in February 2006, Rochester reported that Polari de Alverga had been overly optimistic in his expectation that the August 2004 CONAD meeting would immediately resolve the export issues for Brazilian ayahuasca churches. 115 However, as discussed above, the CONAD had commissioned a multidisciplinary working group in November 2004 to study the religious use and therapeutic potential of ayahuasca, and so Rochester was able to inform Health Canada that a meeting of this group planned for March 2006 was expected to include discussions about exportation of ayahuasca to offshoot chapters of the Brazilian churches. In order to ensure the CONAD working group was aware of Céu do Montreal's interest in their deliberations, Rochester sent a letter to one of its members—the representative of CONAD's Scientific and Technical Advisory Panel—expressing her hopes for a resolution to the export permission question and providing the contact information for Carole Bouchard at Health Canada. 116

Despite the absence of clear export regulations in Brazil, senior officials in the Health Canada bureaucracy were already at the point of making a decision on the merits of Céu do Montreal's Section 56 exemption application. In May 2006, the Office of Controlled Substances Program Management Committee<sup>117</sup> and the Healthy Environment and Consumer Safety Sub-Committee on Risk<sup>118</sup> were presented with an overview of the Daime tea exemption request (accompanied,

<sup>&</sup>lt;sup>113</sup> Polari de Alverga, A. (2004, October 26). [Letter to Jessica Rochester, President, Céu do Montreal—Translation by Multilingual Translation Directorate, Public Works and Government Services Canada]. Health Canada Access to Information documents, pp. 158-159.

<sup>&</sup>lt;sup>114</sup> Sunstrum, C. (2005, July 5) [E-mail to Paulina do Carmo Arruda Vieira Duarte, Brazilian National Anti-Drugs Secretariat]. Health Canada Access to Information documents, p. 194.

<sup>115</sup> Kingdom, E. (2006, February 16). [E-mail to Cynthia Sunstrum, Manager, Policy and Regulatory Affairs, Office of Controlled Substances]. Health Canada Access to Information documents, p. 206.

<sup>&</sup>lt;sup>116</sup> Rochester, J. W. (2006, February 22). [Letter to Dr. Domingos Bernardo, Representative of the Brazilian CONAD Scientific and Technical Advisory Panel on the multidisciplinary working group on ayahuasca]. Health Canada Access to Information documents, pp. 209-210.

Health Canada. (2006, May 15). [Issue sheet for "Quick Hits" meeting attended by Directors of Health Canada's Drug Strategy and Controlled Substances Programme]. Health Canada Access to Information documents, p. 220. Desjardins, S. (2006, May 15). [E-mail to Asha Bajwa]. Health Canada Access to Information documents, p. 243.

as mentioned above, by a superficially similar request pertaining to khat) and informed that the recommended decision was to grant Céu do Montreal an exemption in the public interest. On July 31, 2006, Beth Pieterson, Director General of Health Canada's Drug Strategy and Controlled Substances Programme at the time, sent a letter to Jessica Rochester informing her that Health Canada had concluded its investigations and approved "in principle" the recommendation to grant a Section 56 exemption. 119 The recommendation was conditional upon the still-pending authorization for export of Daime tea by the Brazilian government and, when approved and finalized by the Minister of Health, subject to a number of terms and conditions regarding storage, security, distribution, disposal, potency and record-keeping. 120 Notably, how the Office of Controlled Substances describes their decision illustrates Health Canada's reluctance, or perhaps inability, to regard ayahuasca as anything other than a preparation of controlled substances: "It is therefore recommended that a s.56 exemption in the public interest (religious purposes) be issued to permit the import, possession, and administration of DMT, harmalol and harmaline in the form of Daime tea" (p. 15, underline original). 121 The careful wording of this recommendation demonstrates an implicit ideological commitment to the reductionism and pharmacological determinism of the drug war paradigm, discussed in the previous chapter, as it focuses on the trace chemical compounds in the brew as if they were somehow magical or demonic forces that could escape and wreak havoc without Health Canada's careful oversight. Nevertheless, the "in-principle" approval and recommendation to exempt Daime tea represents a historic moment for both human rights and drug policy in Canada, as it is the first acknowledgement in this country of the legitimacy of an entheogenic use of an illegal psychoactive substance.

After the 2006 notification of approval "in principle" of a Section 56 exemption, the Céu do Montreal case was stalled by a bilateral stalemate between the Canadian and Brazilian governments. This bureaucratic catch-22 presented itself because Health Canada insisted that in order for Céu do Montreal to import Daime tea, it needed to receive appropriate export

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<sup>&</sup>lt;sup>119</sup> Pieterson, B. (2006, July 31). [Letter to Jessica Rochester, President, Céu do Montreal]. Health Canada Access to Information documents, pp. 276-277.

<sup>&</sup>lt;sup>120</sup> Pieterson, B. (n.d.). [Draft letter of exemption under Section 56 in the public interest]. Health Canada Access to Information documents, pp. 280-285.

<sup>&</sup>lt;sup>121</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 389.

documents from Brazil. However, such official permission to export ayahuasca from Brazil could not be arranged with a country that had not already authorized import (although shipments from Brazil to countries that *had* authorized import—such as the Netherlands, Spain and the United States, following legal rulings allowing religious use in those jurisdictions—was not prohibited). Thus, because Canada had not authorized import (and would not do so until Brazil authorized export), formal arrangements for how Céu do Montreal could legally secure supplies of its sacrament were deadlocked. Between 2006 and early 2011, no progress was made on this matter, and no Section 56 exemption has yet been issued.

However, in November 2010, Jessica Rochester notified Health Canada that Céu do Montreal was amending its application. In their 2001 application, affiliations with two Brazilian Santo Daime organizations were listed, CEFLURIS and CEFLUSMME. In 2002, Céu do Montreal terminated its affiliation with CEFLUSMME due to its concerns about ethical misconducts on the part of senior members of CEFLUSMME. In autumn 2010, Céu do Montreal also terminated their affiliation with CEFLURIS based on concerns about its adherence to applicable regulations and the management of its international expansion. Céu do Montreal is currently exploring options for a new Brazilian affiliation and awaits a response from Health Canada on its request for interim import permission in order to complete the exemption process (J. Rochester, personal communication, December 15, 2010). Also at the end of 2010, another Canadian Santo Daime chapter, Céu do Tillsonburg, submitted its own application for a Section 56 exemption in the public interest and awaits a response from Health Canada (Céu do Tillsonburg, personal communication, January 2, 2011).

How long the Céu do Tillsonburg request may take to process and what its outcome will be remains to be seen. However, it is worth noting that more than five years passed between when Céu do Montreal submitted its application in April 2001 and when Health Canada made a decision to grant and notify the church of an approval "in principle" for its exemption. The fact that it was not until March 2003—twenty three months after the Office of Controlled Substances received the initial application—that a first draft of an Issues Analysis Summary document for the file was prepared suggests that the bureaucracy may have been delaying serious engagement on the matter (although it is also possible that workloads or other internal factors prevented more

timely turnaround). There are few written records between April 2001 and March 2003 other than correspondences between Health Canada and Clayton Ruby, so reconstructing what work was done on the file at that time is impossible from the documents released in response to my Access to Information request.

However, a criminal trial in Northern Ontario related to the death of a Wikwemikong First Nations elder in fall 2001—which was erroneously reported in the media as causally attributable to "ayahuasca"—may have been a contributing factor to the seemingly lengthy delay on the Céu do Montreal exemption request. Indeed, this case is discussed in a February 2008 Health Canada Issue Analysis Summary on Daime tea, where it is claimed in a section on risk to public health and safety that "there has been an incident of a death in Canada as a result of the ceremonial use of Daime tea" (p. 15). 122 It is reasonable to assume that Health Canada may have delayed action on the Céu do Montreal request for most of 2002, while the alleged "Daime tea" death was before the courts. However, the facts of the unfortunate death of Jane Maiangowi demonstrate that Health Canada's Office of Controlled Substances seriously misunderstood both the nature of that case and the implications it had for the Céu do Montreal exemption (and potentially other future ayahuasca policy decisions).

In October 2001, a Shuar healer (indigenous Ecuadorian) named Juan Uyunkar was invited by members of a Canadian First Nation community to conduct shamanic rituals as part of a cultural exchange in Wikwemikong, Ontario, a reserve on Manitoulin Island in Lake Huron, southwest of Sudbury. According to the healing traditions of his traditional ethnic heritage, Uyunkar used *natem*—the Shuar name for a decoction of *B. caapi*—as well as preparations of strong Amazonian tobacco in his rituals (Bonenfant & Bolsanello, 2003). On the final night of a series of three ceremonies, one of the participants, Jane Maiangowi, aged 71 and suffering from diabetes, died unexpectedly (Ottley, n.d.). The incident ultimately led to criminal charges against Uyunkar, including Trafficking in a Controlled Substance and Administering a Noxious Substance. The controlled substance in question was harmaline, which laboratory analysis established was in the *natem* that Uyunkar provided. DMT was not detected, as Uyunkar did not

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<sup>&</sup>lt;sup>122</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 389.

prepare his *natem* with *P. viridis*, the plant most commonly added to standard ayahuasca preparations, such as Daime tea. Media reports in local and Canadian national newspapers described the so-called noxious substance as "ayahuasca" (Dubé, 2003a; 2003b; Erskine, 2003), even though it was not a decoction that resembled the usual brew of that name. Furthermore, there was no evidence that the *B. caapi* in Uyunkar's *natem* preparation had any causal link to Maiangowi's death: a coroner's report ruled the cause of death as "acute nicotine intoxication," and the judge noted that Maiangowi has been given copious amounts of a tobacco preparation in addition to *natem*. <sup>123</sup> Uyunkar pled guilty to the charges and served one-year community sentence in Wikwemikong before returning to Ecuador. However, the public maligning of ayahuasca from this unfortunate incident—although unwarranted, based on the facts of the case—took place not only in the popular media, but also in an uncritical academic journal article (Warren, 2004), and became a factor in Health Canada's decision-making considerations. <sup>124</sup> Furthermore, the confusion of *natem* with "Daime tea" in their Issue Analysis Summary document suggests that Health Canada's bureaucratic decision makers had at the time a superficial understanding of the various kinds and contexts of ayahuasca drinking.

Health Canada's Issue Analysis Summary (2008), in particular, demonstrates a pervasive confusion between the Daime sacrament and other kinds of decoctions of *B. caapi*, such as other ayahuasca preparations with *P. viridis* not prepared according to Santo Daime traditions, decoctions with other tryptamine-containing plant admixtures, or the *natem* brew used in conjunction with tobacco by Shuar healers such as Juan Uyunkar (Bonenfant & Bolsanello, 2003). For example, the Issue Analysis Summary asserts that "in Brazil, Daime tea has been used for centuries" (Office of Controlled Substances, 2008, p. 6), that "Daime tea is listed in Schedule I to the CSA [Controlled Substances Act] in the United States" (2008, p. 13), and that "there has been an incident of a death in Canada as a result of the ceremonial use of Daime tea" (2008, p. 15). All of these assertions are incorrect, and demonstrate an over-extension of the term "Daime tea"—which denotes exclusively the brew prepared and consumed according to the respective doctrines of various branches of the Santo Daime—to refer to ayahuasca or *B. caapi* preparations

<sup>&</sup>lt;sup>123</sup> Although deaths from tobacco are more commonly associated with chronic use, its primary alkaloid constituent, nicotine, can be fatally toxic to humans at high enough doses (Lavoie & Harris, 1991).

<sup>124</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section

<sup>56</sup> of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 389.

generally. Simply put, the Office of Controlled Substances does not demonstrate an understanding that while all Daime tea is ayahuasca, not all ayahuasca is Daime tea.

In this section, I have summarized the important aspects of the chronology and trajectory of Health Canada's decision-making process relating to Céu do Montreal's request for a Section 56 exemption in the public interest. In the following sections, I provide some analysis of this process, focusing on three important aspects of what public policy is and how it is made, using discursive policy analytic approach (Fischer, 2003; see also chapter 2 above). The first is the question of problem definition: what is the context in which ayahuasca drinking has been identified and defined as a problem and how, in turn, does this frame or otherwise set parameters for solutions? Second is the question of who are the *policy actors*, the various government and non-government stakeholders who have an interest in and, to greater or lesser degrees, influence on the shaping of policy. Third is the question of knowledge, including how information or experience becomes authoritative knowledge that informs policy and how policy can influence the production of knowledge. Although various theories of policy analysis may include other aspects of policy development and implementation, these three questions are central to most policy analysis approaches and are important in understanding ayahuasca in the Canadian policy context and Health Canada's precedent-setting decision on the Céu do Montreal Section 56 exemption request.

## 5.5 – Policy Analysis: Problem Definition

An important consideration in any kind of public policy analysis is the matter of problem definition (sometimes referred to as agenda-setting), which is a central aspect of liberal-democratic policy making, but is rarely a simple or straightforward activity; indeed, "problems are not simply recognized or not: they have to be discerned, shaped, articulated and defended" (Pal, 2001, p. 94). Identifying and defining a problem requires information about the origins, severity, incidence, proximity and effects of a social or political situation. Timing is important, as public attention and mood may shift with changing political tides, and values also complicate the problem definition process, as "bureaucrats and politicians operate within a broader political framework, defined by such factors as prevailing ideologies, assumptions and values, structures of power and influence, patterns of conflict and division, and so on" (Simeon, 1976, p. 549).

With respect to the discursive policy analytical approach, it is important also to recall that "the problems which governments seek to resolve are not just considered to have an 'objective' base in the economy or material structure of the society, but are also constructed in the realm of public and private discourse" (Fischer, 2003, p. 61). In chapters 3 and 4, I outlined the history of the international drug control regime and the hegemonic drug war paradigm, explaining in detail how broader socio-historical factors have affected the discourses of contemporary drug policy and the way in which many modern governments have construed ayahuasca as a preparation of a "drug of abuse" and generally sought to prohibit its ceremonial use. With this as important historical and political context, I will expand on some of the salient proximal factors in how Health Canada defined the Santo Daime's ceremonial ayahuasca drinking as a policy problem in an Issue Analysis Summary of the case (Office of Controlled Substances, 2008). 125

The Issues Analysis Summary, updated by the Office of Controlled Substances in February 2008, is the last and most recent record in the Access to Information documents obtained for my research. It outlines for senior decision-makers a comprehensive summary of the policy problem as defined by the Office of Controlled Substances, including:

what is currently known about the pharmacology, dependence potential, and abuse potential associated with Daime Tea and the controlled substances contained within it, with a view to determining whether the importation, possession and administration of Daime Tea for the purposes of use in religious ceremonies to be carried out by the Céu de Montréal poses any undue health and safety risks to the members of the Church and/or the general public. (p. 1)<sup>126</sup>

This statement of purpose suggests that Health Canada has the health and safety of Canadians as its primary concern. However, as I will elucidate below, such ostensible concern may in fact be subordinate to other government priorities, some of which are evident in how they define ayahuasca as a policy problem.

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<sup>&</sup>lt;sup>125</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395.

<sup>&</sup>lt;sup>126</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 375.

A key element of policy problem definition is determining a "problem population," or what segments of society are seen as constituting or being at risk for affliction with the problem (Rochefort & Cobb, 1994). Sharp (1994) notes that from the U.S. perspective—which has strongly shaped Canadian and international drug policies—there have been two competing images of the problem population with respect to illegal psychoactive substance use. The first is youth, who are often represented in political discourses as vulnerable to or "at risk" for drug use; the other is ethnic or racial minorities, whose real or perceived uses of substances such as alcohol, cocaine, cannabis, peyote and opium have been the subject of various moral panics over the past century. Although these two problem populations constitute only a small segment of all people who use illegal drugs, they have both served as significant symbols in galvanizing different kinds of responses. As Sharp puts it: "[o]n the one hand, the drug users are strange, threatening and undeserving of our sympathy; on the other hand, drug users are the most familiar, sympathetic, and deserving characters of all—our children" (1994, p. 105). The tensions between criminal justice, public health and human rights perspectives on defining the drug problem hinge to some degree on varying emphases on who comprises the problem populations (along with the drug metaphors implicit in the modern discourse of the drug war paradigm, discussed in chapter 4 above).

The question of youth as a problem population for the Céu do Montreal Section 56 exemption request was obviated by the church's affirmation to Health Canada that "only adults over the age of 18 may participate in Church services where Daime tea is consumed" (Office of Controlled Substances, 2008, p. 8). 127 However, it is important to note that in Brazil the ayahuasca churches allow children and youth not only to be present in rituals, but also to drink ayahuasca if they so choose. Moreover, this practice has no apparent negative health effects (Silva Sá, 2010), but rather promising indications of positive psychological and social effects among adolescents (Da Silveira, et al., 2005; Dobkin de Rios, et al., 2005; Doering-Silveira, Grob, et al., 2005; Doering-Silveira, Lopez, et al., 2005). Nevertheless, in the Canadian context, where the Céu do Montreal congregation has yet to establish the right even for adults to partake of the Daime sacrament, it is

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<sup>&</sup>lt;sup>127</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 383.

not surprising that church leaders submitted an age restriction precluding those under the age of majority from participation.

The other common sub-populations historically associated with illegal drug use and thus as problem groups are ethno-cultural, especially non-Christian, minorities (Gagliano, 1994; Helmer, 1975; Manderson, 1997; Musto, 1999). However, in the case of Health Canada's policy decision on Céu do Montreal's Section 56 exemption request, the applicants' religious affiliations with Christianity challenge stereotypical assumptions about who uses illegal drugs. In its Issue Analysis Summary (2008), Health Canada describes the Santo Daime as "a Christian syncretic religion . . . officially recognized by the Brazilian government" (p. 8). 128 The central sacrament of its religious practice is respectfully described as "analogous to the Christian Eucharist" (p. 8), and it is noted that "church members believe the tea helps them to directly experience the divine" (p. 8). The fact that the Santo Daime is a syncretic Christian practice may have been a critical factor in successfully securing a decision "in principle" to grant a Section 56 exemption. The analogy of the Daime tea with the Christian Eucharist provides a frame of reference to policy makers in a Canadian context that allows them to make sense of an otherwise strange and foreign ritual practice. However, the report's explicit identification of Daime tea with a familiar Christian sacrament belies the fact that ayahuasca was a traditional indigenous medicine (or cognitive tool, as per the concept of entheogenic education) long before it was integrated into a syncretic Christian religious practice.

Indeed, another analogy Health Canada draws to in order to represent the Santo Daime's religious practices is with "the consumption of peyote (mescaline) as a sacramental ritual of the Native American Church" (Office of Controlled Substances, 2008, p. 8). However, the Native American Church's incremental successes in achieving legitimacy in the United States through the 20<sup>th</sup> century were arguably predicated on the fact that it, too, was a syncretic practice which bore at least superficial resemblances to the dominant religious faith in the United States (i.e.,

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<sup>&</sup>lt;sup>128</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 382.

Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 382.

Christianity) and did not fundamentally challenge the religiously ethnocentric views of American law-makers. <sup>130</sup> As Calabrese argues, "rationalizations of Euro-American attacks on followers of the Peyote Religion have shifted over the centuries from the eradication of sinful activity according to the Christian model, to debates over the 'validity' of the mystical experiences induced by a 'chemical'" (2001, p. 7). Likewise, an American legal scholar asserts that "the history of peyote law provides a striking example of the centrality of Christianity within the American legislative and judicial branches, thereby exposing the myth of secular jurisprudence and legal objectivity" (Soni, 2005, p. 33). It is questionable whether an application for a Section 56 exemption by an ayahuasca drinking community without an explicit Christian affiliation—such as the more overtly indigenous-style *vegetalismo* practices that are also becoming common across Canada, and which will still be criminalized even when the Céu do Montreal's request is finally approved—would have been regarded as favourably in such a ground-breaking policy matter.

While any application for a Section 56 exemption to permit an entheogenic substance use practice such as the Santo Daime's would have to be judged on its specific merits, the underlying Eurocentric and neo-colonial factors at play in how such practices may be regarded and judged by Canadian authorities are important considerations. For example, the concept of "diffusionism" proposed by Blaut (1993) identifies latent binary assumptions about a "core" (i.e., Euroamerican values and principles) and a "periphery" (i.e., indigenous beliefs and practices), which are still very much prevalent in modern Western governance ideals. According to this binary model, the core displays characteristics such as inventiveness, rationality, discipline, adulthood, sanity, science and progress; the periphery, on the other hand, is characterized by qualities such as imitativeness, emotion/instinct, spontaneity, childhood, insanity, sorcery and stagnation (Blaut, 1993, p. 17; see also Smith, 1999, chap. 3). The reactionary impetus by most states immediately to proscribe ayahuasca as a "drug of abuse" according to contemporary drug control laws—without any attempt to investigate its traditional status as a plant teacher among

<sup>&</sup>lt;sup>130</sup> The Christian syncretism may be a necessary, but not sufficient, condition for achieving religious freedom protections involving the use of controlled substances, as Rastafarian or Ethiopian Zion Coptic church examples in the United States and elsewhere suggest (Mazur, 1991)

<sup>&</sup>lt;sup>131</sup> The core-periphery binary is a foundational concept in Wallerstein's world-systems analysis, although he also identifies a semi-periphery zone of economic "development" to which periphery states aspire (Shannon, 1989, chap. 4).

Amazonian indigenous or *mestizo* communities (Luna, 1986; Tupper, 2002b)—reflects the diffusionist concerns inherent in modern representations of the transmission of traditional indigenous knowledge and cultural practices. Indeed, Blaut (1993) suggests that modern authorities harbour latent concerns that atavistic beliefs could counter-diffuse back into Eurocentric society and contaminate the civilized core. As I have argued, "ayahuasca and the altered states of consciousness it produces are presumably examples of the kinds of perceived maleficent subversion that authorities fear might impinge on modern civil society" (Tupper, 2009a, p. 122—see Appendix). For this reason, it is no surprise that syncretized Christian ayahuasca drinking practices are the vanguard of the brew's legitimation in Canada, and that the Céu do Montreal congregation resists being cast as a stereotypical problem population of illegal drug users. Even though Santo Daime practices—insofar as they involve the ingestion of a psychoactive substance and the alteration of consciousness—are already at the edge of the coreperiphery interface, the fact that they take place within a Christian liturgical context provide them with enough familiarity to make them tolerable for the religious ethnocentrism implicit in Canadian legal and policy decision making. <sup>132</sup>

The application for a Section 56 exemption by Céu do Montreal invokes another potential problem population through the statutory language of the *Controlled Drugs and Substances Act* itself, which identifies the national Canadian "public" and its interest as a legitimate reason for which the Minister may grant an exemption. Thus, the concept of a "public" itself is a crucial, yet not unproblematic, one for a critical policy analysis of this case. When preceded by the definite article "the"—which functions linguistically to delimit its referent to a situation- or discourse-specific set (Lyons, 1980)—the noun "public" presumes "a kind of social totality. . . . even though to speak of a national public implies that others exist" (M. Warner, 2002, p. 49). However, what gives "public" its unique conceptual sense, different from superficially related terms such as "people," "population," or "folk," is that it is constitutively related to the use of language, which casts "the constitution of a public as a multicontextual space of circulation, organized not by a place or an institution but by the circulation of discourse" (M. Warner, 2002,

<sup>&</sup>lt;sup>132</sup> Beaman (2003) argues that, despite official pretentions to secular pluralism in Canadian legal and policy decision making, a Protestant religious hegemony prevails with respect to legitimization of minority spiritual or religious practices. She paraphrases Day and Brodsky (1996) in suggesting that "the notion of reasonable accommodation [of religious practice] is prefaced on an understanding that there is a 'normal' standard, set by powerful groups against which minorities are measured and, if warranted, accommodated" (Beaman, 2003, p. 321)

p. 85). Thus, making determinations about the "public interest" in relation to psychoactive substance use necessarily requires participating in the broader discursive context of the modern drug war paradigm. Yet, as I illustrated in my discussion of dominant public and political discourses about psychoactive substances in chapter 4, the drug war paradigm imposes a policy frame that focuses exclusively on perceived harms of illegal psychoactive substances (and preventing them through supply or demand reduction, and categorically prohibiting all non-medical or non-scientific uses) with no attention to potential benefits.

The meaning and contemporary political implications of the concept of a "public" and publicity has been taken up by the critical theorist Nancy Fraser (1990), who challenges some of Habermas' (1962/1989) ideas about the origins of modern public sphere. One of Fraser's critiques of Habermas is that his "account stresses the singularity of the bourgeois conception of the public sphere, its claim to be *the* public arena in the singular" (Fraser, 1990, p. 66, italics original). Countering this, Fraser argues that rather than "a single, comprehensive public" (p. 69), there is a plurality of publics—including "subaltern counterpublics" (p. 67). By this proposed term, Fraser means that there are "parallel discursive arenas where members of subordinated social groups invent and circulate counterdiscourses, which in turn permit them to formulate oppositional interpretations of their identities, interests, and needs" (Fraser, 1990, p. 67). Furthermore, systemic aspects of how mass news media contribute to political agenda-setting (Lancaster, Hughes, Spicer, Matthew-Simmons & Dillon, 2010; McCombs, 2004) have ensured that the voices of moral entrepreneurs and certain professional classes (such as police and physicians) have constituted a hegemonic authority about illegal psychoactive substances in public discourse, and rendered the "counterpublic" voices of people who used illegal psychoactive substances largely absent from the public sphere. 133 Accordingly, people who

<sup>&</sup>lt;sup>133</sup> The means by which public and professional discourses contribute to informing the self-identity of people who use psychoactive substances is discussed briefly further below, but it is pertinent to note here that openly self-identified "drug users" (i.e., people who use illegal psychoactive substances) for most of the 20th century had little opportunity to participate directly in the public sphere in meaningful ways, especially for impacting government policy (Jürgens, 2005). The 1960s bourgeois youth counter-culture, inspired in no small part by psychedelics such as mescaline and LSD, opened new and potentially emancipatory discursive possibilities for public self-representations of people who use psychoactive substances; however, it was not until the post-AIDS era of harm reduction that some limited avenues opened for the voices of the most highly marginalized among this group—people who inject for unauthorized or non-medical purposes—to engage with policy makers (Kerr, et al., 2006; Mold & Berridge, 2008; Osborne & Small, 2006). People who use drugs are, according to Nancy Fraser's terminological definition, subaltern counterpublics *par excellence*. Perhaps the only groups of people whose voices have been more deprecated in, and

engage in entheogenic substance use such as ayahuasca drinking are an unambiguous counterpublic, although their subaltern status is not so much socio-economic as it is political, through their status as a perceived problem population in eyes of drug control authorities.

Successfully defining a policy problem also requires that policy makers consider it a social phenomenon meriting political attention and investment of scarce bureaucratic or fiscal resources. This includes estimating its incidence—whether the problem is perceived to be, or actually is, increasing or decreasing over time—and its proximity—whether the problem is one of personal relevance to a large number of individuals. As discussed in chapter 1, the prevalence and incidence of ayahuasca drinking in Canada are difficult to estimate, as no population drug surveys explicitly ask about the brew; furthermore, with respect to the Daime tea, a distinction would need to be made between experimental drinking (i.e., one or a few times for guests) and regular drinking by full or aspiring Santo Daime church members following the ritual cycle of the CEFLURIS doctrine. With respect to the Céu do Montreal Section 56 exemption decision, Health Canada reports that "the Santo Daime religion is practised by approximately 80 persons located in Montreal, Quebec (Céu do Montréal), Tilsonburg [sic], Ontario and Toronto, Ontario" (Office of Controlled Substances, 2008, p. 8). Thus, while the government's policy decision-making process was underway, the new religious movement was expanding: today the Santo Daime has at least three chapters in Quebec and four in Ontario.

Proximity, as an aspect of defining a policy problem, refers to whether a social phenomenon is perceived to have an impact on people's lives—if not, its chances of being a priority for government policy agendas are considerably lower. An issue's proximity, then, is the degree to which "it hits close to home or directly impinges on a person's interest," (Rochefort & Cobb, 1994, p. 21) and may apply to both policy formation and policy interpretation. Proximity is in large part a function of circulations of public discourse in geographic or jurisdictional contexts, how an issue is socially constructed through language use in particular communities or regions. I

systematically excluded from, the contemporary public sphere than those of illegal drug users are outlaw drug growers, manufacturers and distributors (Coomber, 2006)—the notorious "dealer," whose entrepreneurial and venture capitalist spirit would be highly valued and rewarded if they worked in any other field.

<sup>&</sup>lt;sup>134</sup> See chapter 1 discussion of Santo Daime's CEFLURIS doctrine.

<sup>&</sup>lt;sup>135</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 382.

have already alluded to the mass media's important role in this process, and how what Reinarman (1994) describes as the "social construction of drug scares" has been a function of media representations of psychoactive substances since the early modern origins of the public sphere. However, as an object of media attention, ayahuasca has until recently remained relatively obscure, at least relative to more commonly known substances such as cannabis, psilocybin mushrooms or LSD. Indeed, an early record of Health Canada's preliminary inquiries on ayahuasca, assigned to a consultant immediately following notification that Céu do Montreal would be submitting an exemption application in April, 2001, suggests they had no knowledge of the brew whatsoever. Still today, in my experience, it is not uncommon to find even professionals in the fields of drug policy, public health, or law enforcement who have never heard of it. Thus, it seems the proximity of ayahuasca as a policy problem was not an illegal drug matter that was apparent to Health Canada when Céu do Montreal submitted its Section 56 exemption request.

However, among the small but growing number of English-language popular media stories about ayahuasca in the past decade, representations of the brew and those who drink it do not accord with the stereotypical disparagement of non-medical psychoactive substance use that is common in news reports about illegal drugs. Canadian and American newspapers, magazines and radio programs in the past several years have featured ayahuasca in stories that focus on the spiritual and health benefits, with few misrepresentations or exaggerations of adverse consequences or harms (Creedon, 2001; Hill, 2001; Jiménez, 2001; Laucius, 2005; McKinnon & Cler-Cunningham, 2007; Meech, 2009; Montgomery, 2001; Palmer, 2004; Piccalo, 2008; Posner, 2006; Salak, 2006; Stuart, 2006; Warren, 2010). The power of the Internet in shaping early 21st century public discourses is certainly playing a significant role in public perceptions about ayahuasca, where more often than not the brew is represented as a spiritual medicine to be respected, rather than a dangerous "drug" to be feared. In this respect, it is difficult or even impossible for governments, police or other authorities—whose interests might be served by

<sup>&</sup>lt;sup>136</sup> Hansen-Trip, N. (2001, April 11). [E-mail to Carole Bouchard]. Health Canada Access to Information documents, p. 1.

<sup>&</sup>lt;sup>137</sup> Of course, not all media coverage on the sociological phenomenon of ayahuasca drinking is positive. The misreporting of the October 2001 death of Jane Maiangowi from nicotine overdose as an ayahuasca fatality (Dubé, 2003a; 2003b; Erskine, 2003), discussed above, is one story that directly affected the Céu do Montreal case. More recently, an article in the Canadian national magazine *Maclean's* is a salient example of a poorly researched, gonzojournalism treatment of ayahuasca's uptake in this country (Richler, 2010).

dissemination of inaccurate or deprecatory representations of the brew, as they have been countless times in the past for other illegal drugs—to challenge the size and scope of information easily available to both journalists and the public. The diversity of thought and expression about the brew and its effects afforded by the use of the Internet has arguably had considerable influence on the perceived nature and proximity of ayahuasca as social and policy issue.

Health Canada's definition of ayahuasca as a policy problem has been shaped by the broader discursive context of the drug war paradigm. However, with respect to the Céu do Montreal congregation's status as a perceived problem population, the Santo Daime's syncretic Christian origins and legitimization by the Brazilian government may have mitigated the usual antipathy accorded illegal drug users by Canadian authorities. While ayahuasca drinkers generally are an example of a subaltern counterpublic, the affiliation of the Santo Daime with the dominant religious heritage of the West has provided its ritual practices a measure of respectability that other kinds (such as more overtly indigenous Amazonian cross-cultural vegetalismo) might not expect to receive. With respect to the proximity of ayahuasca drinking as a policy issue, it appears Health Canada did not immediately perceive it as much more than a matter of accommodating (or not) the rights claimed by a handful of members of an eccentric Brazilian cult. Yet, the brew's erstwhile obscurity has been steadily fading as increased academic research, media attention, and discursive interactions on the Internet are increasing public awareness about the brew and its effects. How the government should respond to other increasingly common types of ayahuasca drinking is a matter the Office of Controlled Substances did not consider in dealing with Céu do Montreal's Section 56 exemption request—although it did acknowledge that "the criteria for analysis of this particular request [to permit the ceremonial use of Daime tea] will set the course for future decisions with the same or a different substance" (Office of Controlled Substances, 2008, p. 11). 138 While keeping a narrow focus was an understandably expedient approach for the government to resolve its immediate concerns, it is sure to be only a deferral of further deliberations on the complexities of contemporary ayahuasca drinking in Canada.

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<sup>&</sup>lt;sup>138</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 385.

## 5.6 - Policy Analysis: Actors & Stakeholders

Another key aspect of policy analysis is consideration of who plays a role in making or influencing it. Although one can say that, *prima facie*, in liberal democratic states elected politicians make policy, critical policy analysis requires a broader exploration of which individuals and groups have input into problem definitions and proposed policy solutions. Authority is a critical factor in making legitimate claims of policy direction and development. Thus, cabinet members—senior members of the ruling party at a federal or provincial level, which make up the executive level of government—are rightly perceived as having considerably more influence as policy actors than the average citizen. Civil servants within government bureaucracies have substantial influence, as they advise ministers and make recommendations on policy options. Individuals and groups may also affect the policy process, by advocating, lobbying, and writing letters to parliamentary representatives or the editors of local newspapers. In addition, those with claims to knowledge expertise in a particular policy area, members of "epistemic communities," can strongly influence the process by defining, shaping and constraining the knowledge base for decisions. All of these players contend for influence in modern liberal democratic policy-making processes.

Colebatch (2002) posits two dimensions of policy that relate to actors and stakeholders: vertical and horizontal. These dimensions are complementary and operate simultaneously, and offer a useful and relatively simple schema for considering who makes policy. The vertical dimension of policy making is concerned with the upward and downward transmission of authorized decisions; in this dimension, the focus is on the authorities making decisions and the relevant policy activity is "decision support," execution and evaluation (Colebatch, 2002, p. 23). The vertical dimension also refers to the intra-organizational dynamics by which policy gets formulated and implemented. Policy development within government is a process that is both top-down (i.e., authority is exercised by cabinet ministers) and, to a lesser degree, bottom-up (i.e., input can come from higher and mid-level civil servants and government policy analysts). The bureaucratic structure of modern governments is complex, sometimes to the point of seeming impenetrable. Indeed, the pejorative sense of "bureaucracy" connotes an organizational behemoth that slowly and unimaginatively lumbers through policy development and political

crises (Hill, 1997). More descriptively, however, bureaucracies are centralized and hierarchical organizations that allow for rule-centred control over knowledge and decision making.

Within the vertical dimension of the policy decision on Daime tea, as the earlier discussion on Section 56 of the Controlled Drugs and Substances Act elaborates, the federal Minister of Health decides whether or not to grant a Section 56 exemption. 139 Supporting the minister in her decision making is the federal bureaucratic structure of the department of Health Canada, whose general mandate is to help Canadians maintain and improve their health by conducting and supporting scientific research, delivering education and awareness campaigns, and regulating such things as consumer goods, foods and drugs (Health Canada, 2011a). Within Health Canada, the Healthy Environments & Consumer Safety Branch promotes "healthy and safe living, working and recreational environments, and by reducing the harm caused by tobacco, alcohol, controlled substances, environmental contaminants, and unsafe consumer and industrial products" (Health Canada, 2011b). Within the Healthy Environments & Consumer Safety Branch, the Controlled Substances and Tobacco Directorate (which was reconfigured and renamed in 2009, combining what was previously the Drug Strategy and Controlled Substances Programme and Tobacco Control Programme) regulates the legal market for controlled substances and promotes initiatives that attempt to prevent or reduce the non-medical use of these substances. Finally, within the Controlled Substances and Tobacco Directorate, the Office of Controlled Substances manages policies and programs aimed at keeping drugs and controlled substances from being diverted for illegal use (Health Canada, 2009b). The Office of Controlled Substances' bailiwick includes oversight of the Section 56 exemption decision process, so this office and its staff have been most directly involved in the Céu do Montreal case. These respective Health Canada branches, offices and programmes, under the authority of the Minister of Health, constitute the vertical dimension of the Canadian Santo Daime policy decision.

In contrast to the vertical dimension, the horizontal dimension of policy focuses on policy communities, "groupings of government agencies, pressure groups, media people, and

<sup>&</sup>lt;sup>139</sup> According to the *CDSA* the Minister of Health has the exclusive power to grant Section 56 exemptions. However, observers of Canadian politics have noted that a gradual centralization of power has been occurring in Ottawa since the 1970s, whereby the Prime Minister's Office more than ever before wields considerable power over all federal government decision making (Wiseman, 2010).

individuals, including academics, who, for various reasons, have an interest in a particular policy field and attempt to influence it" (Pross, 1995). The horizontal dimension of policy emphasizes the structuring of action and relationships among participants in the policy process from different, often non-governmental, organizations; it focuses on the range of participants, the diversity of their agendas and their limited capacity to impose a solution by use of authorized decisions (Colebatch, 2002, p. 23). Some theories of policy community define it relatively exclusively, emphasizing elements of the vertical policy dimension, with some horizontal influence: a limited number of participants who frequently interact (with some consciously excluded), have resources to bargain with, share consensus on ideology and values, and hold a mutually beneficial power balance among themselves (Marsh, 1998, p. 14). By contrast, the notion of issue networks encompasses a larger field of participants and a broader spectrum of policy opinion (Fischer, 2003, pp. 31-32). Some issue network members may constitute interest groups, which, as Pal notes, "have been remarkably successful in promoting their policy agendas and mobilizing their resources" (2001, p. 239). With respect to the horizontal dimension of health policy in Canada, many levels of government are policy actors with an interest in influencing drug policy; these include federal, provincial, territorial, municipal and (more recently) aboriginal levels of government. Beyond this, non-governmental organizations, professional or citizen advocacy groups, and epistemic communities (such as research organizations or think-tanks) can have some influence in policy making.

For the Céu do Montreal Section 56 exemption case, according to what I could determine from the data I obtained, the Office of Controlled Substances' engagement with other policy actors in a horizontal dimension was relatively limited, especially in light of the breadth of other stakeholders who would likely have an interest in both the process and outcome of the decision. Most importantly, Health Canada staff met with Céu do Montreal leader Jessica Rochester several times by phone and in person, 140,141,142,143 including once with visiting Brazilian

Schopf, T. (2004, June 8). [Letter to Clayton Ruby]. Health Canada Access to Information documents, p. 115.
 Fuller, M. (2004, September 28). [E-mail to Cynthia Sunstrum, Health Canada]. Health Canada Access to Information documents, p. 135.

<sup>&</sup>lt;sup>142</sup> Kingdom, E. (2006, February 16). [E-mail to Cynthia Sunstrum, Health Canada]. Health Canada Access to Information documents, p. 206.

<sup>&</sup>lt;sup>143</sup> Kingdom, E. (2007, January 1). [E-mail to Jessica Rochester, President, Céu do Montreal]. Health Canada Access to Information documents, p. 363.

CEFLURIS leader Alex Polari de Alverga, <sup>144</sup> in order to gather information about medical considerations, storage, security and exportation of the Daime tea from Brazil. However, in many respects, the government's stakeholder engagement model represents the classic "iron triangle" of traditional government policy making, "closed systems of interest groups, legislative committees, and agency leaders" (Fischer, 2003, p. 32). For example, in its 2008 Issue Analysis Report, the Office of Controlled Substances details eight stakeholders beyond their office that were asked to provide opinions on the Céu do Montreal exemption request in a section titled "consultations": Health Canada Legal Services, Health Canada Drug Analysis Services, Royal Canadian Mounted Police, Canada Border Services Agency, the International Narcotics Control Board, Health Canada's Therapeutic Products Directorate, Health Canada's Marketed Health Products Directorate, and Health Canada's Health Products and Food Branch Inspectorate (Office of Controlled Substances, 2008, p. 12). <sup>145</sup>

One of the first things to note about these "consultations" (in the horizontal dimension of policy making) is that more than half of them are with other offices or directorates within Health Canada. Two others are agencies within the federal department Public Safety Canada (the RCMP and Canada Border Services Agency). In an earlier Issue Analysis Summary draft, the Department of Justice Canada and the United States Department of Justice were also listed as external consulted agencies (Office of Controlled Substance, 2006, p. 6), <sup>146</sup> so why these agencies were omitted from a more recently revised 2008 draft is unclear (especially as a separate Access to Information request I made to the Department of Justice Canada, as mentioned in chapter 2, yielded hundreds of pages of documents—although they were so heavily redacted as to be virtually useless for the present policy analysis). According to the Office of Controlled Substances, none of the federal government agencies expressed any concerns about issuing a Section 56 exemption to Céu do Montreal, although the Therapeutic Product Directorate was reported to have

<sup>&</sup>lt;sup>144</sup> Schopf, T. (2006, November 22). [E-mail to Jessica Rochester, President, Céu do Montreal]. Health Canada Access to Information documents, p. 299.

<sup>&</sup>lt;sup>145</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 386

<sup>&</sup>lt;sup>146</sup> Office of Controlled Substances. (2006, December 27). ). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act in the public interest for the religious use of Daime Tea"]. Health Canada Access to Information documents, pp. 340-360. See p. 345.

commented on the importance of ensuring that safety information relating to Daime tea (especially interactions with drugs) be communicated to people who will consume it. They also suggested that the safety information provided to persons ingesting Daime tea should be based on a thorough literature review. (Office of Controlled Substances, 2008, p. 12)

The only agency outside the Canadian federal government that was identified as being consulted in the most up-to-date Issue Analysis Report (Office of Controlled Substances, 2008, p. 12)<sup>147</sup>—the International Narcotics Control Board—suggested that there is no obligation to deem ayahuasca a controlled substance at all, according to its interpretation of the 1971 Convention on Psychotropic Substances.

The limited list of stakeholders consulted by the Office of Controlled Substances suggests that Health Canada did not attempt to learn much more about ayahuasca drinking or the health, social, and educational implications of its growing uptake in Canada than was absolutely necessary to fulfill its immediate drug control obligations. This is not surprising, given Health Canada's political mandate with respect to illegal drugs is to ensure compliance with the international drug control regime (and perhaps even more importantly, the expectations of the United States government on matters concerning "drugs of abuse"). It may also testify to the generally unimaginative nature of the bureaucratic process when civil servants consider with whom to consult on matters of policy interpretation, as well as limited time and fiscal resources to do so. Nevertheless, using the expanded policy analysis concept of an issue network, a much larger group of potential stakeholders with an interest in the Céu do Montreal Section 56 decision (and ayahuasca policy more generally) is apparent.

Provincial and Territorial (P/T) governments would seem to be crucial stakeholders with respect to the Céu do Montreal exemption request. According to the constitutional division of powers in Canada, P/Ts have a mandate for policies, programs and services for health and education, both of which are importantly affected by the potential legitimization of an entheogenic practice such as ayahuasca drinking. For example, while Santo Daime ceremonies are typically held in

<sup>&</sup>lt;sup>147</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 386

structures, buildings or rooms built especially for that purpose, if an elderly or gravely ill member of the congregation is immobile and confined to a hospital bed or senior care home, they may request that the Daime sacrament be provided in situ as complementary spiritual or palliative care (Schmidt, 2007, p. 176). However, in Canada such care facilities are typically operated by health authorities under the auspices of P/T health ministries, which presumably would have an interest in being made aware of such a potential contingency and its status as a protected religious freedom. The Federal/Provincial/Territorial Deputy Ministers of Health Council and the Federal/Provincial/Territorial Committee on Problematic Substance Use are two examples of inter-governmental tables where consultation or information sharing at the bureaucratic level could happen, but according the records I obtained, it has not. In particular, one would expect that both the provincial governments of Quebec and Ontario should have been notified of the exemption request and Health Canada's decision "in principle" to grant it, as several Santo Daime chapters are established and thriving in these provinces. 148 Furthermore, Quebec's 2007 public commission on reasonable accommodation of religious and cultural pluralism, the Consultation Commission on Accommodation Practices Related to Cultural Differences (Bouchard & Taylor, 2008), indicates that religious freedom matters at the heart of the Céu do Montreal Section 56 exemption request are also at the forefront of Quebecers' political and public concerns.

The public schooling and education mandate of P/T governments is another reason to acknowledge their importance as stakeholders in the horizontal policy dimension. Providing curricula and education programs for young people to learn about psychoactive substances is a fundamental part of most school-based health education, which is jointly overseen by school boards and provincial Ministries of Education. Although much drug "education" provided in schools is steeped in the "drugs as malevolent agents" and "drugs as pathogens" metaphors (discussed in chapter 4 above), and amounts to little more than fear-based, abstinence-oriented indoctrination (Beck, 1998; Blackman, 2004; Tupper, 2008a), Health Canada's "in principle" legitimization of sacramental ayahuasca drinking suggests that some serious revision to the conceptual foundations of this approach is warranted. Indeed, the concept of entheogenic

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<sup>&</sup>lt;sup>148</sup> It is possible such notification did happen; however, there is no indication of this—or even discussion or consideration of it—anywhere in the Health Canada Access to Information records I obtained.

education I outlined in earlier research (Tupper, 2002a), and elaborate further in the next chapter, provides sound theoretical grounds for a significant shift in how parents, educators and governments conceive of education, knowledge and learning in relation to psychoactive substances. Such a broadened perspective on education would seem to require engagement by provincial governments on federal ayahuasca policy decisions.

In addition to P/Ts, aboriginal (i.e., First Nations, Inuit and Métis) governments and leaders in Canada would presumably have a strong interest in the spiritual use of a decoction that, although not indigenous to Canada, has a long history of use as a sacred traditional medicine among Amazonian indigenous and *mestizo* cultures. Furthermore, given the anecdotal and preliminary scientific research evidence about the therapeutic benefits of ayahuasca, especially as a complement to addiction treatment (Labate, Santos, Anderson, Mercante & Barbosa, 2010; McKenna, 2004; Winkelman, 2001), aboriginal populations in Canada—still troubled in spiritual, health and socio-economic domains by the legacies of colonialism and residential schools (Health Canada, 2009a; Millroy, 1999)—would seem to be strong candidates for engagement on questions relating to ayahuasca or other traditional entheogenic substance use policy decisions. A respectful and prudent approach to exploring these avenues and realizing possible benefits, however, would require that this happen at the behest and on the terms of aboriginal peoples, communities and governments themselves (Turner, 2006), as per protocols established in new governance agreements such as the 2005 Transformative Change Accord between the Government of Canada, the Government of British Columbia and the leaders of First Nations of British Columbia.

At the local level, city or municipal councils are another level of government that might also have an interest some aspects of the approval of an exemption allowing a religious community to drink ayahuasca sacramentally, as there are potential zoning or by-law implications for the construction of church buildings or other permanent places of worship. Indeed, just such a matter came up in September, 2009, in Arroyo Hondo, New Mexico, where the local UDV church presented a development application to the Santa Fe County land-use department to secure the necessary permits to build a temple and related facilities (Simon, 2009; Sharpe, 2009). Furthermore, municipal governments in Canada are increasingly burdened with negative effects

of questionable socio-economic and drug policies of higher levels of government (including, for example, homelessness, addiction and organized crime activity); it was for this reason that the City of Vancouver, in a municipal policy document on preventing harms from psychoactive substance use, explicitly identified ceremonial ayahuasca drinking and its potential therapeutic benefits as an innovative community-centred approach to prevention (MacPherson, Mulla, Richardson & Beer, 2005, p. 46).

Another important group of people who merit inclusion as part of an expanded set of stakeholders within a broader issue network on ayahuasca policy are those who regularly drink the brew in contexts and with beliefs and practices different from the Santo Daime. Specifically, this would include neo-ayahuasquero practitioners who lead ceremonies in cross-cultural vegetalismo or other hybrid practices, and regular ceremony participants pursuing spiritual fulfillment, physical or psychological healing, or esoteric metaphysical or cognitive insights. Although the Céu do Montreal Section 56 exemption request was submitted with the express intent of protecting the religious freedoms of only members of that congregation, it initiated a federal policy process that has far-reaching ramifications for other Canadian ayahuasca drinkers and their equivalent rights and freedoms. To be fair, Health Canada was not likely to have been aware in the spring of 2001, when Céu do Montreal submitted its exemption request, that Canadians were enthusiastic participants in an international trend of inviting *ayahuasqueros* from Amazonian regions to visit their home communities (especially in the Western provinces, where the Santo Daime does not yet have a presence) to conduct ayahuasca ceremonies for friends, family members and acquaintances. 149 Indeed, the transnational sociological phenomenon of ayahuasca drinking in contexts other than the Brazilian churches has been growing not just due to "ayahuasca tourism" in the Amazon (Davidov, 2010; Dobkin de Rios, 1994; Holman, 2011; Winkelman, 2005), but also because of increased mobility of itinerant ayahuasqueros able and willing to visit various regions and countries beyond the Amazon to meet a growing demand for ayahuasca rituals (Tupper, 2009a—see Appendix). Equally importantly, there is a small but growing cadre of Canadians who are undertaking rigorous apprenticeships with indigenous or mestizo ayahuasqueros based in countries such as Peru

<sup>&</sup>lt;sup>149</sup> As discussed above, Health Canada soon became well aware of at least one superficially similar example, involving the death of Jane Maiangowi and the consequent legal troubles of Ecuadorian *curandero* Juan Uyunkar and his *natem* and tobacco preparations on the Wikwemikong reserve in Northern Ontario.

(Meech, 2009). These practitioners have established dedicated communities of regular drinkers in various provinces, and provide opportunities for new drinkers introduced by informal word-of-mouth connection. The activities in which such Canadian neo-*ayahuasqueros* are engaged are distinct from the Santo Daime's religious practices in some respects, but they have important similarities and overlaps with respect to policy, making them and their "congregations" important stakeholders in the broader ayahuasca policy issue network.

Finally, another important category of policy stakeholder is what Haas (1992) terms an "epistemic community," or "a network of professionals with recognized expertise and competence in particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue area" (Haas, 1992, p. 3). Epistemic communities are special types of actors in the contemporary policy environment, as governments increasingly emphasize "evidence based" policy, and rely on external partners for the generation and interpretation of evidence. For example, the influence of think-tanks in critiquing and creating policy has risen in the past few decades and may be expected to continue as global knowledge networks capitalize on rapid information transfer through the Internet (Stone, 2001; Weaver, 1989). As Fischer puts it, the "increasing complexity of public issues and more unpredictable policymaking environments have compelled decision-makers to more and more turn to—even participate in—epistemic communities to resolve policy dilemmas" (2003, p. 33). In the judicial proceedings on ceremonial use of ayahuasca in countries such as Holland and the United States, expert opinions from researchers and academics within the medical and drug policy epistemic communities played an important role in jurisprudential decisions to protect religious freedom.

In the case of Health Canada's policy decision on Céu do Montreal's Section 56 exemption request, however, there is little indication that much expertise was sought beyond the limited research capacity of the Office of Controlled Substances and other Health Canada sections. The meager list of (mostly other Health Canada and other federal government) agencies consulted by the Office of Controlled Substances suggests that its scant review of the academic literature—amounting in total to 22 scholarly articles and books, supplemented by a few legal briefing documents from Dutch and U.S. ayahuasca court cases (Office of Controlled Substances, 2008,

pp. 19-21)<sup>150</sup>—was deemed sufficient for its decision making on the Céu do Montreal exemption matter. Presumably, Health Canada decision makers were reassured by the findings of the Brazilian CONFEN multidisciplinary working group on the safety of the Santo Daime's ayahuasca drinking practices. However, in the next section, I will discuss how Health Canada's reluctance to engage (or even inability to recognize) broader epistemic communities can be interpreted to reveal questionably ethnocentric assumptions about the nature of knowledge in typical modern technocratic forms of governance.

## 5.7 – Policy Analysis: Knowledge & Evidence

Another key aspect of policy analysis involves exploring the interrelationship between policy decision making and knowledge—or, more precisely for modern forms of governance, academic and, especially, scientific knowledge. However, it must be noted that the relationship between knowledge and policy is not simply a unidirectional one. Policy can often have a strong influence—both explicitly and implicitly—on the creation of knowledge, especially the authoritative knowledge production that happens in the academy. This is especially pertinent with respect to knowledge about illegal psychoactive substances, as the implicit norms of the drug war paradigm can, and often does, constrain what questions are conceived, asked and funded in universities. Danish criminologist Jorgen Jepsen perceptively notes that "the war on drugs is also a war against alternative definitions and descriptions of reality" (qtd. in Goldberg, 1999, p. 4). The United States, which funds a large part of the global drug use prevention research, is particularly tied to drug-war ideology in its research direction; as Laniel observes in a UNESCO discussion paper, "U.S. drug policy and politics are a very strong—perhaps the strongest—determinant of what kind of research is done in America" (1999, para. 4). A number of health and drug policy researchers have critically commented on political influences in both illegal drug research itself (Grob, 2000; Hwang, 2007; Nusbaumer & Reiling, 2007; Pearson, 2004; Thoumi, 2002), and in knowledge transfer through institutions such as libraries (Reinarman, 2005b). Such constraints are not limited to the health sciences; for example,

<sup>&</sup>lt;sup>150</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See pp. 393-395

Hillman (2008) reports a disconcerting bowdlerization of unorthodox knowledge about psychoactive substance use in classical studies.

The refusal to adhere to drug war orthodoxy in some research fields can mean professional isolation, less likelihood of publication in conservative peer-reviewed journals, and little chance of securing research grants from major federal funding bodies. The influence that policy can have on knowledge production and dissemination is an important factor that may be overlooked in discussions about evidence. It is not simply that some evidence is privileged for its alignment with political ends, but that the policy environment itself constrains what research questions are conceived, asked, and legitimated through funding. There is perhaps no better example of this phenomenon than in the field of psychedelic research, where for over twenty years (between the early 1970s and the 1990s) virtually all prospects for academic studies that involved clinical trials with humans subjects were closed, and most discussion on the topic avoided as taboo or dismissed as unprofessional. For example, Grinspoon and Bakalar (1983) reported selfcensorship by some academics in their research on professional opinions about the potential value of psychedelics:

One of the people we asked to write for this book replied that after long thought he had to decline, because he feared the effect on his ability to support himself and his family if he said what he really thought about psychedelic drugs (Grinspoon & Bakalar, 1983, p. 253)

### Likewise, Jonathan Ott observed that

investigating positive applications of illicit entheogenic drugs is considered to be the "kiss of death" to a conventional scientific career. Our scientific culture has decided it will "just say no" to information which can be derived from basic research on entheogenic substances (1996, p. 28)

Although academic freedom is understood to be a pillar of the modern Western university system and the important role it plays in knowledge production for liberal democratic societies, research and knowledge about illegal psychoactive substances, and especially psychedelics, has been a notable exception in the late 20<sup>th</sup> century. This phenomenon must be taken into account when considering the knowledge base that policy makers, such as Health Canada's Office of Controlled Substances, has available in considering risks and benefits of ayahuasca drinking.

Given the overlaps between language, knowledge, and power elucidated by discursive-minded philosophers such as Michel Foucault (1980, pp. 78-108), it is clear that knowledge has been a perennial concern for leaders and decision makers from the earliest forms of human political organization. However, as I alluded to in the history of the modern drug war paradigm sketched in chapter 3, the natural philosopher and statesman Francis Bacon was among the first advocates for a systematized approach to knowledge generation, collection, and collation to serve the interests of the nascent modern nation-state (Shapin, 1996). From the latter part of the 17<sup>th</sup> century in England, the Baconian project began to be realized through iterative experimental manipulations of the material world, careful empirical observation and measurement, and cautious inductive reasoning. Such investigational methods were undertaken at first by amateur virtuosi and natural philosophers—under the influence of novel and stimulating xanthinated beverages (Cowan, 2005), perhaps not so incidentally—but were soon sponsored by state charters for organizations such as the Royal Society of London for the Improvement of Natural Knowledge (founded in 1660, and the model for similar organizations subsequently established in other European jurisdictions). With the expanded economic, military and political power realized through the application of science to technological and industrial innovation in the 19<sup>th</sup> and 20th centuries, modern bureaucratic state control systems (and socio-economic power structures of the contemporary academy) became more firmly entrenched in the epistemic hegemony of neopositivist "science" and scientism. 151 Indeed, a foundational element of the common narrative of modern progress is that an imminent utopian human future will be realized through accumulating scientific discoveries and their technological applications, driven by a neoliberal, free-market capitalist economic system (Wallerstein, 1991). It is in this socio-historical context that the knowledge base for policy decisions about ayahuasca—including (but not

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<sup>&</sup>lt;sup>151</sup> The English word "science" derives etymologically from the Latin *scientia* (meaning "knowledge"), and retained a broad meaning until well into the Enlightenment; in the 19<sup>th</sup> century, however, its primary meaning became increasingly restricted to its current predominant sense of the systematized and professionalized study of nature through experiment, observation, and measurement (Raman, 2008, pp. 596-597). From a sociological perspective, its dominant epistemological status today is, in part, "the result of the so-called divorce between science and philosophy [in 19<sup>th</sup> century university faculties], and the reification of modern science as a separate method, a different theory of knowledge from philosophy, the only route (according to the scientists) to truth. Science, as it was now being defined, was more than merely another form of knowledge. It was the anti-philosophy, because philosophy was speculation and hence had no claims to be truth" (Wallerstein, 2004, pp. 66-67).

limited to) the Céu do Montreal Section 56 exemption request to Health Canada—must be situated for critical analysis and explanation.

A telling phrase at the outset of its 2008 Issue Analysis Summary illustrates Health Canada's implicit epistemic commitment relating to its policy-making knowledge base on ayahuasca: "the purpose of this . . . summary is to examine what is currently known about the pharmacology, dependence potential, and abuse potential associated with Daime tea . . . with a view to determining . . . health and safety risks" (Office of Controlled Substances, 2008, p. 1, italics added). 152 From a discursive policy analytical perspective, the italicized noun phrase—a passive construction that syntactically occludes the knower's agency and identity—implies that the activity of "knowing" about ayahuasca, how and by whom, is so obvious as to be unimportant. In some respects, this discursive feature and what it reveals is unremarkable: it confirms that Health Canada holds typical a priori assumptions that "what is known" about ayahuasca, and is of primary relevance to a risk analysis (the essence of its deliberations), is available in scientific and biomedical books and articles. Thus, in order to discover "what is known" about ayahuasca, a literature review of academic publications, supplemented by a few policy documents from other jurisdictions, suffices for the generation of what is commonly referred to as the "evidence base" for decision making in contemporary policy-making discourses (Marston & Watts, 2003). However, as I discuss below, in light of a theory of entheogenic education and the potential cognitive benefits of ayahuasca drinking, such assumptions about knowledge and evidence may not be as epistemically righteous as modern epistemological and drug war paradigm conventions dictate.

How Health Canada constructs and presents the "evidence" about Daime tea in its Issue Analysis Summary (Office of Controlled Substances, 2008), <sup>153</sup> upon which the Céu do Montreal exemption decision is based, illustrates the government's firm conceptual entrenchment in the drug war paradigm. Even though the outcome of the decision was favorable for the applicants,

<sup>&</sup>lt;sup>152</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 375.

<sup>&</sup>lt;sup>153</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395.

the grounding in this questionable conceptual foundation provides a compelling reason for criticism of the basis of its analysis. First, Health Canada's overtly prioritized interest in "dependence potential" and "abuse potential" of Daime tea in its issue analysis demonstrates an inability to conceive of psychoactive substances outside the schema of modern stereotypes of non-drugs, medicines, and drugs, despite the lack of any scientific or other coherent, defensible foundations for these contingent socially-constructed categories (see Table 1 in chapter 4 above). By virtue of the presence of trace amounts of DMT and harmala alkaloids in the brew, ayahuasca is classified as a "drug"—invoking all of that word's common discursive associations, including the metaphorical frames of "malevolent agent" and "pathogen"—and thereby popularly and politically indistinguishable from more prototypical substances in that category, such as cannabis, coca or opium. The implicit a priori assumptions this reflects are that the brew is dangerous, noxious and suspicious, rather than healing, tonic and beneficent, as regular ayahuasca drinkers attest almost universally (Metzner, 1999; Shanon, 2002; Schmidt, 2007). In this respect, the presentation of "what is known" about ayahuasca in Health Canada's Issue Analysis Summary reflects as much the specious assumptions and fallacious prejudices of the drug war paradigm as it does scientific knowledge about the sacramental consumption of Daime tea.

An unavoidable issue relating to knowledge and evidence about ayahuasca for contemporary policy-making purposes is the question of the limitations of traditional Western textually-mediated approaches to religious, legal, and academic (both scientific and humanistic) inquiry and authority, insofar as they can (or cannot) provide ways to understand the brew and its effects. Benny Shanon has suggested that "possessing firsthand familiarity with the ayahuasca experience is . . . crucial for the academic investigator" (Shanon, 2010, p. 264). Stanislav Grof makes a similar point in his observation:

I tried personally all the psychedelic substances we worked with before I gave them to others. That is the only way; there is no other possibility. One cannot learn the effect of psychedelics from reading books, no matter how sophisticated they appear to be (Grof, 1998, p. 2)

However, my contention is that such assertions are equally applicable to the decision maker tasked with making an informed policy judgment about ayahuasca; to make a decision about the

brew without having personally experienced its cognitive, emotional and physiological effects is to do so in relative ignorance. This may be best illustrated by analogy: consider being tasked with making important foreign policy decisions about a country very different from your own, without ever having visited there. You can memorize the economic and demographic statistics, read about the cultural traditions and mores, and study maps of the political and geographic terrain—and, undoubtedly, amass an impressive amount of "knowledge" about the country upon which to base some judgments. However, such mediated information can never approximate the direct and tacit knowledge to be gained by going there and having first-hand experience. It is such knowledge that I contend is essential for making a well-informed and optimal policy decision about this unique substance. At the very least, ayahuasca drinkers should be recognized as a special kind of epistemic community, whose input should be sought, heeded and incorporated in decision-making processes about the brew. To be charitable, Health Canada may have accorded such status to Céu do Montreal, by engaging them in meetings during the process of deciding whether to grant their Section 56 exemption, although it is unclear how much influence other factors (such as the religious freedom trends in the jurisprudential decisions in other countries) had on this uncharacteristic openness to the ideas and opinions of people who use controlled substances for non-medical purposes.

Regardless, no matter how many scientific papers on ayahuasca ethnobotany and pharmacology, ethnographic studies of particular ritual contexts of drinking, or prosaically eloquent descriptions of others' ayahuasca experiences one reads, such derivative data cannot offer the kind of understanding about the brew that is only possible through drinking it. As Santo Daime leader Padrinho Sebastião asserted, "no [government] commission is going to discover a secret only by looking at the bottle [of ayahuasca]; they have to drink, partake, to know for themselves" (qtd. in Polari de Alverga, 1999, p. 31). In Brazil, some CONFEN committee members who were tasked with researching ayahuasca drinking by groups such as the Santo Daime and UDV in the 1980s participated fully in ayahuasca in ceremonies during the course of their investigation (Silva Sá, 2010, pp. 171-174). In 2008, Brazilian music legend and then Minister of Culture, Gilberto Gil, visited the Alto Santo (another line of Santo Daime) community in the state of Acre and reportedly participated in a ritual, commenting afterward that he hoped to see ayahuasca

recognized as a cultural legacy of the Brazilian nation (Dawson, 2010, p. xv). Notwithstanding these actions by Brazilian government representatives, there is no evidence that Health Canada officials likewise sought out direct, first-hand experience with ayahuasca.

The idea that policy makers ought to have first-hand experience with ayahuasca in order to make fully informed decisions speaks directly to the limitations of text-based, scientific knowledge and its hegemonic epistemic status in modern Western forms of governance. For several hundred years, the material benefits that scientific knowledge has provided to liberal democratic (and, implicitly, capitalist economic) systems of political decision making have correspondingly eroded public and professional perceptions about alternative ways of knowing (Davis, 2009; Vasquez, 1998). While the impetus for early modern Euroamerican natural philosophers to find secure forms of knowledge that avoided the fraught terrain of monotheistic religious dogma is understandable, the consequent exclusion of other kinds of practices—such as the entheogenic learning afforded through ayahuasca drinking—as valid and valuable knowledge-generating activities has ultimately been to the detriment of humanity. As part of the colonialist denigration of traditional indigenous belief systems, Western authorities vigorously and often brutally suppressed cultural activities that constitute a different kind of empiricism (Smith, 1999), including ways of experiencing and learning about the immaterial cosmos through the mediation of powerful kinds of cognitive tools in the form of certain psychoactive substances. Yet, discourses counter to the dominant Western epistemic frame also emerged spontaneously in the 1950s and 1960s, when avant garde artists, intellectuals and visionaries saw potential benefits to humanity from the circumspect use of these or analogous tools. This is essentially what Aldous Huxley held as a firm belief in his final years of life (Huxley, 1962; Horowitz & Palmer, 1999), what Albert Hofmann hoped would be realized of his "sorgenkind," or problem child, LSD (1980; see also Littlefield, 2002), what Timothy Leary (1968) perhaps over-exuberantly and incautiously promulgated, and what many others of their generation optimistically envisioned before the expanding scope and power of the drug war paradigm marginalized or extinguished such views. In the next chapter, I will discuss how the concept of entheogenic education provides an alternative frame for considering the value of substances such as ayahuasca, drawing on both

<sup>&</sup>lt;sup>154</sup> In June 2008, the Peruvian National Institute of Culture declared the traditional knowledge and uses of ayahuasca to be part of the national cultural heritage of Peru, warranting protection to ensure their cultural continuity (Beyer, 2009, p. 375).

traditional indigenous ideas about plant teachers and more modern claims about the mindexpanding value of psychedelics.

# 5.8 – Policy Analysis: Conclusion

While the ultimate decision "in principle" (Pieterson, 2006)<sup>155</sup> to recommend granting a Section 56 exemption is consistent with protecting the religious freedom of Céu do Montreal members, there are further grounds to critique the final decision of the Office of Controlled Substances that can be inferred from the phrasing of the decision options and selected strategy. In its presentation of its selected strategy (from among the options of whether or not to grant a Section 56 exemption to Céu do Montreal), the Office of Controlled Substances claims:

It would appear that Céu do Montréal has demonstrated that the sacramental drinking of Daime tea is central to the practice of the Santo Daime religion and that its members should have the right to consume Daime tea because of their right to religious freedom as provided under the Charter of Rights and Freedoms. <sup>156</sup>

From a critical discourse analysis perspective, the opening phrase, "it would appear that," is significant, inasmuch as even in the final decision the government is unwilling to concede unequivocally the *reality* of the Céu do Montreal's claim, but rather only its appearance.

However, more revealing is the detail of the assessment of options (and what may be inferred from the redacted text). While four options were presented, two—"exclude Daime tea preparations [i.e., ayahuasca] from Schedule III to the CDSA" and "create new regulations authorizing activities with Daime tea" (p. 10)<sup>157</sup>—were "eliminated from further consideration" (p. 10), as the first was considered too lenient and the latter to bureaucratically cumbersome (p. 10). Of the remaining two, the option to refuse the exemption was advised against, due to concerns that its selection was "likely to be perceived as discriminatory as [it] interferes with the

<sup>156</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 389.

<sup>&</sup>lt;sup>155</sup> Pieterson, B. (2006, July 31). [Letter to Jessica Rochester, President, Céu do Montreal]. Health Canada Access to Information documents, pp. 276-277.

<sup>157</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 384.

ability of a specific group to freely exercise their right to religious freedom" (p. 11) and that "a decision to refuse may result in a legal challenge . . . [remaining text redacted]" (p. 11). The first point is significant inasmuch as it suggests there would merely be a perception of discrimination and human rights violations, rather than an actuality (not dissimilar to the "appearance" reference above). However, the significance of the redacted text (removed under Section 23 of the *Access to Information Act*, covering solicitor-client privilege) following the mention of a potential legal challenge is that it must provide a legal opinion about the likely results of a Charter challenge.

While my data does not allow for a definitive determination, one may reasonably assume from the jurisprudential decisions in favour of religious freedom in every jurisdiction where ayahuasca cases been fought (including the Netherlands, Spain, Italy, France and New Mexico, Oregon and the United States Supreme Court), that the advice to the Office of Controlled Substances was that they would almost certainly lose a Charter challenge if one were to be launched by Céu do Montreal. Even though Health Canada recognized that "the decision to grant an exemption from the application of the CDSA for religious purposes sets a precedent [for a broadened use of Section 56 in the public interest]," (Office of Controlled Substances, 2008, p. 11)<sup>158</sup> it must also have been acutely aware that its ability to control the scope of such unorthodox behaviours as ayahuasca drinking is far greater if permission-granting remains within the tight statutory limits established by the Controlled Drugs and Substances Act. The loss of a Charter challenge on religious grounds, by contrast, could conceivably allow any person who desires to use any controlled substance to claim that their use is religious. From Health Canada's perspective, and its presumable interests in adhering as closely as possible to the international drug control regime, the granting of a public interest exemption to Céu do Montreal—even though permitting any kind of non-medical or non-scientific use of an illegal psychoactive substance is anathema to the logic of the drug war paradigm—is a far more palatable option than the foreseeable alternative if it refused the exemption but lost a future Charter challenge. Thus, Health Canada's approval in principle to grant a Section 56 exemption to Céu do Montreal, while apparently contrary to the drug war paradigm, is rather a shrewd proactive manoeuvre to preserve it.

<sup>&</sup>lt;sup>158</sup> Office of Controlled Substances. (2008, February). [Draft Issue Analysis Summary—"Exemption under Section 56 of the Controlled Drugs and Substances Act (Public Interest) Regarding the Use of Daime Tea for Religious Purposes"]. Health Canada Access to Information documents, pp. 375-395. See p. 385.

In summary, the questions and challenges Health Canada faced in deliberating on Céu do Montreal's request for a Section 56 exemption in the public interest were not dissimilar to those addressed by courts in other jurisdictions, including the Netherlands and the United States. As a liberal democratic state, Canada is committed to upholding competing principles of criminal justice, public health and human rights. However, with respect to the centrality of the Daime tea sacrament to the Santo Daime's religious practices, these principles are in a particularly difficult kind of tension. As I demonstrated through the discussion in chapters 3 and 4, the history of the international drug control regime and what it reveals about the conceptual unsoundness of the drug war paradigm illustrates how modern governments are challenged to make a well-informed and sympathetic assessment of entheogenic practices such as avahuasca drinking. With this background context, I have detailed the process and product of Health Canada's decision making on the Céu do Montreal request, and provided a number of criticisms of how ayahuasca was constructed as a policy problem, what stakeholders and policy actors were involved in the process, and the knowledge and evidence that was used to make the decision. In a number of ways, this case demonstrates the limitations of governments operating in a policy context shaped in significant part by the drug war paradigm. In the next chapter, I will explore another way to understand ayahuasca drinking—through a lens of entheogenic education, which accords with traditional Amazonian indigenous and mestizo discourses about the brew as a plant teacher and which provides another kind of evidential framework for decision-making.

# Chapter 6 – Conclusion: Entheogenic Education—Ayahuasca as a Plant Teacher

The challenge that governments face in responding to the global expansion of ayahuasca drinking—through its sacramental uses by groups such as the Santo Daime, as well as less overtly religious, indigenous-style *vegetalismo* or hybrid healing rituals—is that of developing public policies that minimize potential harms and maximize potential benefits from such entheogenic practices (Tupper, 2008c). However, the legal context imposed through the international drug control regime means that many countries, including Canada, reflexively treat ayahuasca as a nefarious preparation of a controlled substance (DMT), with no accepted medical or other legitimate uses. While the policy conundrum presented by a bona fide religious practice of ayahuasca drinking was resolved by Health Canada through its approving a Section 56 exemption in the public interest "in principle," this was a remarkably counter-intuitive decision given the government's generally steadfast commitment to the drug war paradigm and proscription of any unauthorized (i.e., non-medical/non-scientific) uses of controlled substances. Yet, even though it decided in favour of religious freedom, Health Canada did not demonstrate any movement beyond a Eurocentric and neo-colonial epistemological frame of reference for its drug policy decision making. However, it is just such ethnocentric and culturally imperialistic attitudes of modern Western states—evident not only in drug policies, but also, as I will argue below, in the modern institution of schooling—that have led to a debilitating disenchantment of the modern world and contributed to the global ecological predicament of the 21st century.

Ayahuasca is one of numerous psychoactive plants that indigenous peoples in the Amazon and in other parts of the world have traditionally esteemed as plant teachers, from which humans may learn about themselves, their world and the cosmos (Luna, 1984a; Shanon, 2010; Tupper, 2002a). However, dominant Eurocentric assumptions about knowledge and learning in modern

<sup>&</sup>lt;sup>159</sup> Santo Daime's founder, Mestre Irineu, in his early formative experiences reportedly "learned that the *daime*, besides being a visionary drink, also had special healing powers and that it contained *um professor*, a teacher, capable of revealing secrets about the spiritual world" (Schmidt, 2007, p. 52). Polari de Alverga matter-of-factly asserts that visionary plants, such as ayahuasca, "which the [Santo Daime] hymn calls 'the teacher of all teachers,' have . . . much to teach us" (1999, p. 140). Likewise, Pantoja and Conceição report that "everyone [in an Amazonian]

Western public and political discourses render the concept of plant teacher largely unintelligible. The proposition that a person might learn anything by ingesting a psychoactive plant (especially one that contains an illegal drug) is, from a modern educational frame of reference, a prima facie preposterous idea, although few would likely readily admit to harboring latent politically incorrect sentiments that indigenous knowledge, healing and spiritual practices are inferior and wrong. Nevertheless, for Western authorities to respect the possibility that the indigenous "plant teachers" metaphor may have some foundation, they would at least have to admit that a priori claims to the contrary have no empirical validity, and would at best need actually to drink ayahuasca to discover what they learn about themselves and the brew. Health Canada's ayahuasca policy decision-making process, which involved cursory academic research and a risk analysis based on studies conducted from within Western epistemological and biomedical paradigms, did not demonstrate any openness to admitting alternative knowledge paradigms. By contrast, as discussed in the previous chapter, the Brazilian government took a very different approach to its investigation of ayahuasca, through its commissioning of a working group in the 1980s that not only looked into the scientific and ethnographic literature on the brew (MacRae, 2010), but members of which also participated in ayahuasca ceremonies and acquired first-hand experience of its effects (Polari de Alverga, 1999; Silva Sá, 2010). Unlike the ethnocentric policy-making process of Health Canada, the Brazilian government allowed for the experiential learning from the traditional indigenous plant teacher ayahuasca to be considered as important evidence in its deliberations.

This chapter develops ideas about entheogenic education in order to provide a richer theoretical context for ayahuasca's importance as a public policy issue in the early 21st century and to support the claim that experience with ayahuasca is important for decision making about the brew. I begin with a brief overview of learning or educational experiences attributed to entheogens and psychedelics in historical and more modern contexts. Next, I consider how the institutional artifact of the public school system tends to systemically preclude opportunities for experiencing emotions of wonder and awe, affective precursors to or corollaries of a sense of meaning and purpose in life and experiences without which disenchantment and dislocation are

community of rubber tappers in the Juruã Valley of the state of Acre] acknowledges that the brew is 'a teacher'" (2010, p. 36).

effected or exacerbated. Following Kieran Egan's (1997) critique of the confused aims of contemporary schooling, I explore his alternative educational model, which regards facility with various cognitive tools and the development of corresponding domains of understanding as primary goals. Departing from Egan, however, I suggest that conceiving of certain kinds of psychoactive substances as powerful cognitive tools—ancient technologies for altering consciousness or inducing non-ordinary mind-body states (Roberts, 2006)—provides a helpful way to understand and assess some of the potential benefits and risks of these substances. With this heuristic move, a range of considerations about ayahuasca and other entheogens opens up, such as the proto-harm reduction value of ritual as an important traditional adjunct to entheogenic practices, and its function to reduce potential risks and optimize positive outcomes. Finally, I conclude with some thoughts on the value of entheogenic education, and the possible role that cognitive tools such as ayahuasca might serve to foster a crucial transformation in world view, a possible "missing, magical piece of the puzzle" (Alexander, 2008, p. 392) needed to catalyze an ecological orientation to the contemporary global public interest. I propose that this may be what a growing number of critics argue is essential for overcoming the social, economic, political and ecological injustices wrought by neo-liberal free-market capitalism, which threaten modern civilization and many of the earth's ecosystems with imminent collapse. If ayahuasca does indeed have such potential value, or even merely holds the promise of it, then policy decisions relating to the brew ought to take this into account and alternative conceptions of the public interest with respect to drug policy ought to be considered.

Articulating a framework for entheogenic education involves interdisciplinary theorizing—from perspectives such as psychology, education and philosophy—about how ingesting some kinds of psychoactive plants or substances in certain contexts may educe valuable forms of experiential learning. The theory draws most directly from ethnographic and historic reports of cultural practices and traditional indigenous knowledge involving psychoactive plants or preparations. These include Mesoamerican and traditional Mazatec uses of psilocybin mushrooms (Estrada, 1981; Wasson, 1980), Huichol and Native American uses of peyote (Schaefer, 1996; Smith & Snake, 1996), and various Amazonian indigenous and *mestizo* peoples' uses of ayahuasca, all of which managed to survive into the 20<sup>th</sup> century despite repression by Euroamerican colonial religious and government authorities. Other examples include more historically remote practices

such as the Indo-Aryan use of a plant known as *soma* (Wasson, 1968; Eliade, 1978) the ancient Greek mystery religions that incorporated the use of psychoactive sacraments (Wasson, Hofmann & Ruck, 1978), and the Semitic origin myth of the tree of knowledge, eating the fruit of which reportedly generated newfound self-consciousness and God-like knowledge. <sup>160</sup>

Claims of mind expansion, cognitive enhancement and creative insight among modern psychedelics enthusiasts further support the concept of entheogenic education (even if explicitly secular or non-spiritual uses make the "entheogenic" label somewhat less appropriate). Perhaps most famously, Timothy Leary advocated the benefits of LSD and other psychedelics for mindexpansion and the democratization of mystical experience (Leary, 1968; see also Leary & Clark, 1963). However, Leary was not the only mid-20<sup>th</sup> century thinker enthusiastic about the prospect that psychedelics may reliably induce valuable mental, emotional or cognitive states. This was a significant theme in the academic work of many early psychedelic researchers and aficionados in the 1950s and 1960s, (Walsh and Grob, 2005; see also Dobkin de Rios & Janiger, 2003; Grof, 1980/1994; Harman, McKim, Mogar, Fadiman & Stolaroff, 1966; Masters and Huston, 1966; Horowitz & Palmer, 1999). 161 Canadian researchers investigating LSD's therapeutic potential in treating chronic alcohol dependence in the 1950s suggested that "the root of the therapeutic value of the LSD experience is its potential for producing self-acceptance" (Chwelos, Blewett, Smith & Hoffer, 1959, p. 589), and also—based on personal experience—that mental health care professionals could benefit from experiential learning through the use of psychedelics as part of their training (Osmond, 1967, p. 432).

More explicitly in the field of education, teacher education researcher Ignacio Götz argued in *The Psychedelic Teacher* (1972) that students would be better served by teachers who adopt a personal approach to knowing and learning that embraces mystical or "psychedelic" states of

<sup>&</sup>lt;sup>160</sup> In the book of Genesis, the serpent tempts Eve to taste the fruit of the tree of knowledge, suggesting that "in the day ye eat thereof, then your eyes shall be opened, and ye shall be as gods" (Genesis 3:5). I provided a more detailed account of various cross-cultural and historical descriptions of psychoactive substance use for educational purposes, or at least uses to which learning or edification have traditionally been attributed, in earlier work (Tupper, 2002a). <sup>161</sup> Carlos Castaneda (1968) achieved renown for writing about cognitive insights and other wisdom garnered from purported entheogenic learning under the tutelage of a Mexican indigenous healer, and suggested that a disciplined approach to psychoactive substance use could offer esoteric knowledge and cosmological understanding. However, Castaneda's ideas were ultimately shown to have little connection to ethnographic evidence (de Mille, 1990; Fikes, 1993), although they arguably had some allegorical value and are consistent with the concept of entheogenic education.

consciousness. Likewise, Thomas Roberts, an emeritus professor of education, has argued that psychedelics or entheogens are a key tool for modulating mind-body states or producing non-ordinary states of consciousness, by which creative, intellectual or spiritual development may be stimulated (Roberts, 1983; 2006). The topic of plant teachers was the subject of a special issue of the *Whole Earth Review* edited by Terence McKenna and Howard Rheingold (Kelly, 1989), and the ritual use of psychoactive substances for educational purposes was explored in a special edition of the Multidisciplinary Association for Psychedelic Studies' bulletin, titled "Rites of Passage: Kids and Psychedelics" (Hanna & Thyssen, 2004). Most promoters of the idea that this particular class of substances represents a kind of cognitive or educational tool also emphasize the importance of context and intention in their circumspect use, which the strict and elaborate ritual traditions of various indigenous entheogenic practices have long betokened. However, to explain precisely how and why this is so requires further work in developing a theoretical framework for entheogenic education, and using it to conduct empirical research with individuals and communities. 162

It is also worth noting at the outset of a discussion of the potential educational value of ayahuasca drinking that cognitive psychologist Benny Shanon offers a "schooling" metaphor for the sustained practice of partaking of the brew (2002, pp. 301-303). Shanon suggests that a hedonistic approach to drinking ayahuasca, "with the aim of having exciting experiences—either fun or great drama" (p. 301), is akin to approaching learning about classical music by cursorily listening to a few tracks in a music shop, or learning about literature by leafing through a few books in the library. Rather, he argues that engagement in these kinds of learning is "a long accumulative process . . . and always it involves concentration and reflection" (p. 302). Just so, Shanon suggests, one must take the same sustained and mindful approach in realizing what ayahuasca has to offer, "no different from any other serious learning experience" (p. 302). Based on his own experiences drinking ayahuasca, Shanon observes that

As one gains more experience with the brew, one discovers that what happens to one under the intoxication is not haphazard—it seems to have an internal logic and order. It is

<sup>&</sup>lt;sup>162</sup> One recent example of such empirical work is Shannon Campbell's deployment of a "cognitive tool questionnaire" (2010), to assess potential beneficial psychological and cognitive impacts of psilocybin and peyote use, which developed ideas from my earlier theorizing on entheogenic education and intelligence to design a novel research instrument.

as if there is, within the brew itself, a wise teacher who decides what one should experience and learn in each session. At the time, during each particular session, this may not be evident but in retrospect the picture becomes clear and then its coherence is often most impressive. (p. 302)

Shanon notes that the "plant teacher" metaphor is common among indigenous and *mestizo* discourses relating to ayahuasca, and that he has heard the same characterization of a sense of systematized learning from other experienced ayahuasca drinkers (Shanon, 2010).

#### 6.1 – Wonder & Awe

The need for the concept of entheogenic education arises in part from a sociological critique of contemporary schooling, that this modern socio-political institution fails to stimulate or otherwise foster emotions of wonder and awe, thus contributing to psychological malaises characteristic of late-capitalist modernity. A sustained lack of wonder and awe, which are vital yet underappreciated human emotions for optimal education and development, as I will discuss below, produces what Weber (1957) characterized as "disenchantment"—a condition he believed was generated as a by-product of the secularism, bureaucratic governance, and instrumental rationality intrinsic to modernity. Enchantment, by contrast, is an existential condition in which wonder and awe play a pivotal role; as Bennett describes its phenomenology, "enchantment entails a state of wonder . . . . You notice new colors, discern details previously ignored, hear extraordinary sounds, as familiar landscapes of sense sharpen and intensify" (2001, p. 5, italics original). By this account, which reads remarkably like a description of the psychedelic or entheogenic states of consciousness that conventional schooling and other systems of governance are steadfastly committed to suppressing, the condition of enchantment is intrinsically connected to emotions of wonder and awe. In their more acute or intense manifestations, wonder and awe may become full-blown numinous experiences, the mysterium tremendum et fascinans that Otto (1958) identified with the holy and transcendent. These feelings or emotions are corollaries of experiences of spirituality and extreme beauty (Cohen, Gruber & Keltner, 2010), and are definitive characteristics of primary mystical experiences, which certain psychoactive substances have been demonstrated reliably to evoke. 163

<sup>&</sup>lt;sup>163</sup> Walter Pahnke's "Good Friday Experiment" at Harvard in 1962 empirically demonstrated the potential value of psilocybin in producing mystical experiences (Doblin, 1991; Pahnke, 1967). More recent studies by a research team

Wonder has received some positive attention in educational studies—it has been recognized as a stimulus for philosophical inquiry by the likes of Plato to Descartes, and domains of aesthetics, religion, and science all put some degree of importance on it (Fisher, 1998; Fuller, 2006; Verhoeven, 1972). However, the value of wonder and awe is typically characterized as extrinsic and subordinated to other more important cultural norms, such as efficiency, profitability or technical rationality. As Campbell suggests, wonder today "is eschewed but also craved, wildly popular and markedly absent as a value, in discourses of power such as those of business, government, the sciences and 'rigorous scholarship'" (1999, p. 4). Yet, while the dominant modern Euroamerican cultural attitude towards wonder and awe has been cyclically ambivalent for centuries, at the turn of the 21<sup>st</sup> century these emotions have at best a marginal presence in both educational and public policy considerations. Jeremy Narby sums it up succinctly in observing that "rational discourse, which holds a monopoly on the subject [of modern biomedicine], denies itself a sense of wonder" (1998, p. 157). Narby's point applies just as aptly to modern schooling, where wonder has received short shrift in institutional practice (Egan, 1997), not to mention as a topic of academic inquiry in psychology and related disciplines (Keltner & Haidt, 2003). As we shall see, this state of affairs has been a long time in the making and has consequently impoverished both individual and collective educational possibilities available in modern institutional systems and structures.

In the late medieval and early modern period of European history, from the 12<sup>th</sup> to 17<sup>th</sup> centuries, elite attitudes towards wondrous experiences and phenomena undulated between admiration and fear (Daston & Park, 1998). Francis Bacon, a key agent in the development of scientific thought and practice in the early 17<sup>th</sup> century, advocated collecting and collating wonders of the natural, preternatural and supernatural kind as a central activity of his epistemological project to establish the limits of nature. <sup>164</sup> By the early 18<sup>th</sup> century, however, at the time the bourgeois public sphere

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at Johns Hopkins School of Medicine have corroborated Pahnke's findings (Griffiths, Richards, McCann & Jesse, 2006; Griffiths, Richards, Johnson, McCann & Jesse, 2008).

<sup>&</sup>lt;sup>164</sup> Carolyn Merchant (1980) trenchantly applies an eco-feminist perspective to critique Bacon and the scientific revolution he championed as a morally misguided pursuit of dominance over a "nature" discursively framed as a female entity whom "man" could explore, tease secrets out of, manipulate and press into submission—a patriarchal narrative deeply embedded in the modern socioeconomic worldview and causally implicated in the 21<sup>st</sup> century human ecological predicament.

was emerging, Euroamerican intellectual and political elites had begun to reject wonder and wonders. By then,

wonder in natural philosophy smacked of the disruptive forces of enthusiasm and superstition in religion and politics. . . . [thus] central to the new, secular meaning of enlightenment as a state of mind and a way of life was the rejection of the marvelous. (Daston & Park, 1998, p. 331)

With the rise of norms of sobriety, civility and secularity among European intellectual elites (see chapter 3 above), wonder began to be associated with vulgar ignorance, and was an emotion to be shunned by the new kind of natural philosophers trained in the experimental procedures of empirical inquiry and quantification (Shapin, 1996). The continued ascendance of secular scientific rationalism and its influence on governmentality in the 19<sup>th</sup> century—perhaps epitomized by Darwin's theory of evolution and speciation by natural selection, which largely eviscerated any remaining sense of the divine in human affairs, but also marked by the growth of industrialization, urbanization and complex political bureaucracies—led Weber famously to proclaim "disenchantment of the world" as a defining characteristic of modernity (1957). Weber's observations on disenchantment are indicative of the broader antipathy towards wonder and awe that was becoming entrenched in public institutions such as science, medicine and politics in the 19<sup>th</sup> century. Most important from an educational and policy perspective, however, is that the institution of public schooling was being established as a core institutional apparatus of the nation state just as disenchantment was unfolding as a seemingly ineluctable sociological by-product of modernity (Illich, 1971). Ironically, many of social problems in today's schools including problematic substance use—over which educators, administrators and parents perennially fret, may be a function of youth pursuing dysfunctional means of re-enchantment that are not only educationally, but also psychologically, culturally and ecologically debilitating (Vokey, 2001).

If one were tasked with purposefully designing a system to suppress experiences of wonder and awe, it would difficult to imagine coming up with a scheme more effective than the compulsory schooling of the modern nation state. Arising in late 18th century Prussia, public schools were designed to serve the social engineering needs of the emerging military-industrial economies (Ramirez & Boli, 1987), which required patriotic soldiers, compliant laborers, and most

importantly, insatiable consumers more urgently than enlightened and critically-thinking citizens (Illich, 1971). It is evident in a number of ways how the structuring or regulation of space, time, bodies, social relations, and authority in today's educational institutions do not lend themselves to the cultivation of wonder, awe and enchantment. Indeed, the architectures, regimens and cultures of modern schools appear intentionally inimical to such experiences: rows of desks laid out in blocks of rooms in stark buildings; rigid transit and transportation schedules; periods and breaks demarcated with bells; overcrowded classes in which basic behaviour control is a primary concern, and for which an increasing number of students are on prescribed regimens of pharmaceutical medications; educators, administrators and support staff who are undervalued, underpaid and often burnt out; an entrenched labour union mentality among employees that does not always promote students' interests first; and a complex bureaucratic and political system undergirding the whole institution.

One of the most disenchanting aspects of modern schooling may be its institutional affinity towards positivism and scientism, the quintessentially modern ideologies that the scientific world-view, predicated on values of reason, materialism, reductionism and technical rationality, is the only legitimate way of knowing (Sorrell, 1991; Wallerstein, 2004, p. 13). Scientism combined early modern norms that guided civil discourse and rational inquiry—such as the objectivity and neutrality practiced by Euroamerican natural philosophers in the 17<sup>th</sup> and 18<sup>th</sup> centuries—with the hierarchies of science and knowledge postulated by 19<sup>th</sup> century positivist thinkers such as August Comte, John Stuart Mill, and Herbert Spencer and the general Enlightenment trend towards secularism. It was further inspired by the revolution in measurement, quantification and statistical analysis of populations in social and political fields, and the corresponding growth of liberalism as a form of governmentality that took place in the 19<sup>th</sup> century (Hacking, 1991). Paradoxically, scientism evolved into a belief system whereby the ideals of neutrality, objectivity and quantification were demanded of all forms of human knowledge, a position on epistemic legitimacy no less dogmatic than the religious convictions from which early scientists had originally sought to distance themselves.

The legacy of scientism in modern public education is evident in various aspects of the institutions of schools and universities, including: the curricular representation of scientific

knowledge as uncontroversial, value-free and depoliticized (Apple, 2004); the systemic exclusion of competing ways of knowing, such as traditional indigenous forms of knowledge (Smith, 1999; Vasquez, 1998); the imperative to quantify and rank both individual and collective student performance (Illich, 1971, p. 40); and the subtle (or sometimes overt) ways that schools, post-secondary institutions and granting bodies can privilege market-oriented or similarly "productive" science or engineering courses, subjects, faculties or staff through salaries, grants, donations, and other funding (Bureau of Labor Statistics, 2010; Jones & Young, 2004). In the mainstream public and political discourses of late modernity, science has become synonymous with material technology, which in turn translates into military power, industrial production, and capitalist economic development (Noble, 1979). Since the power/knowledge interests of governments and corporations are well served by scientific research and its technological applications, these institutions have an implicit interest in prioritizing science in public educational endeavours. Unfortunately, the trends in late modern science mean that philosophical reflection on the nature of the cosmos is near the bottom of the list of priorities for many of today's professional scientists, for whom publishing papers, securing patents, pursuing grants, and otherwise successfully competing for recognition and funding in a vicious and dehumanizing corporate academic environment are primary concerns.

All this is not to deny that science is an exceptional human cultural achievement. The intersubjective norms of experimental inquiry, empirical demonstration and public discourse that characterize the scientific method have provided humans a powerful means by which to understand and manipulate the natural world, in turn spawning seemingly miraculous technological and material marvels. It is also not to suggest that science is not a worthy element of the curriculum; any comprehensive education should include basic knowledge of scientific principles, methods, history and achievements. Indeed, scientific knowledge and ideas have informed a good deal of the thinking that has gone into this dissertation, and certainly much more can be learned about ayahuasca from its scientific study. Rather, my critique is that the power of science, reason and technical rationality in the operation of the modern capitalist nation state (including public policy, education, and broader positivist knowledge discourses) seems neither checked nor balanced by consideration or foresight about where it is going, what its ultimate aims are, how its benefits are distributed, and what costs are generated by its epistemic

hegemony. Given the examples of techno-scientific inventions initially heralded as miraculous that turn out to have externalities whose deleterious (if not catastrophic) impact becomes apparent only after they have been deployed, <sup>165</sup> it seems shortsighted not to ask whether the benefits of accelerating scientific discoveries may not be outweighed by their costs. At the very least, prudence would demand that how scientific inquiry proceeds and the value accorded to its results be tempered with some awareness and consideration of its social, political, economic and educational consequences (Suzuki & Taylor, 2009).

One of the most detrimental costs of the privileged epistemic position of science in modern culture, capitalist economics, and liberal governmentality may be the *opportunity cost* of neglecting other valuable ways of knowing. Wade Davis makes this point in his recent Massey Lectures (and book), *The Wayfinders* (2009), arguing that the knowledge and wisdom of cultures long deemed primitive and backwards by modern standard—and consequently in imminent danger of being lost—may in fact be valuable for all humans at this juncture in history. Indeed, along these lines, it could be that scientific rationalism is not the only, nor even the best, cognitive tool for understanding and finding meaning in oneself, one's society, humanity, life and the cosmos. In this respect, ayahuasca or other entheogens could have an important role to play as alternative means for fostering very different but no less valuable forms of cognition (McKenna, 1992). As Shanon candidly recounts:

Ayahuasca brought me, for the first time in my life, to doubt the validity of the Western world-view. With this, again for the first time in my life, I began to wonder whether science as we normally understand it suffers from some fundamental limitations and that, in fact, it may seriously hinder and inhibit us from understanding some crucial aspects of reality. I began seriously to entertain the possibility (still unproven) that there are other, complementary sources for knowledge, ones that do not employ the instruments and methodologies developed by modern science. (2002, p. 166)

What Shanon describes is his coming to an acute awareness of the shortcomings of scientism, and the insight that ayahuasca drinking or similar entheogenic practices are an effective way to

<sup>&</sup>lt;sup>165</sup> The petroleum-based internal combustion engine, thermonuclear weapons, chlorofluorocarbon refrigerants, and the pesticide DDT are a few examples. Likewise, human mortality prevention, or at least life extension, by modern medical technologies (e.g. vaccination, antimicrobial agents, and soon genomics), while ostensibly a boon for individuals with access to them, may be having global population-level effects that are ultimately adverse to the sustainable collective well-being of our species (Illich, 1976).

apprehend these limitations, among other philosophical and psychological insights (Shanon, 2002, pp. 324-25). Another way of interpreting this awareness is as a re-enchantment mediated by a powerful cognitive tool—the educing of transcendental experiences that can transform one's capacity for deep reflection and learning. Indeed, as Shanon points out in a more recent philosophical essay, disenchantment is difficult to sustain after some experience with the Amazonian brew, as it is "shrouded in magic and mystery, wonderment, and enchantment . . . in all ayahuasca traditions and contexts of use: the Amerindian myths dealing with the brew, the theologies of the new syncretic churches in Brazil, and the private experiences of contemporary drinkers" (2010, p. 276). In this essay, Shanon suggests that, while ayahuasca does not impart "factual" knowledge (i.e., information), it does educe: psychological knowledge—"personal insights, self understanding, and novel psychological comprehension" (p. 267); knowledge related to nature and life—"insights and apprehension concerning plants, animals and the global phenomenon of biological life" (p. 268); metaphysical ideations and reflections (p. 269); and knowledge of somatic awareness or general well-being—"[under the influence of ayahuasca] people . . . feel that they are endowed with more stamina, are more in touch with their bodies, better tuned, and a state of higher overall existential harmony" (p. 270). In these and other respects, ayahuasca drinking is an example of a non-intellectual way of knowing, a valuable learning experience facilitated by the use of an entheogenic cognitive tool that can reliably counteract the disenchanting effects of modern culture's secular materialism and positivistic scientism. 166

The sociological phenomenon that Weber identified as disenchantment in the 19<sup>th</sup> century was not then, and is not now, a linear, uniform process. Indeed, as Bauman argues, a "resistance to dis-enchantment, hardly ever put to sleep, was all along the 'postmodern thorn' in the body of modernity" (1993, p. 33). Late 18<sup>th</sup> and early 19<sup>th</sup> century movements in philosophy and literature—including German idealism, English Romanticism and American transcendentalism—emphasized wonder, nature, imagination, and individual genius as antidotes to the alienation

<sup>&</sup>lt;sup>166</sup> Another way of conceiving of how entheogens may function as educational tools is their capacity to challenge perceptions of self-other duality—patterns of thinking by which the ego projects separate identity from the so-called "objective" world—that other "wisdom traditions," such as Mahāyāna Buddhist meditation practices, aim to achieve (Vokey, 2008). Insights on overlaps between psychedelics and Buddhism have been collected by Badiner & Grey (2002), and research on psychedelics as a pathway to Buddhist study and practice was conducted by Tart (1991). For a discussion of similarities specifically between ayahuasca drinking and Buddhism, see Coyote (2010).

from spirit and nature perceived in Enlightenment values of reason, secularism and universalism (Fisher, 1998; Solomon, 1983; Versluis, 1993). For most early childhood education programs, and some primary education and secondary alternative education programs—such as Montessori, Waldorf and others with "holistic" or spiritual approaches—the Romantic vision remains a strong underlying guiding pedagogical principle (Willinsky, 1990). Likewise, in the attempt to recover cultural identities devastated by Canadian residential schools and concomitant political subjugation of Aboriginal peoples, trends in revitalized indigenous education incorporate traditional ways of knowing, such as oral, intergenerational, and place-centred educational practices, that may act as ramparts against disenchantment, dislocation and other more insidious effects of colonialism and free-market capitalism (Aikenhead, 1997; Des Jarlais, 2008; May, 1999). Saler cites the mass appeal over the past two centuries of mesmerism, the occult, secular magic, pulp science fiction stories, fantasy films and television programs, and most recently video and multiplayer online role-playing games, as examples of the (post)modern tendency to seek "a form of enchantment that delights but does not delude, a disenchanted enchantment" (2006, p. 708; see also Landy & Saler, 2009). Such institutional and sociological phenomena illustrate that, in the modern cultural trend towards disenchantment over the past few centuries, there have nevertheless been eddies and back-currents of resistance.

There has been a more concerted challenge to the narrative of modern scientific rationalism and its consequent disenchanting effects in the late 20<sup>th</sup> century, through the rise of postmodernist theoretical thought, <sup>167</sup> but the mechanisms identified as possible means of re-enchantment—in particular, the material marvels of techno-science and consumerism—are questionable. An example of such a materialistic kind of re-enchantment is identified by both Bennett (2001) and Ritzer (1999), who argue that commodification and consumerism represent postmodern capitalist forms of enchantment. Bennett questions the academically fashionable narrative of disenchantment, arguing that wonder, awe and transcendence may still be experienced through a variety of contemporary activities. For her this raises the question "how commercial items . . .

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<sup>&</sup>lt;sup>167</sup> Postmodernity refers to the form of late modernity that can be distinguished by a number of sociological factors arising in the second half of the 20<sup>th</sup> century, including: a shift in the organizing principle for economic and social relations from production of goods to consumption of information and services; a deterritorialization, or compression of space and time (and lack of attachment to place), resulting from transportation and communications technologies; an eclipse of the nation state by corporations and other non-state actors; and a suspicion, or outright rejection, of grand meta-narratives built on universal conceptions of human nature or culture (Rojek, 2000; Bauman 1993).

[or] their artistic representation (in ads as well as in the consumer's imagination), can enchant" (2001, p. 114). Bennett takes a critical stance towards the ethics of what she describes as an "enchanted materialism," but suggests that the fetishism of commodities may provoke a form of wonder and re-enchantment among modern consumers.

Ritzer (1999) takes a more literal approach to consumerism as form of re-enchantment, arguing that spectacular malls, superstores, restaurants, casinos, stadiums and theme parks are "cathedrals of consumption" that provoke wonder, awe and enchantment. Although quintessentially sociological phenomena of the United States, these forms of consumption have been promoted through channels of global Euroamerican economic and cultural imperialism, so that now anyone may participate who is in a global wealth demographic that even remotely approximates the rich or "super-rich" (Rothkopf, 2008). Children especially are targeted by powerful corporate and popular cultural messaging that promotes the fulfillment of a need for enchantment through consumption, to ensure that capitalism preserves an expanding consumer base to sustain itself (Ewan, 1976; Langer, 2002). Governments, schools and universities are complicit in promoting consumerist forms of re-enchantment, both through the neo-liberal shift towards increased corporate agendas in classrooms and on campuses and through a sustained failure to acknowledge the need for alternative means of experiencing wonder, awe, and enchantment.

British novelist Aldous Huxley observed more than half a century ago that young people's needs for wonder and awe are not being met by modern school system, and that this led to disenchantment or an "enchanted materialism" of consumerism:

Under the current dispensation the vast majority of individuals lose, in the course of education, all the openness to inspiration, all the capacity to be aware of other things than those enumerated in the Sears-Roebuck catalogue which constitutes the conventionally "real" world. (Letter to Dr. Humphrey Osmond, April 10th, 1953—in Horowitz & Palmer, 1999, p. 30)

Since Huxley made this observation, cultural, economic and technological shifts have exacerbated the predicament he identified. However, more important for my thesis is what Huxley optimistically held out as a possible educational alternative:

Is it too much to hope that a system of education may some day be devised, which shall give results, in terms of human development, commensurate with the time, money, energy and devotion expended? In such a system of education it may be that mescalin or some other chemical substance may play a part by making it possible for young people to "taste and see" what they have learned about at second hand . . . in the writings of the religious, or the works of poets, painters and musicians. (Letter to Dr. Humphrey Osmond, April 10<sup>th</sup>, 1953—in Horowitz & Palmer, 1999, p. 30)

Huxley believed entheogens or psychedelics held potential to counter the materialisticallyoriented wonders of consumerism, and he envisioned the possibility of their deployment as form
of educational re-enchantment. He affirmed this in his final novel *Island* (1962), describing a
utopian society that incorporated a fictional entheogenic "moksha medicine" in rites of passage,
including for educational purposes in transition from youth to adulthood. Huxley realized his
own vision of the palliative possibilities of LSD—a substance he felt was a boon to humanity—
when he died peacefully under its influence in 1963 (Huxley, 1968). As discussed above, others
have expressed similar beliefs in the potential of psychedelics or entheogens explicitly as tools
for education, but these views have been mostly a marginal side-current with respect to
mainstream educational research and practice. This chapter develops more fully elements of a
theoretical foundation upon which Huxley's educational vision could be realized, and establishes
an account of how ayahuasca may indeed be a plant teacher (or at least a cognitive tool for
stimulating, wonder, awe and re-enchantment) and the implications this has for public policy.

Contemporary public schooling is embedded in, and in many ways beholden to, a complex politico-economic system that has competing priorities for young people's minds. Kieran Egan (1997, chap. 1) argues that modern schools, as products of the socioeconomic forces of industrialization in the 19<sup>th</sup> century, attempt to accomplish three mutually incompatible tasks: 1) socialize young people into the norms and conventions of society, thereby perpetuating its central values and producing compliant citizens—or with the neo-liberal imperative of the past few decades, consumers—who fulfill cultural and economic expectations; 2) lead young people through a process of learning that stems from a Platonic program of seeking truth, to secure a privileged, rational view of reality; and 3) allow children to follow natural psychological processes of development to discover and foster their individual potentials. Egan argues that each of these purposes is inherently incompatible with the other two, yet schools continue to try to

implement programs and policies that attempt (largely unsuccessfully) to do all three simultaneously. To these jointly incompatible purposes I would also add the (mental, physical and emotional) health agenda, which has made inroads in contemporary schooling through health promotion and illness prevention policies and programs in classrooms (Cribb, 1986). However, none of these instrumental educational goals provides any impetus to ensure that wonder, awe and enchantment are retained in the transition from the carefree early childhood years, when they are begrudgingly tolerated, into adulthood, when more grown-up concerns—such as employment, consumption, and debt management <sup>168</sup>—are expected to be primary motivational forces.

In Egan's prior work on imagination and education, he argued that experiences of wonder and awe are essential to stimulating imagination and cultivating a meaningful life, that people's creativity and self-actualization may be impoverished without them, and that contemporary educational practices do not generally lead to their cultivation (Egan, 1992). Environmental educator David Orr concurs, suggesting that "[a]s our sense of wonder in nature diminishes, so too does our sense of the sacred, our pleasure in the created world, and the impulse behind a great deal of our best thinking" (1993, p. 23). University of Pennsylvania psychology researcher Martin Seligman recently made a similar observation in an address to the American Psychological Association:

In the last 50 years, the U.S. population has seen an increase in their standard of living, such as having more money, owning more homes and cars and living longer. But our sense of meaning, purpose and satisfaction with life have not gone up, they have gone down. . . . This has been especially detrimental to children. (Seligman, 2009)

Deriving meaning, purpose and satisfaction from life must be considered among the highest goals of human existence, yet contemporary school-based education does very little explicitly to foster such outcomes. Part of this is a consequence of modern schools' apparent systemic incapacity to stimulate wonder, an emotion that, as Robert Fuller asserts,

<sup>&</sup>lt;sup>168</sup> Although seldom critically or systematically probed in educational, political or public discourses, debt (or, perhaps more accurately, usury) and fractional reserve monetary policy play an important role as mechanisms of social control in modern capitalist societies. See, for example, Ellen Hodgson Brown's (2008) exposé on debt in the United States, Douglas Rushkoff's recent book, *Life Inc.* (2009), and Paul Grignon's online educational video, "Money as Debt" (2006).

is characterized by its rare ability to elicit prolonged engagement with life. Experiences of wonder succeed in motivating creative and constructive approaches to life by imbuing the surrounding world with an alluring luster. Experiences of wonder enable us to view the world independent of its relationships to our immediate needs. (2006, p. 157)

Pre-school children, if they have received the basic emotional nurturance needed for healthy early development, are imbued with a sense of wonder about everything around them, eager to learn and explore. However, at the end of high school, many adolescents (if they managed to remain engaged in the formal education system that long) have become pre-occupied with peeroriented social matters and material goods. They seem to have lost "the wide-eyed wonder that leads a child to have excitement for the world, for exploring the wonders of nature or of human creativity. . . . [Rather, teens] appear to be easily bored when away from each other or when not engaged with technology" (Neufeld & Mate, 2005, p. 4). Changes in the brains and minds of children have occurred as a consequence of inordinate amounts of time spent engaged with the mass communication medium of television (Healy, 1999; Krcmar, 2009), through which slick and enticing advertisements solidify their identities as passive consumers of commodities and entertainment (Ewen, 1976), but do little to foster their innate creativity, curiosity and enthusiasm for non-commercial activities. Whether in classrooms or on screens, the agenda of modern educational endeavours is strongly oriented towards producing compliant consumers steeped in secular materialism, the primary fuel for the economic engine of capitalism; yet, as Illich observes, for the most part "we are not aware of the ritual through which school shapes the progressive consumer—the economy's major resource" (1971, p. 51).

Traditional cultural or religious rites of passage are examples of practices designed to provoke wonder and awe in youth transitioning to adulthood, by inducing them to undergo physical or psychological ordeals that often induce altered states of consciousness. However, in modern societies such practices happen primarily in attenuated "liminoid" forms that lack the transformational or symbolic power of their predecessors (Turner, 1969; 1977). Indeed, generally absent in modern educational pursuits, both for youth in schools and for adults in the academy, is any attempt to stimulate experiences of wonder and awe (Keltner & Haidt, 2003). An institution rooted in the ambitions of modern nationhood among 18<sup>th</sup> century Prussian political and military leaders (Ramirez & Boli, 1987), today's public schools tend to follow an ossified formalized

educational process that upholds the vestigial antipathy Western culture established towards wonder and awe, with little or nothing to offer youth as an antidote to the disenchantment wrought by late capitalist modernity. In earlier work, I articulated one potential form of praxis (i.e., the transformation of theory into practice) for entheogenic education, an experiential education retreat (akin to Outward Bound) for teens that incorporated a ritual with ayahuasca or a similar substance (Tupper, 2002a; 2003).

# **6.2** – Cognitive Tools

Using his critique of modern schooling and its confused aims as a starting point, Kieran Egan takes an innovative alternative theoretical approach to education that provides a useful grounding for a theory of entheogenic education. I have explored this line of inquiry in earlier work (Tupper, 2002a; 2003), but will summarize briefly and expand on it here. Established in a trilogy of books—The Educated Mind (1997), Getting It Wrong from the Beginning (2002), and The Future of Education (2008)—Egan's work is nothing less than a complete re-think of the foundations of contemporary schooling. Egan addresses his own criticisms about the incompatibility of the several competing purposes of contemporary schooling by proposing a new approach to education based on the ideas of Soviet psychologist Lev Vygotsky (1978), who suggested that human learning is culturally mediated through the use of psychological or cognitive tools. From this perspective, Egan (1997) argues that human "understanding" can be categorized into five types—somatic, mythic, romantic, philosophic and ironic—each of which is associated with a period of human cultural development and facility with particular kinds of cognitive tools. According to Egan, the ideal process of education is one that recapitulates human cultural evolution by nurturing the individual's facility with various cognitive tools, including (respectively, for each kind of understanding): body-centred and sensory awareness practices; orality and story-telling; literacy, numeracy and symbolism; logic and rationality; and theoretical self-reflexivity.

One of Egan's primary critical observations about contemporary school-based education is that it focuses on the latter two kinds of understanding—philosophic and ironic—while neglecting somatic, mythic, and to a lesser degree, romantic understanding. However, Egan contends that ideally a balance among them should be sought, as "the gains that come with each new set of

intellectual tools . . . [entail] some loss of the understanding associated with the prior set" (1997, p. 7). He reiterates this idea by observing that "with the accumulation of cognitive tools . . . our ability to learn is enlarged but is also constrained by the tools that are enlarging it, just as the telescope enlarges some particular object by constraining our field of vision" (2002, p. 70). Egan's point is that, as facility with the tools for philosophic and ironic understanding increases, there is a concomitant loss of capacity to appreciate the more elementary somatic and mythic types of understanding. One way to mitigate this, however, is to ensure that these more basic kinds of understanding are promoted or preserved through the use of particular kinds of cognitive tools that develop, sustain or reinvigorate them.

Vygotsky, on whose theoretical work Egan's ideas about cognitive tools derives, was a Russian psychologist who specialized in child development and learning in the years following the 1917 Soviet revolution, and was one of the founders of the cultural-historical school of psychology. Unlike the more famous work on classical conditioning with dogs done by his contemporary compatriot, Ivan Pavlov, Vygotsky's publications and notes on human memory, inner speech and play were not translated into English until the 1960s, so his ideas only became more widely known in the broader global academic community in the 1970s (Sinha, 1989). Education faculties were among those influenced by the introduction of Vygotskian psychological theory, which represented a break from the more established Piagetian universalist approach to child development (Gajdamaschko, 2005). Pedagogical theorist Brent Davis explains that:

One of Vygotsky's particular interests—and a main reason for his current popularity among those interested in questions of learning and knowing—was the process by which individuals come to interiorize the world into which they are born. . . . [This focus] also prompted his attention toward, for example, the ways that [oral and written] language and other cultural tools work to delimit interpretive possibilities, enable conceptual reach, and contribute to the social corpus that is united in its common sense (Davis, 2004, p. 122)

Vygotsky retreated from individualistic theories of mind, putting greater importance on the socio-cultural environment, interactions with which, he proposed, are mediated through cognitive tools (Kozulin, Gindis, Ageyev and Miller, 2003). As John-Steiner and Souberman observe, Vygotsky believed that "because the historical conditions which determine to a large extent the opportunities for human experience are constantly changing, there can be no universal schema that adequately represents the dynamic relation between internal and external aspects of

development" (1978, p. 125). Among these historical conditions are the set of both material and cognitive tools a group or culture has incorporated into (or, as with psychedelics, deracinated from) its social, political, economic and spiritual relations.

Vygotsky (1997) understood cognitive tools as human symbolic, mnemonic and behavioural techniques or activities that "are directed toward the mastery of mental processes—one's own or someone else's—just as technical devices are directed toward the mastery of processes of nature" (p. 85). As examples of cognitive tools, Vygotsky listed "language, different forms of numeration and counting, mnemotechnic techniques, algebraic symbolism, works of art, writing, schemes, diagrams, maps, blueprints, all sorts of conventional signs, etc." (p. 85). However, as the closing et cetera indicates, this list is not meant to be exhaustive. In light of Egan's (2008) argument that education can helpfully be understood as a function of the accumulation of cognitive tools in one's (and one's society's) repertoire, it behooves us to ask what other kinds of tools might be included in this list, especially ones that Vygotsky may not have perceived himself. Tools to stimulate wonder and awe—emotions which may in turn induce mystical, spiritual or religious experiences—would not have been readily acknowledged by a researcher steeped in the dialectical materialism of Marx and Engels, and working within Leninist and ultimately Stalinist political environments (Au, 2007). 169 Yet, if ritually-mediated, substanceinduced altered states of consciousness are considered through a Vygotskian theoretical lens, a range of possibilities opens up for the concept of entheogenic education. To see how, it is helpful to delve further into the cultural-historical approach to psychology and its explanation of the relationship between mind, brain, and environment.

A considerable amount of 20<sup>th</sup> century cognitive psychology and educational theory has been devoted to the individual behaviours, traits, and characteristics that can readily be measured or counted, such as stimulus response, pattern recognition, computational performance, or more "hard-wired" phenotypic elements of neural pathways in specific brains. However, this

<sup>&</sup>lt;sup>169</sup> Susan Pass (2004) argues that despite Vygotsky's official atheism, his own education in a traditional Jewish family influenced the social nature of his theories. Although Pass (2004) does not make this connection, Vygotsky's religious background also provides further context for the importance he put on written language, as the "people of the book"—as ancient Jews referred to themselves—essentially deified the cognitive tool of literacy in their fetishizing of particular texts considered to be holy scriptures (still an intrinsic and defining feature of the three contemporary Abrahamic faiths of Judaism, Christianity and Islam).

individualistic focus, which modern technologically-driven neurophysiological inquiry expresses with ever-increasing diligence and sophistication, does not adequately capture the role that culture plays in human cognition. Cultural-historical psychology shifts the balance towards the social dimension, emphasizing the collective nature of learning and development. This approach posits that "understanding what is distinctive about human reason [and cognition] . . . involves understanding the complementary contributions of both biology and (broadly speaking) technology, as well as the dense, reciprocal patterns of causal and co-evolutionary influence that has run between them" (Clark, 2004, p. 34). The cultural-historical psychological perspective does not deny the specifics of the individual, but rather situates cognition in a broader social context and considers how it—and as recent neuroimaging technology corroborates, its biological substrate in the brain—changes with the use of specific kinds of cognitive tools. As a heuristic move, this allows for a theoretical understanding of cognition (or at least an important part of it) as a socially distributed phenomenon (Cole & Engeström, 1993; Kim & Reeves, 2007; Salomon, 1993), and for research that takes into account the use of culturally-mediated cognitive tools.

A few examples of particular cognitive tools illustrate the complex relationship between the brain/mind and the external world, for which universal schemas of cognition and development focusing on the individual do not seem adequately to account. Research on abacus prodigies, who have mastered the device as a cognitive tool to aid calculation, shows that its use determinatively structures their neural architecture (Hanakawa, Honda, Okadac, Fukuyama & Shibasakia, 2003). Likewise, literate peoples who learn different writing forms—such as alphabetic (English), syllabic (Japanese hiragana) or logographic (Chinese)—have differently organized brains as a result (Wolf, 2007). Microprocessors etched on silicon are the basis of the personal computer, a cognitive tool par excellence that is now spawning further meta-cognitive tools for highly creative forms of distributed cognition, such as wikis, social networking, information retrieval, and video, audio and text file sharing (Lajoie & Derry, 1993). To learn to sing or play a percussion or musical instrument may also be understood as mastering a

<sup>&</sup>lt;sup>170</sup> Markoff (2005) documents the relationship between a sub-culture of psychedelic drug use among graduate students at Stanford and Berkeley in the San Francisco Bay area and the nascent computer industry in Silicon Valley in the early 1960s, from which sprang a number of inspirations and cultural trends—such as the open source movement, the hacker ethos, digital music, art and design, and an appreciation for psychedelic experiences—that still resonate deeply in broader popular culture today (see also Davis, 1998; Hagerty, 2000; Rushkoff, 1994).

rudimentary kind of cognitive tool that has a range of ancillary beneficial cognitive effects (Levitin, 2006), <sup>171</sup> and for which ensemble or orchestral arrangements and performances represent complex kinds of distributed cognition.

The kinds of cognitive tools a culture recognizes as such, and the social importance they carry, reflects in part its collective understanding of the human mind and consciousness. A useful illustration of this point is the fact that modern Western education greatly privileges cognitive tools for modulating logical mental processes over ones that more overtly target psychointegrative or somatic processes (i.e., reading, writing and arithmetic are prioritized over visual arts, music, dance, meditation or yoga). While the legacy of Cartesian dualist thinking remains deeply embedded in much of mainstream psychology, education, and public policy, more integrative models of cognition and consciousness in new post-Cartesian psychological perspectives are starting to eclipse the long-standing mind-body division (Lakoff & Johnson, 1999; Searle, 2004). Along the same lines, the historical reluctance of comparative psychologists to attribute consciousness to primates and other animals is giving way to new scientific disciplines, such as cognitive ethology, which are generating empirical evidence for non-human metacognition, although it is noteworthy that some experienced psychedelic and entheogenic substance users have proposed that such substances may facilitate direct apperception of a kind of consciousness shared by animals, plants, and possibly all other non-human DNA-based life forms (Lilly, 1967; Narby, 2005). As it relates to human culture and consciousness, the cognitive tool metaphor underlying the role certain psychoactive substances have in entheogenic education also provides a heuristic for considering whether individuals from radically different cultural backgrounds (and thus having different kinds of education and cognitive tools at their disposal) may experience different kinds of psychopharmacological effects from drinking ayahuasca. For example, does a modern "educated" individual's high level of facility with written language potentiate a different kind of experience with ayahuasca than that of someone from a traditionally non-literate or oral culture? Does facility with other kinds of cognitive tools, such as

<sup>&</sup>lt;sup>171</sup> Recent research on the relationship between human emotional and neurochemical anticipatory responses to music indicates that the reward circuitry of the dopaminergic system is a biological substrate that can be altered by the abstract stimuli of sequences of tones unfolding over time, a phenomenon that, according to the authors, "speak[s] to why music can be effectively used in rituals . . . to manipulate hedonic states" (Salimpoor, Benovoy, Larcher, Dagher & Zatorre, 2011, p. 6). It is in this respect, akin to the neurological effects that circumspect psychoactive substance use may have, that I also propose musical performance as a kind of cognitive tool.

abacuses, musical instruments, or computers and the Internet, affect the potential for cognition and learning afforded by psychedelics?

Educational reformers often emphasize the need for a holistic approach to learning and development, criticizing mainstream schooling as being too rigidly focused on narrow cognitive domains, such as literacy and mathematics, and neglectful of non-intellectual orientations in learning. For example, Thomas Roberts proposes that conventional cognitive science and education largely fail to recognize that the human "mindbody" (his term for states of consciousness) is capable of a diversity of valences, and that non-ordinary ones may have value equal to or even more than the common awake state (2006). Howard Gardner's theory of multiple intelligences was based in part on his critique that an overweening emphasis on mathematical and linguistic kinds of intelligence in schools corresponds with a subtle deprecation of other kinds of intelligence (1983; 1999). By the same token, Kieran Egan's (1997) discussion of imaginative education postulates somatic understanding as the primordial form of human cognition upon which other subsequent types of understanding or intelligence build, but acknowledges that it is generally devalued in contemporary educational policy and practice. However, Egan's (1997) move to define education as a process of developing facility with cognitive tools suggests that we open ourselves up to ways of ways of fostering non-linguistic or non-mathematic types of intelligence or understanding. While Egan's proposal of somatic understanding as a foundational educational domain touches on this in a limited way, philosopher Richard Shusterman (1999; 2008) provides a much richer exploration of the concept. In previous work, I have explored how the theories of Gardner, Egan and Shusterman all provide, from within a Western frame of learning, a sound theoretical grounding for entheogenic education and conceiving of ayahuasca as a plant teacher, or a cognitive tool (Tupper, 2002a; 2002b; 2003). I will not recapitulate all of these ideas further here, but I do want to emphasize and elaborate on the importance of ritual as a crucial contextual element for ayahuasca drinking (and other entheogenic practices) as form of proto-harm reduction (MacRae, 2010, p. 196).

### 6.3 - Ritual & Harm Reduction

The use of ritual to enable non-ordinary or altered states of consciousness is an early and prototypical case of humans developing and perfecting a highly effective means of regulating

cognition (Winkelman, 2010). Ritual refers to special ordered and repetitious behaviour that sustains social meanings and organization (religious or secular), traditionally through a process of collective symbolic action and intergenerational education (Moore & Myerhoff, 1977; Hinde, 1999). Religious rituals and the transcendent experiences they can engender have been hypothesized to have functional evolutionary advantages for individuals and communities. For example, the theory of biogenetic structuralism posits ritual as "a subset of formalized behavior that involves two or more individuals in active and reciprocal communication and that (1) is structured; (2) is stereotyped and repetitive in occurrence over time; and (3) results in greater coordination of conspecifics toward some social action, purpose, or goal" (d'Aquili, Laughlin and McManus, 1979). This definition is purposefully broad enough to include geneticallyprogrammed behaviours in various non-human animal species, such as the mating rituals of birds or mammals. However, even limiting the discussion to human ritual requires acknowledging that it is a primordial specific behaviour that has physical, psychological and social adaptive benefits (Alacorta & Sosis, 2005; Boyer, 2001; McClenon, 1997). As Rappaport puts it, ritual is "the social act basic to humanity" (1999, p. 31, italics original). For humans, ritual behaviours may stimulate the parasympathetic components of the central nervous system, producing an integration or coordination of lower and higher (i.e., more or less evolutionarily primeval) brain systems (Winkelman, 2010). With respect to spirituality, ritual can affect the neural mechanisms—such as the temporal lobe—that evidence suggests is correlated with mystical or religious experience (Newberg, D'Aquili, & Rause, 2001). Presumably early adepts with techniques of ecstasy and shamanic trance states, including those involving entheogens such as ayahuasca or other psychoactive plants, learned through trial and error the value of ritual as a means of controlling or directing the powerful experiences produced by such practices.

The combination of psychoactive substance use and ritual might usefully be regarded as a form of proto-harm reduction, a means by which the risks inherent to the ingestion of certain kinds of substances are effectively mitigated through the deliberate and long-practiced manipulation of set and setting (Zinberg, 1984). Harm reduction is variously a philosophy, a policy orientation and a range of practices that focus on the prevention of avoidable harms from risky behaviours without an insistence on abstinence from such behaviours (International Harm Reduction Association, 2010). Harm reduction can be applied in many fields—from corrections to law

enforcement to education—but its origins are in the 1980s public health response to HIV transmission by syringe sharing (Des Jarlais, Friedman & Ward, 1993). As such, harm reduction is promoted as a medical and health-focused alternative to addressing behaviours that are commonly treated as moral or criminal issues. Although originally focused on injection drug use and the prevention of blood-borne pathogen transmission, harm reduction theory and practice have subsequently expanded their scope to include the uses of a wide variety of legal and illegal types of substances, including tobacco (Hall, 2005), alcohol (Marlatt & Witkiewitz, 2002; Stockwell, 2006), cannabis (Hathaway & Erickson, 2003; Swift, Copeland & Lenton, 2000), and psychedelics or entheogens. The harm reduction approach to psychedelic drug use at "rave" dance parties is akin to approaches taken towards reducing harms from injection drug use, although both the harms to be avoided or reduced and the populations at whom interventions are targeted may be quite different. Their salient commonality is the fact that the production, distribution and possession of the substances being consumed are illegal, which in turn spawns risks associated with taking substances of unknown dosage, purity and quality in settings that are often not conducive to optimal health outcomes.

One example of an explicitly harm reduction approach to psychedelic substance use today is the psychedelic emergency response ("psychedelic ER") support that has increasingly become a standard part of the organizational infrastructure at large, multi-day dance festivals such as Burning Man (Black Rock Desert, Nevada), the Boom Festival (Idanho-do-Nova, Portugal) and Shambhala (Salmo, British Columbia). In many respects, contemporary psychedelic ER stems from the free clinics and crisis support systems that were established as a peer-based response to the 1960s youth drug cultures in places such as San Francisco's Haight-Ashbury district (Smith, 1969), Berkeley, Los Angeles, and Cleveland (Weiss, 2006), at Vancouver's Cool-Aid House in Kitsilano (Aronsen, 2010, p. 26), and on the grounds of Hollywood Hospital in New Westminster, B.C. (Tom Hetherington, personal communication, October 2, 2010). New kinds of substances and evolving music sub-cultures ensured a continued popularity (and ultimately globalization) of psychedelic drug use by young people in informally structured contexts such as raves and festivals (Collin & Godfrey, 1997; Lyttle & Montagne, 1992; Nascimento, 2006; Thornton, 1996). Accordingly, harm reduction approaches to this kind of substance use also evolved in the 1990s and 2000s (Doyle, 2003; Karpetas, 2003; Michelow & Tupper, 2007). An

important common element that both early and more recent harm reduction approaches to psychedelics share is the adoption of an accepting approach by facilitators (usually volunteers, some with medical training) who engage, *in situ*, party-goers undergoing unexpected difficult experiences with psychoactive substances. Although largely secular, some facilitation techniques in these settings involve methods from clinical or counselling practices for working with people who may be undergoing what has been described as a "spiritual emergency" (Grof & Grof, 1989).

The use of psychedelics within modern electronic dance music cultures has been explored from the perspective of ritual or religious studies, with evidence suggesting that for some participants there is a significant spiritual or transcendent dimension to the dance party experience (St. John, 2004; St. John, 2006; Takahashi & Olaveson, 2003). Ritual theorist Victor Turner contends that rather than authentically transformative liminal experiences—which are characteristic of initiations, rites of passage, and other traditional ritual forms—modern Western culture provides only diminished forms, *liminoid* experiences, manifested in collective activities such as "carnivals, spectacles, major sports events, folk drama, national theatre, and so on" (1977, p. 44). Whether or how electronic music dance culture constitutes a *sui generis* spiritual practice for postmodern times is a question beyond the scope of the current discussion. Regardless, despite the best efforts of event promoters, staff and volunteers, the free-form nature of such large events makes it difficult to establish protective factors equivalent to those of more traditional ritualized substance use practices.

In contrast to modern dance parties, the cultural contexts that constitute traditional entheogenic rituals may be understood as designed not merely to reduce harms, but rather to maximize benefits (Tupper, 2008c). Although specifics may vary across cultures and at different times, there are commonalities to such ritual practices, including protocols for the substance itself (such as production, dosage, route of administration), the set (such as individual mental health, educational background, psychological preparation, and attitudes and beliefs), and the setting (such as place, time, leadership, other participants, ritual structures). Traditional entheogenic rituals within indigenous communities often share similarities akin to other kinds of rituals that do not involve the use of psychoactive substances. However, knowledge about how best to use

plants such as ayahuasca for spiritual development, physical or psychological healing, and social integration has arguably been achieved and optimized through countless iterations of intergenerational knowledge transmission. Such approaches to realizing the potential benefits of psychedelic drugs were attempted through innovative therapeutic techniques in the 1950s and 1960s. However, these were largely grounded in the psychotherapeutic modalities of Western clinical medicine rather than traditional indigenous cultural or spiritual practices. Quasi-religious uses were also attempted by some groups of psychedelic aficionados in the 1960s counterculture, but none seems to have lasted long (Fuller, 2000, p. 81), perhaps foundering on the discord between the prevailing hedonistic individualism of the era and the demands for conformity and discipline that rigorous spiritual practices typically demand.

Ralph Metzner contrasts the clinical context of psychedelic therapy with the ceremonial context of entheogenic healing or divination, both of which are structured not only to minimize risks and harms but also to derive maximum psychological or spiritual benefits (Metzner, 1998, pp. 336-337). 172 As Metzner describes, psychedelic therapy sessions and entheogenic ceremonial sessions both emphasize the need for an experienced, stable and healthy leader or guide, and they both hold set (i.e., intention) and setting (i.e., immediate environment) to be of primary importance. However, they also have significant distinguishing differences: the underlying explanatory paradigms of etiology, or the causes of malady or illness, and respective cures are quite different. Practitioners of psychedelic therapy usually take a psychotherapeutic approach to treatment, using the drug experience to elicit unconscious material during the session; entheogenic healers, on the other hand, often consider illness to be a manifestation of supernatural imbalance and draw upon spiritual forces to effect cures. Second, in shamanic entheogenic ceremonies there is often little or no talking among the participants, whereas psychedelic therapy can involve considerable communication between the therapist and client. Third, traditional entheogenic ceremonies are often conducted at night, in low light or darkness, which facilitates more vivid visions and is regarded as integral to the experience (although some psychedelic therapies may incorporate the use of blindfolds). Finally, performances of singing or chanting are customarily an intrinsic aspect of entheogenic divination rituals. This is especially so for most ayahuasca

<sup>&</sup>lt;sup>172</sup> For further elaboration on the theoretical distinction between psychedelic medicine and entheogenic healing, see Tupper (2009b).

traditions, in which music functions synergistically with various ritual uses of the brew. The ubiquitous element of music in ayahuasca drinking practices (Goulart, 2010; Hill, 1992; Katz & Dobkin de Rios, 1971; Labate & Pacheco, 2010; Luna, 1992; Shepherd, 2004; Rittner, 2007; Townsley, 1993), and the importance of its adjunct role in generating transcendent experiences characterized by emotions of wonder and awe, warrants further attention for the development or refinement of a theory of entheogenic education.

## 6.4 - Conclusion

Entheogenic education postulates that ritually-mediated psychedelic substance use can kindle emotions of wonder and awe, ignite mystical or similarly transcendental experiences, and in so doing fuel reflection and insights about the meaning of one's life, society and the cosmos. In this respect, the learning one can gain personally through the circumspect use of such substances may be considered intrinsically valuable, or important for its own sake. However, inasmuch as ceremonial ayahuasca drinking and other types of entheogenic practices may heuristically be understood as the deployment of largely unappreciated, yet powerful, cognitive tools ancient in the repertory of human cultural achievement, they are also extrinsically valuable. In this respect, the notion of entheogenic education supports the traditional indigenous conceptualization of ayahuasca as a plant teacher, and provides a basis for recommending first-hand experience with the brew as an important kind of knowledge, of which policy makers ought to avail themselves in order to make fully informed decisions about contemporary ayahuasca drinking practices. As I argue in conclusion, this suggestion is more than a helpful recommendation: it is perhaps closer to the articulation of a moral imperative.

While I have posited that ayahuasca and related drug policy questions are important contemporary human rights matters, I am the first to admit that global social justice and ecological sustainability in the early 21<sup>st</sup> century seem far more immediate and pressing political issues. However, they are all related; as Terence McKenna observed almost two decades ago:

The suppression of the natural human fascination with altered states of consciousness and the present perilous situation of all life on earth are intimately and causally connected. When we suppress access to shamanic ecstasy, we close off the refreshing waters of emotion that flow from having a deeply bonded, almost symbiotic relationship to the

earth. As a consequence, the maladaptive social styles that encourage overpopulation, resource mismanagement, and environmental toxification develop and maintain themselves. No culture on earth is as heavily narcotized as the industrial West in terms of being inured to the consequences of maladaptive behavior. We pursue a business-as-usual attitude in a surreal atmosphere of mounting crises and irreconcilable contradictions. (1992, p. xix)

Recognizing ayahuasca and other similar entheogenic substances as archaic cognitive tools, powerful technologies of the sacred that have been highly esteemed in traditional indigenous cultures, may be a crucial step towards overcoming some of the questionable notions of "progess" and "development" implicit in ethnocentric assumptions of modern Euroamerican cultural, economic and epistemic imperialism. Indeed, the dominant "development" narrative deserves to be challenged on the basis of whose voices it privileges or marginalizes, whose economic interests it directly serves, and what vision of ecological sustainability it pursues (Gonzales & Gonzales, 2010; Radcliffe, 2007; Shiva, 1989). For example, the notion of *sumak kawsay* or *sumaq kamaña* (or "good living," in the languages of the Andean Quechua and Aymara indigenous peoples, respectively) has recently been incorporated as the orienting concept of *buen vivir*, an alternative notion of public good, in the 2008 Constitution of Ecuador (Walsh, 2010). However, in order to counter prevailing modern attitudes about what constitutes progress, entheogens or psychedelics may be among the most effective tools that hold the promise of catalyzing a critical mass of awareness about the need for significant political and economic changes. 174

Modernity has not only generated disenchantment and dislocation as general psychological and social malaises, but has also produced the industrial capitalist engine and technocratic compass to drive simultaneously human population growth and resource distribution inequalities on a scale unprecedented in human evolutionary history. In turn, these broader features of the present

<sup>&</sup>lt;sup>173</sup> According to Walsh, "in its most general sense, buen vivir denotes, organizes, and constructs a system of knowledge and living based on the communion of humans and nature and on the spatial-temporal-harmonious totality of existence" (2010, p. 17).

<sup>&</sup>lt;sup>174</sup> The aphoristic assertion by African-American feminist author and activist Audre Lorde that "the master's tools will never dismantle the master's house" (1984, p. 112) likewise implies that outside-the-(cognitive tool)box thinking is necessary to enable genuine political change. Indeed, the reaction to the so-called "counter-culture" movement among Euroamerican youth in the 1960s suggests that authorities with vested interests in that era's military-industrial and economic status quo may have come to a similar realization, and believed that repression, criminalization, and demonization of psychedelic substances would help ensure that such potent alternatives to the "master's" tools were kept out of reach and out of mind.

human condition are contributing to the accelerating phenomena of resource depletion, climate change, species extinction, and accumulating anthropogenic waste. While this pattern of ecological change may be inconsequential in the larger planetary scheme of things (Lovelock, 2009), it does not bode well for the prospects of the modern human way of life predicated on cheap petroleum, neo-liberal free market economics, and neo-colonialism. The limits of the earth to sustain increasing numbers of resource-hungry modern humans and absorb the "externalities" generated by exponential population growth were first invoked by Thomas Malthus in the late 18<sup>th</sup> century, and more recently in the late 1960s and early 1970s in books such as *The Population Bomb* (Ehrlich, 1969), *Small is Beautiful* (Schumacher, 1973) and *The Limits to Growth* by the Club of Rome (Meadows, Meadows, Randers & Behrens, 1972). Since then, despite much greater public awareness of the issues at hand, ecological and economic sustainability seem little more than politically strategic rhetorical phrases. As Wade Davis suggests,

Our economic models are projections and arrows when they should be circles. To define perpetual growth on a finite planet as the sole measure of economic well-being is to engage in a form of slow collective suicide. To deny or exclude from the calculus of governance and economy the costs of violating the biological support systems of life is the logic of delusion. (2009, p. 217)

However, the economic growth imperative implicit in free-market capitalist ideology has so thoroughly captivated political leaders and the dominant modes of public discourse (i.e., the commercialized mass media) that the drivers of the global economic system appear unable to check themselves even in the face of impending catastrophic ecological limits. Although 20<sup>th</sup> century experiments with variations of Marxist or communist government did not provide examples of an economic alternative that met higher standards of material and ecological sustainability (with the possible exception of Cuba in the past several decades), not to mention basic standards of civil liberties and human rights, it is also apparent that late 20<sup>th</sup> century neoliberal proclamations of the triumph of capitalism and the "end of history" (Fukuyama, 1992) may have been premature. Rather, an ecologically-oriented perspective on the state of the world suggests that the unrestrained pursuit of industrial economic growth implicit in the modern political agenda amounts to a mass *folie à plusieurs*, whereby humans on planet Earth collectively display no more intelligence than paramecia in a petri dish.

Bruce Alexander (2008) identifies dislocation (and consequent endemic addiction) as one of the more predictable and ineluctable social outcomes of the free-market, neo-liberal capitalist ideology pervading institutions such as the modern state, public schools, the academy, and mass media. However, beyond its consequences for the social realm, this ideology is also causally implicated in climate change, peak oil, deforestation, desertification, water scarcity, food insecurity, and loss of biodiversity, phenomena that are arguably just as foreseeable, but which pose even more drastic consequences for much of the human population (Dyer, 2008; C. Hamilton, 2004; Jackson, 2009). With respect how to avoid complete social or ecological collapse, however, Alexander recognizes that the status quo "world view will not change until a galvanizing alternative philosophy appears, together with images, ceremonies, music and metaphysics that can give it life in human hearts and minds" (2008, p. 392). Yet, in the early 21<sup>st</sup> century, humanity seems paralyzed in a catch-22 situation: the economic and ecological policy changes for which sustainability advocates and other future-oriented voices are calling would require a radical political and cultural repudiation of the ubiquitous calculus of modern freemarket (and in the 20<sup>th</sup> century, debt-predicated) ideology, but any change in political decisions and cultural attitudes would require a radical shift in the economic and ecological conditions of daily life among those who have the power to make changes. How to overcome this sociopolitical impasse and leave our children and grandchildren a more socially, economically and ecologically just and sustainable world—or at the very least a habitable one—is perhaps the most important public policy and educational question of our time (Kahn, 2010; O'Sullivan, 1999; Seymour, 2004).

For much of the past few hundred years, the obvious and automatic response to any question of this kind would be to put it to the scientific experts. Yet, on what basis should the public have confidence in the ability of modern techno-science to generate solutions to the myriad problems that its disinterested pursuit of knowledge created in the first place? The shift from a mechanistic Newtonian cosmology towards complexity theory and its entailing ecological paradigm is an important start. However, as Brent Davis argues:

Complexity science asserts that our knowledge systems are rooted in our physical forms—and that those forms, in turn, are engaged in ongoing cyclings of matter with all

other living forms. Oriented by this realization, science has mounted a case against itself in the accumulation of evidence that many current personal, cultural, and planetary distresses can be traced to scientifically enabled human activities. It does not seem unreasonable to suggest that something other than an explanation-seeking scientific attitude is required for an effective response. Knowledge is useful here, but wisdom is needed. (2004, p. 156)

Immanuel Wallerstein invokes the same paradox in the domain of health by putting it even more personally:

if we have a high fever, we may seek advice and assistance. If we are not ready to take it from a physician-scientist, from whom are we ready to take it, and on what grounds? . . . The situation we all recognize ourselves to be in vis-á-vis medical advice may be the eternal human condition. We can never be sure of the experts, but it's unlikely we shall do much better by dispensing with them. (Wallerstein, 2004, p. 12)

Thus, the question may not be whether expertise *per se* needs to be dispensed with, but rather what kind of expertise—and, by extension, education—is needed for innovation and leadership in addressing the issues confronting humanity in the early 21<sup>st</sup> century. In this respect, the anthropocentric hubris characteristic of modern techno-scientific discourses stands in stark contrast to the humility about the limits of human knowledge and power that ayahuasca can engender (McKenna, 2005; Narby, 1998).

The goal of my articulation of the concept of entheogenic education is to provide a theoretical account of how practices such as ceremonial ayahuasca drinking might play an important role in providing an unexpected answer to Wallerstein's (2004) question about where else to seek and ground knowledge, in exemplifying an alternative to the "explanation-seeking scientific attitude" of which Davis (2004) is skeptical, and in catalyzing the kind of socially-integrative alternative philosophy to which Alexander (2008) alludes. Although the circumspect use of psychedelic or entheogenic substances on a wider scale may be neither a necessary nor a sufficient condition for bringing about the sweeping cultural changes demanded by the pressing economic and ecological issues of the early 21<sup>st</sup> century, it does offer a model for cognitive transformation grounded in longstanding traditions of various indigenous cultural practice and in the empirical findings of psychedelic studies in its nascent (1950s and 60s) and renaissance (post-1990s) phases. In order

to explore this possibility, however, a critical re-examination of contemporary drug policies is necessary, to which this dissertation is a small contribution.

Ayahuasca is an exemplar of traditional indigenous knowledge, an entheogenic practice that is a powerful means not only of healing and learning, but also of reliably fostering wonder and awe—primary emotional states that can imbue the world with meaning and value. Accordingly, ayahuasca's uptake among denizens of late-modern capitalist societies may help provoke an overdue re-enchantment, stimulating insight about the urgent need for changes in cultural, economic, and political thinking necessary to create a more equitable and sustainable world. However, the present international drug control regime, based on notions about psychoactive plants and substances that represent untenable vestiges of Euroamerican colonialism, is a major impediment to opening minds to such possibilities. Rather, both policy makers and the general public need to reconsider the drug war paradigm and the foundations for its categorical denial of the potential value of some kinds of non-medical, non-scientific psychoactive substance use. such as ayahuasca drinking and similar entheogenic practices. Despite its otherwise steadfast commitment to the drug war paradigm, the government of Canada made a step in this direction through a policy decision "in principle" to recommend granting Céu do Montreal a Section 56 exemption in the public interest. Time will tell whether this decision ultimately represents a movement towards a greater tolerance and appreciation for entheogenic educational practices and the wisdom plant teachers may offer.

## **Works Cited**

- Aaron, P., & Musto, D. (1981). Temperance and prohibition in America: A historical overview. In M. H. Moore & D. R. Gerstein (Eds.), *Alcohol and public policy: Beyond the shadow of prohibition* (pp. 127-181). Washington, D.C.: National Academy Press.
- Adams, E. W. (1937). *Drug addiction*. London: Oxford University Press.
- Adelaars, A. (2001). Court case in Holland against the use of ayahuasca by the Dutch Santo Daime Church [Electronic Version]. Retrieved from <a href="http://www.santodaime.org/community/news/2105">http://www.santodaime.org/community/news/2105</a> holland.htm
- Agurell, S., Holmstedt, B., & Lindgren, J. E. (1968). Alkaloid content of *Banisteriopsis rusbyana*. *American Journal of Pharmacy*, 140(5), 148-151.
- Ahern, J., Stuber, J., & Galea, S. (2007). Stigma, discrimination and the health of drug users. *Drug and Alcohol Dependence*, 88(2-3), 188-196.
- Aikenhead, G. S. (1997). Toward a First Nations cross-cultural science and technology curriculum. *Science Education*, 81(2), 217-238.
- Alcorta, C. S., & Sosis, R. (2005). Ritual, emotion, and sacred symbols: The evolution of religion as an adaptive complex. *Human Nature*, *16*(4), 323-359.
- Alderman, J., Dollar, K. M., & Kozlowski, L. T. (2010). Understanding the origins of anger, contempt, and disgust in public health policy disputes: Applying moral psychology to harm reduction debates. *Journal of Public Health Policy*, 31(1), 1-16.
- Alexander, B. K. (2008). *The globalisation of addiction: A study in the poverty of spirit*. Oxford: Oxford University Press.
- Althusser, L. (1971). Ideology and ideological state apparatuses (B. Brewster, Trans.). In L. Althusser (Ed.), *Lenin and philosophy and other essays*. London: Monthly Review Press. Retrieved from <a href="http://www.marxists.org/reference/archive/althusser/1970/ideology.htm">http://www.marxists.org/reference/archive/althusser/1970/ideology.htm</a>
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Washington, DC: American Psychiatric Association.
- Anderson, B. (1991). *Imagined communities: Reflections on the origin and spread of nationalism* (2nd ed.). London: Verso.
- Andreas, P., & Nadelmann, E. (2006). *Policing the globe: Criminalization and crime control in international relations*. Oxford: Oxford University Press.
- Andritzky, W. (1989). Sociopsychotherapeutic functions of ayahuasca healing in Amazonia. *Journal of Psychoactive Drugs*, 21(1), 77-89.

- Angell, M. (2004). The truth about the drug companies: How they deceive us and what to do about it. New York: Random House.
- Annan, K. (1998, June 8). Secretary-General calls on every nation to say 'no' to drugs, to say 'yes' to challenge of working towards drug-free world [Press release, SG/SM/6586 GA/9412, electronic version]. New York: United Nations. Retrieved from <a href="http://www.un.org/ga/20special/presrel/sgsm6586.htm">http://www.un.org/ga/20special/presrel/sgsm6586.htm</a>
- Annett, K. D. (Ed.). (2005). *Hidden from history the Canadian holocaust: The untold story of the genocide of Aboriginal peoples by church and state in Canada* (2nd ed.). Canada: The Truth Commission into Genocide in Canada.
- Anslinger, H. J. (1959). Colonel C.H.L. Sharman, C.M.G., C.B.E., I.S.O. [Electronic Version]. Retrieved from <a href="http://www.unodc.org/unodc/en/data-and-analysis/bulletin/bulletin\_1959-01-01">http://www.unodc.org/unodc/en/data-and-analysis/bulletin/bulletin\_1959-01-01</a> 4 page002.html
- Anthony, J. C., Warner, L. A., & Kessler, R. C. (1994). Comparative epidemiology of dependence on tobacco, alcohol, controlled substances, and inhalants: Basic findings from the National Comorbidity Survey. *Experimental and Clinical Psychopharmacology*, 2(3), 244-268.
- Apple, M. W. (2004). *Ideology and curriculum* (3rd ed.). New York: RoutledgeFalmer.
- Aronsen, L. (2010). *City of love and revolution: Vancouver in the sixties.* Vancouver: New Star Books.
- Au, W. (2007). Vygotsky and Lenin on learning: The parallel structures of individual and social development. *Science & Society*, 71(3), 273-298.
- Aytoun, E. (1956). *The penny universities: A history of the coffee-houses*. London: Secker & Warburg.
- Baashar, T. (1981). The use of drugs in the Islamic world. *British Journal of Addiction*, 76(3), 233-243.
- Badiner, A. H., & Grey, A. (Eds.). (2002). *Zig zag zen: Buddhism and psychedelics*. San Francisco, CA: Chronicle Books.
- Bailey, I. (2006, February 24). Health minister has his doubts about safe-injection sites. *Victoria Times-Colonist*. Retrieved from <a href="http://www.mapinc.org/drugnews/v06/n240/a06.html?show">http://www.mapinc.org/drugnews/v06/n240/a06.html?show</a>
- Bailey, L. (2005). Control and desire: The issue of identity in popular discourses of addiction. *Addiction Research and Theory*, 13(6), 535-543.

- Bakan, J. (2004). *The corporation: The pathological pursuit of profit and power*. Toronto: Penguin Canada.
- Ball, M. W. (Writer) (2009a, July 14). Jonathan Goldman and Santo Daime, Part 2 [Audio podcast]. In M. W. Ball (Producer), *The entheogenic evolution*. Ashland, OR. Retrieved from <a href="http://entheogenic.podomatic.com/entry/2009-07-14T12">http://entheogenic.podomatic.com/entry/2009-07-14T12</a> 17 54-07 00
- Ball, M. W. (Writer) (2009b, July 21). Jonathan Goldman and Santo Daime, Part 3 [Audio podcast]. In M. W. Ball (Producer), *The entheogenic evolution*. Ashland, OR. Retrieved from <a href="http://entheogenic.podomatic.com/entry/2009-07-21T12">http://entheogenic.podomatic.com/entry/2009-07-21T12</a> 31 37-07 00
- Ball, S. J. (1993). What is policy? Texts, trajectories and toolboxes. *Discourse*, 13(2), 10-17.
- Barbanoj, M. J., Riba, J., Clos, S., Giménez, S., Grasa, E., & Romero, S. (2008). Daytime ayahuasca administration modulates REM and slow-wave sleep in healthy volunteers. *Psychopharmacology* (Berl), *196*(2), 315-326.
- Barbosa, P. C. R., Giglio, J. S., & Dalgalarrondo, P. (2005). Altered states of consciousness and short-term psychological after-effects induced by the first time ritual use of ayahuasca in an urban context in Brazil. *Journal of Psychoactive Drugs*, *37*(2), 193-201.
- Barker, H. (2000). Newspapers, politics and English society, 1695-1855. New York: Longman.
- Barker, S. A., Monti, J. A., & Christian, S. T. (1981). N,N-Dimethyltryptamine: An endogenous hallucinogen. *International Review of Neurobiology*, 22, 83-110.
- Barrett, D. (2008). *Unique in international relations?: A comparison of the International Narcotics Control Board and the UN Human Rights Treaty bodies*. London: International Harm Reduction Association. Retrieved from <a href="http://www.ihra.net/files/2010/06/16/Barrett-UniqueinInternationalRelations.pdf">http://www.ihra.net/files/2010/06/16/Barrett-UniqueinInternationalRelations.pdf</a>
- Barrett, D., Lines, R., Schleifer, R., Elliott, R., & Bewley-Taylor, D. (2008). *Recalibrating the regime: The need for a human rights-based approach to international drug policy*. London: Beckley Foundation Drug Policy Program. Retrieved from <a href="http://www.beckleyfoundation.org/pdf/report\_13.pdf">http://www.beckleyfoundation.org/pdf/report\_13.pdf</a>
- Barroso, L. R. (1995). The saga of indigenous peoples in Brazil: Constitution, law and policies. *St. Thomas Law Review*, 7(3), 645-670.
- Battiste, M., & Henderson, J. Y. (2000). *Protecting indigenous knowledge and heritage: A global challenge*. Saskatoon, SK: Purich.
- Baucom, I. (2005). Specters of the Atlantic: Finance capital, slavery and the philosophy of history. Durham, NC: Duke University Press.
- Bauman, Z. (1993). Postmodern ethics. Cambridge, MA: Blackwell.

- B.A. Wells Healthcare Consulting, Inc. (2007, May 14). *An overview of the regulatory framework for controlled substances used to treat opioid dependence*. Unpublished report prepared for Health Canada.
- Beaman, L. G. (2003). The myth of pluralism, diversity and vigor: The constitutional privilege of protestantism in the United States and Canada. *Journal for the Scientific Study of Religion*, 42(3), 311-325.
- Beck, J. (1998). 100 years of "just say no" versus "just say know": Reevaluating drug education goals for the coming century. *Evaluation Review*, 22(1), 15-45.
- Becker, H. S. (1963). *Outsiders: Studies in the sociology of deviance*. New York: Free Press of Glencoe.
- Belfiore, E. (1986). Wine and catharsis of the emotions in Plato's Laws. *The Classical Quarterly*, 36(2), 421-437.
- Benet, S. (1975). Early diffusions and folk uses of hemp. In V. Rubin (Ed.), *Cannabis and culture* (pp. 39-49). The Hague: Mouton.
- Bennett, B. C. (1992). Hallucinogenic plants of the Shuar and related indigenous groups in Amazonian Ecuador and Peru. *Brittonia*, 22(4), 483-493.
- Berridge, V. (1995). AIDS, drugs, and history. In R. Porter & M. Teich (Eds.), *Drugs and narcotics in history* (pp. 187-198). Cambridge, UK: Cambridge University Press.
- Berridge, V. (1999). *Opium and the people: Opiate use and drug control policy in nineteenth and early twentieth century England*. London: Free Association Books.
- Berridge, V. (2008). History matters?: History's role in health policy-making. *Medical History*, 52(3), 311-326.
- Bertram, E., Blachman, M., Sharpe, K., & Andreas, P. (1996). Drug war politics: The price of denial. Berkeley, CA: University of California Press.
- Bewley-Taylor, D. R. (1999). *The United States and international drug control, 1909-1997*. New York: Pinter.
- Bewley-Taylor, D. R. (2003). Challenging the UN drug control conventions: Problems and possibilities. *International Journal of Drug Policy*, 14(2), 141-223.
- Bewley-Taylor, D. (2009). The 2009 Commission on Narcotic Drugs and its High Level Segment: More cracks in the Vienna consensus. *Drugs and Alcohol Today*, 9(2), 7-12.

- Beyer, J., Drummer, O. H., & Maurer, H. C. H. H. (2009). Herbal drugs of abuse. In K. G. Ramawat (Ed.), *Herbal drugs: Ethnomedicine to modern medicine* (pp. 353-367). Berlin: Springer-Verlag.
- Beyer, S. V. (2009). Singing to the plants: A guide to mestizo shamanism in the upper Amazon. Albuquerque, NM: University of New Mexico Press.
- Billig, M. (2003). Critical discourse analysis and the rhetoric of critique. In G. Weiss & R. Wodak (Eds.), *Critical discourse analysis: Theory and interdisciplinarity* (pp. 35-46). New York: Palgrave MacMillan.
- Blackman, S. (2004). *Chilling out: The cultural politics of substance consumption, youth and drug policy*. New York: Open University Press.
- Blair, H. W. (1888). *The temperance movement: Or, the conflict between man and alcohol.* Boston: William E. Smythe Company.
- Blaut, J. M. (1993). The colonizer's model of the world: Geographical diffusionism and Eurocentric history. New York: The Guildford Press.
- Blendon, R. J., & Young, J. T. (1998). The public and the war on illicit drugs. *Journal of the American Medical Association*, 279(11), 827-832.
- Bloor, T., & Bloor, M. (2004). *The functional analysis of English: A Hallidayan approach* (2nd ed.). London: Hodder Arnold.
- Boire, R. G. (2000). On cognitive liberty (part one). *Journal of Cognitive Liberties*, 1(1), 7-13.
- Boire, R. G. (2006). RGB on UDV vs USA: Notes on the hoasca Supreme Court decision. *MAPS Bulletin*, 16(1), 19-21.
- Bonenfant, H., & Bolsanello, D. (2003). Canada: The Uyunkar's sentence. Retrieved from: http://www.santodaime.org/community/news/canada.htm
- Borrell, L. N., Jacobs, D. R., Williams, D. R., Pletcher, M. J., Houston, T. K., & Kiefe, C. I. (2007). Self-reported racial discrimination and substance use in the Coronary Artery Risk Development in Adults Study. *American Journal of Epidemiology*, *166*(9), 1068-1079.
- Borst, A. G. (2010). Managing the crisis: James Frey's A Million Little Pieces and the addict-subject confession. *Cultural Critique*, 75, 148-176.
- Bouchard, G., & Taylor, C. (2008). Building the future: A time for reconciliation. Quebec City: Gouvernement du Québec. Retrieved from <a href="http://www.accommodements.qc.ca/documentation/rapports/rapport-final-integral-en.pdf">http://www.accommodements.qc.ca/documentation/rapports/rapport-final-integral-en.pdf</a>

- Bowers, C. A. (1993). *Education, cultural myths, and the ecological crisis: Toward deep changes*. Albany, NY: State University of New York Press.
- Boyd, N. (1991). High society: Legal and illegal drugs in Canada. Toronto: Key Porter Books.
- Boyd, S. C. (2004). From witches to crack moms: Women, drug laws and policy. Durham, NC: Carolina Academic Press.
- Boyd, S. C. (2007). Drug films, justice and nationhood. *Contemporary Justice Review*, 10(3), 263-282.
- Boyer, P. (2001). *Religion explained: The evolutionary origins of religious thought*. New York: Basic Books.
- Braudel, F. (1972). History and the social sciences: The *longue durée* (K. Folca, Trans.). In P. Burke (Ed.), *Economy and society in early modern Europe* (pp. 11-42). London: Routledge and Kegan Paul.
- Braudel, F. (1981, 1982, 1984). *Civilization and capitalism, 15th-18th century* (S. Reynolds, Trans. Vol. 1-3). London: Collins.
- Brennan, F., Carr, D. B., & Cousins, M. (2007). Pain management: A fundamental human right. *Anesthesia & Analgesia*, 105(1), 205-221.
- British Columbia Ministry of Health Services. (2010). *Healthy minds, healthy people: A ten-year plan to address mental health and substance use in British Columbia*. Victoria, BC: Author. Retrieved from <a href="http://www.health.gov.bc.ca/library/publications/year/2010/healthy\_minds\_healthy\_people\_.pdf">http://www.health.gov.bc.ca/library/publications/year/2010/healthy\_minds\_healthy\_people\_.pdf</a>
- Brown, E. H. (2008). *The web of debt: The shocking truth about our money system and how we can break free* (3rd ed.). Baton Rouge, LA: Third Millennium Press.
- Brown, J. B. (1973). Politics of the poppy: The Society for the Suppression of the Opium Trade. *Journal of Contemporary History*, 8(3), 97-111.
- Brown, J. H., & D'Emidio-Caston, M. (1995). On becoming "at risk" through drug education: How symbolic policies and their practices affect students. *Evaluation Review*, 19(4), 451-491.
- Brunton, D. (2004). The emergence of a modern profession? In D. Brunton (Ed.), *Medicine transformed: Health, disease and society in Europe, 1800-1930* (pp. 119-150). Manchester: The Open University.
- Bruun, K., Pan, L., & Rexed, I. (1975). *The gentleman's club: International control of drugs and alcohol*. Chicago: University of Chicago Press.

- Bullington, B. (2004). Drug policy reform and its detractors: The United States as the elephant in the closet. *Journal of Drug Issues*, *34*(3), 687-722.
- Bureau of Labor Statistics, U.S. Department of Labor. (2010). *Occupational Outlook Handbook,* 2010-11 Edition: Teachers—Postsecondary. Retrieved from <a href="http://www.bls.gov/oco/ocos066.htm">http://www.bls.gov/oco/ocos066.htm</a>
- Burr, V. (2003). Social constructionism (2nd ed.). London: Routledge.
- Burroughs, W. S., & Ginsberg, A. (1963). *The yage letters*. San Francisco, CA: City Lights Books.
- Calabrese, J. D. (2001). The Supreme Court versus peyote: Consciousness alteration, cultural psychiatry and the dilemma of contemporary subcultures. *Anthropology of Consciousness*, 12(2), 4-19.
- Callaway, J. C. (2005a). Various alkaloid profiles in decoctions of Banisteriopsis caapi. *Journal of Psychoactive Drugs*, 37(2), 151-155.
- Callaway, J. C. (2005b). Fast and slow metabolizers of Hoasca. *Journal of Psychoactive Drugs*, 37(2), 157-161.
- Callaway, J. C., Airaksinen, M. M., McKenna, D. J., Brito, G. S., & Grob, C. S. (1994). Platelet serotonin uptake sites increased in drinkers of ayahuasca. *Psychopharmacology*, *116*(3), 385-387.
- Callaway, J. C., & Grob, C. S. (1998). Ayahuasca preparations and serotonin reuptake inhibitors: A potential combination for severe adverse reactions. *Journal of Psychoactive Drugs*, 30(4), 367-369.
- Callaway, J. C., Grob, C. S., McKenna, D. J., Nichols, D. E., Shulgin, A., & Tupper, K. W. (2006). A demand for clarity regarding a case report on the ingestion of 5-methoxy-N,N-dimethyltryptamine (5-MeO-DMT) in an ayahuasca preparation. *Journal of Analytical Toxicology*, *30*(6), 406-407.
- 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, 243-256.
- Callaway, J. C., Raymon, L. P., Hearn, W. L., McKenna, D. J., Grob, C. S., Brito, G. S., et al. (1996). Quantitation of N,N-dimethyltryptamine and harmala alkaloids in human plasma after oral dosing with ayahuasca. *Journal of Analytical Toxicology*, 20(6), 492-497.
- Campbell, M. B. (1999). *Wonder and science: Imaginings worlds in early modern Europe*. Ithaca, NY: Cornell University Press.

- Campbell, S. (2010, April 17). Enhanced mysticism, perception and cognition of psychedelic states of consciousness: Assessment of a new questionnaire. Paper presented at the MAPS Psychedelic Science in the 21<sup>st</sup> Century Conference, San Jose, CA. Retrieved from <a href="http://www.maps.org/videos/source4/video10.html">http://www.maps.org/videos/source4/video10.html</a>
- Carneiro, R. L. (1980). Chimera of the Upper Amazon. In R. De Mille (Ed.), *The Don Juan papers: Further Castaneda controversies*. Santa Barbara, CA: Ross-Erikson.
- Carstairs, C. (1999). Deporting "Ah Sin" to save the white race: Moral panic, racialization, and the extension of Canadian drug laws in the 1920s. *Canadian Bulletin of Medical History*, 16, 65-88.
- Carstairs, C. (2005). The stages of the international drug control system. *Drug and Alcohol Review*, 24(1), 57-65.
- Carstairs, C. (2006). *Jailed for possession: Illegal drug use, regulation and power in Canada,* 1920-1961. Toronto: University of Toronto Press.
- Casswell, S., & Thamarangsi, T. (2009). Reducing harm from alcohol: Call to action. *The Lancet*, 373(9682), 2247-2257.
- Casteneda, C. (1968). *The teachings of Don Juan: A Yaqui way of knowledge*. Los Angeles, CA: University of California Press.
- Caulkins, J., Rydell, P., Everingham, S., Chiesa, J., & Bushway, S. (1999). *An ounce of prevention: A pound of uncertainty*. Santa Monica, CA: Drug Policy Research Centre, Rand Corporation.
- Cayley, D. (Producer) (2009, January-June). *How to think about science* [Radio broadcast series]. Toronto Canadian Broadcasting Corporation.
- Cayley, D. (Producer) (2010, April-June). *The origins of the modern public* [Radio broadcast series]. Toronto: Canadian Broadcasting Corporation.
- Centre for Addictions Research of BC. (2008). Information on the price and availability of drugs in Victoria and Vancouver. Retrieved from: http://carbc.ca/Portals/0/AOD/HR/Price%20and%20Availability%20Compressed.jpg
- Chen, T. T., & Winder, A. E. (1990). The opium wars revisited as US forces tobacco exports in Asia. *American Journal of Public Health*, 80(6), 659-662.
- Cherny, N. I., Baselga, J., de Conno, F., & Radbruch, L. (2010). Formulary availability and regulatory barriers to accessibility of opioids for cancer pain in Europe: a report from the ESMO/EAPC Opioid Policy Initiative. *Annals of Oncology*, *21*(3), 615-626.

- Chettleburgh, M. C. (2007). *Young thugs: Inside the dangerous world of Canadian street gangs*. Toronto: HarperCollins.
- Chwelos, N., Blewett, D. B., Smith, C. M., & Hoffer, A. (1959). Use of d-lysergic acid diethylamide in the treatment of alcoholism. *Quarterly Journal of Studies on Alcohol*, 20, 577-590.
- Clark, A. (2004). Towards a science of the bio-technological mind. In B. Gorayska & J. L. Mey (Eds.), *Cognition and technology: Co-existence, convergence, and co-evolution* (pp. 25-36). Amsterdam: John Benjamins Publishing Co.
- Cohen, A. B., Gruber, J., & Keltner, D. (2010). Comparing spiritual transformations and experiences of profound beauty. *Psychology of Religion and Spirituality*, 2(3), 127-135.
- Cohen, J. (1996). Drug education: politics, propaganda and censorship. *International Journal of Drug Policy*, 7(3), 153-157.
- Cohen, M. M. (2006). Jim Crow's drug war: Race, Coca Cola, and the southern origins of drug prohibition. *Southern Cultures*, 12(3), 55-79.
- Cohen, P. D. A. (2000). Is the addiction doctor the voodoo priest of western man? *Addiction Research*, 8(6), 589-598.
- Cohen, P. (2003). The drug prohibition church and the adventure of reformation. *International Journal of Drug Policy*, 14(2), 213-215.
- Colberg, S. (2010, July 12). 'Digital drugs' at Mustang High School have experts warning of slippery slope [Electronic Version]. *NewsOK*. Retrieved from <a href="http://newsok.com/digital-drugs-at-mustang-high-school-have-experts-warning-of-slippery-slope/article/3475464.Wired.com#ixzz0tmRa3SaB">http://newsok.com/digital-drugs-at-mustang-high-school-have-experts-warning-of-slippery-slope/article/3475464.Wired.com#ixzz0tmRa3SaB</a>
- Cole, M., & Engeström, Y. (1993). A cultural-historical approach to distributed cognition. In G. Salomon (Ed.), *Distributed cognitions: Psychological and educational considerations* (pp. 1-46). New York: Cambridge University Press.
- Colebatch, H. K. (2002). Policy (2nd ed.). Buckingham, UK: Open University Press.
- Collin, M., & Godfrey, J. (1997). *Altered state: The story of ecstasy culture and acid house*. London: Serpent's Tail.
- Conboy, J. R. (2000). Smoke screen: America's drug policy and medical marijuana. *Food and Drug Law Journal*, *55*(4), 601-617.
- Coomber, R. (2006). *Pusher myths: Re-situating the drug dealer*. London: Free Association Books.

- Coomber, R., & South, N. (Eds.). (2004). *Drug use and cultural contexts 'beyond the West': Tradition, change and post-colonialism*. UK: Free Association Books.
- Cope, S. R. (1978). The stock exchange revisited: A new look at the market in securities in London in the eighteenth century. *Economica*, 45(177), 1-21.
- Costa, B. (2007). On the pharmacological properties of  $\Delta^9$ -tetrahydrocannabinol (THC). *Chemistry & Biodiversity*, 4(8), 1664-1677.
- Courtwright, D. T. (2005). Mr. ATOD's wild ride: What do alcohol, tobacco, and other drugs have in common? *The Social History of Alcohol and Drugs*, 20, 105-140.
- Coyote, D. (2010, April 17). *Waking up together: The intertwining of Buddhism and ayahuasca*. Paper presented at the MAPS Psychedelic Science in the 21st Century Conference, San Jose, CA. Retrieved from <a href="http://www.maps.org/videos/source3/video10.html">http://www.maps.org/videos/source3/video10.html</a>
- Creedon, J. (2001, September/October). Ayahuasca: Sacred tea from the Amazon. *Utne Reader*, 56-60.
- Cribb, A. (1986). Politics and health in the school curriculum. In S. Rodmell & A. Watt (Eds.), *The politics of health education: Raising the issues* (pp. 100-120). London: Routledge & Kegan Paul.
- Csete, J., & Wolfe, D. (2007). *Closed to reason: The International Narcotics Control Board and HIV/AIDS*. Toronto/New York: Canadian HIV/AIDS Legal Network & Open Society Institute. Retrieved from <a href="http://www.biomedcentral.com/content/supplementary/1477-7517-4-13-S1.pdf">http://www.biomedcentral.com/content/supplementary/1477-7517-4-13-S1.pdf</a>
- Cuijpers, P. (2002). Effective ingredients of school-based drug prevention programs: A systematic review. *Addictive Behaviors*, 27(6), 1009-1023.
- Cutler, F., & Matthews, J. S. (2005). The challenge of municipal voting: Vancouver 2002. *Canadian Journal of Political Science*, 38(2), 359-383.
- D'Alviella, G. (1981). The mysteries of Eleusis: The secret rites and rituals of the classical Greek mystery tradition. Wellingborough, UK: The Aquarian Press.
- d'Aquili, E. G., Laughlin, C. D., & McManus, J. (1979). *The spectrum of ritual: A biogenetic structural analysis*. New York: Columbia University Press.
- Da Silveira, D. X., Grob, C. S., Rios, M. D. d., Lopez, E., Alonso, L. K., Tacla, C., et al. (2005). Ayahuasca in adolescence: A preliminary psychiatric assessment. *Journal Of Psychoactive Drugs*, *37*(2), 129-133.
- Daston, L., & Park, K. (1998). Wonders and the order of nature 1150-1750. New York: Zone Books.

- Davenport-Hines, R. (2001). *The pursuit of oblivion: A global history of narcotics 1500-2000*. London: Weidenfeld & Nicolson.
- Davidov, V. M. (2010). Shamans and shams: The discursive effects of ethnotourism in Ecuador. *The Journal of Latin American and Caribbean Anthropology*, *15*(2), 387-410.
- Davies, J. B. (1997). *Drugspeak: The analysis of drug discourse*. Amsterdam: Harwood Academic Publishers.
- Davis, B. (2004). *Inventions of teaching: A genealogy*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Davis, E. (1998). *Techgnosis: Myth, magic and mysticism in the age of information*. New York: Harmony Books.
- Davis, M. (2007, October 29). Presentation on the SIS at the Dr. Peter Centre. In G. Maxwell (Chair), Can the federal government close Insite: What are the legal and ethical Issues?. Symposium conducted by Keeping the Door Open: Dialogues on Drug Use, Vancouver, British Columbia.
- Davis, W. (1996). *One river: Explorations and discoveries in the Amazon rain forest*. New York: Simon & Schuster.
- Davis, W. (2009). *The wayfinders: Why ancient wisdom matters in the modern world*. Toronto: House of Anansi Press.
- Dawson, A. (2008). Religious identity and millenarian belief in Santo Daime. In A. Day (Ed.), *Religion and the individual: Belief, practice, identity* (pp. 183-196). Burlington, VT: Ashgate. Retrieved from <a href="http://www.neip.info/html/objects/\_downloadblob.php?cod\_blob=533">http://www.neip.info/html/objects/\_downloadblob.php?cod\_blob=533</a>
- Dawson, A. (2010). Forward. In B. C. Labate & E. MacRae (Eds.), *Ayahuasca, ritual and religion in Brazil* (pp. xv-xvi). London: Equinox.
- Day, S., & Brodsky, G. (1996). The duty to accommodate: Who will benefit? *Canadian Bar Review*, 75(3), 433-473.
- DeBeck, K., Wood, E., Montaner, J., & Kerr, T. (2006). Canada's 2003 renewed drug strategy—an evidence-based review. *HIV/AIDS Policy & Law Review*, *11*(2/3), 1, 5-11.
- DeBeck, K., Wood, E., Montaner, J., & Kerr, T. (2009). Canada's new federal 'National Anti-Drug Strategy': An informal audit of reported funding allocation. *International Journal of Drug Policy*, 20(2), 188-191.

- Demange, F. (2002). Amazonian vegetalismo: A study of the healing power of chants in Tarapoto, Peru. Unpublished Masters thesis, University of East London, London, UK.
- de Mille, R. (Ed.). (1990). *The Don Juan papers: Further Castaneda controversies*. Belmont, CA: Wadsworth Publishing Company.
- Department of Justice Canada. (2007). *Controlled Drugs and Substances Act*. Retrieved from: http://laws.justice.gc.ca/PDF/Regulation/S/SOR-97-234.pdf
- der Mardersian, A., Pinkley, H. V., & Dobbins, M. F. (1968). Native use and occurence of N,N-dimethyltryptamine in the leaves of *Banisteriopsis rusbyana*. *American Journal of Pharmacy*, *140*, 137-147.
- de Saussure, F. (1966). *Course in General Linguistics* (W. Baskin, Trans.). New York: McGraw Hill.
- Des Jarlais, C. W. (2008). Western structures meet native traditions: The interfaces of educational cultures. Charlotte, NC: Information Age Pub.
- Des Jarlais, D. C., Friedman, S. R., & Ward, T. P. (1993). Harm reduction: A public health response to the AIDS epidemic among injecting drug users. *Annual Review of Public Health*, 14, 413-450.
- Dikötter, F., Laaman, L., & Xun, Z. (2004). *Narcotic culture: a history of drugs in China*. London: C. Hurst.
- Dillinger, T. L., Barriga, P., Escárcega, S., Jimenez, M., Lowe, D. S., & Grivetti, L. E. (2000). Food of the gods: Cure for humanity? A cultural history of the medicinal and ritual use of chocolate. *Journal of Nutrition*, *130*, 2057S-2072S.
- Dobkin de Rios, M. (1972). *Visionary vine: Psychedelic healing in the Peruvian Amazon*. San Francisco, CA: Chandler Publishing Co.
- Dobkin de Rios, M. (1973). Curing with ayahuasca in an urban slum. In M. Harner (Ed.), *Hallucinogens and Shamanism* (pp. 67-85). Oxford: Oxford University Press.
- Dobkin de Rios, M. (1984). *Hallucinogens: Cross-cultural perspectives*. Albequerque, NM: University of New Mexico Press.
- Dobkin de Rios, M. (1994). Drug tourism in the Amazon. *Anthropology of Consciousness*, *5*(1), 16-19.
- Dobkin de Rios, M. (1996). Commentary on "Human pharmacology of Hoasca": A medical anthropological perspective. *The Journal of Nervous and Mental Disease*, 184(2), 95-98.

- Dobkin de Rios, M. (2005). Interview with Guillermo Arrévalo, a Shipibo urban shaman, by Roger Rumrrill. *Journal of Psychoactive Drugs*, *37*(2), 203-207.
- Dobkin de Rios, M. (2006). Mea culpa: Drug tourism and the anthropologist's responsibility. *Anthropology News*, 47(7), 20.
- Dobkin de Rios, M., & Grob, C. S. (2005). Interview with Jeffrey Bronfman, representative *mestre* for the União do Vegetal Church in the United States. *Journal of Psychoactive Drugs*, *37*(2), 189-191.
- Dobkin de Rios, M., Grob, C. S., & Baker, J. R. (2005). Hallucinogens and redemption. *Journal of Psychoactive Drugs*, 37(2), 239-248.
- 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.
- Dobkin de Rios, M., & Janiger, O. (2003). *LSD, spirituality and the creative process*. Rochester, VT: Park Street Press.
- Dobkin de Rios, M., & Katz, F. (1975). Some relationships between music and hallucinogenic ritual: The "jungle gym" in consciousness. *Ethos*, *3*(1), 64-76.
- Dobkin de Rios, M., & Rumrrill, R. (2008). A hallucinogenic tea, laced with controversy: Ayahuasca in the Amazon and the United States. Westport, CT: Praeger.
- Doblin, R. (1991). Pahnke's "Good Friday experiment": A long-term follow-up and methodological critique. *Journal of Transpersonal Psychology*, 23, 1-28.
- Dodds, E. R. (1951). *The Greeks and the irrational*. Berkeley, CA: University of California Press.
- Doering-Silveira, E., Grob, C. S., Rios, M. D. d., Enrique Lopez, Luisa K. Alonso, Cristiane Tacla, 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.
- Donald, M. (1991). *Origins of the modern mind: Three stages in the evolution of culture and cognition*. Cambridge, MA: Harvard University Press.
- Donlon, P. T. (1971). The psychedelic plague and polypsychotropia. *Journal of the American Medical Association*, 215(3), 475-476.

- Doyle, B. (2003). Lending a hand at Burning Man: Psychedelic emergency services in the Black Rock Desert. *MAPS Bulletin*, *13*(2), 28-31. Retrieved from <a href="http://www.maps.org/news-letters/v13n2/13228doy.pdf">http://www.maps.org/news-letters/v13n2/13228doy.pdf</a>
- Dubé, F. (2003a, April 25). Woman dies in healing ritual; shaman guilty. National Post.
- Dubé, F. (2003b, April 26). Shaman barred from using ayahuasca following woman's death. *National Post*.
- Dudley, R. (2002). Fermenting fruit and the historical ecology of alcohol ingestion: Is alcoholism in modern humans an evolutionary hangover? *Addiction*, *97*(4), 381-388.
- Duke, J. A., Aulik, D., & Plowman, T. (1975). Nutritional value of coca. *Botanical Museum Leaflets*, 24, 11-119.
- Durrant, R., & Thakker, J. (2003). Substance use and abuse: Cultural and historical perspectives. London: Sage Publications.
- Dyck, E. (2005). Flashback: Psychiatric experimentation with LSD in historical perspective. *Canadian Journal of Psychiatry*, *50*(7), 381-388.
- Dyck, E. (2006). 'Hitting highs at rock bottom': LSD treatment for alcoholism, 1950–1970. *Social History of Medicine*, *19*(2), 313-329.
- Dyer, G. (2008). Climate wars. Toronto: Random House Canada.
- Eckersley, R. M. (2005). 'Cultural fraud': The role of culture in drug abuse. *Drug and Alcohol Review*, 24(2), 157-163.
- Egan, K. (1992). *Imagination in teaching and learning: The middle school years*. Chicago: University of Chicago Press.
- Egan, K. (1997). *The educated mind: How cognitive tools shape our understanding*. Chicago: University of Chicago Press.
- Egan, K. (2002). Getting it wrong from the beginning: Our progressivist inheritance from Herbert Spencer, John Dewey, and Jean Piaget. New Haven, CT: Yale University Press.
- Egan, K. (2008). *The future of education: Reimagining our schools from the ground up*. New Haven, CT: Yale University Press.
- Egans, R. D., & Hawkes, G. (2010). Childhood sexuality, normalization and the social hygiene movement in the Anglophone west, 1900-1935. *Social History of Medicine*, 23(1), 56-78.
- Ehrlich, P. (1968). The population bomb. New York: Ballantine Books.

- Eliade, M. (1964). *Shamanism: Archaic techniques of ecstasy* (W. R. Trask, Trans.). New York: Pantheon Books.
- Eliade, M. (1978). A history of religious ideas: From the stone age to the Eleusinian mysteries (Vol. 1). Chicago, IL: University of Chicago Press.
- Ellwood, R. S. (1994). *The sixties spiritual awakening: American religion moving from modern to postmodern*. New Brunswick, NJ: Rutgers University Press.
- Emboden, W. (1977). Dionysus as a shaman and wine as a magical drug. *Journal of Psychedelic Drugs*, 9(3), 187-192.
- Erickson, P. G. (1998). Neglected and rejected: A case study of the impact of social research on Canadian drug policy. *The Canadian Journal of Sociology*, 23(2/3), 263-280.
- Erowid. (2005, May 5). France controls ayahuasca plants & chemicals [Electronic Version]. Retrieved from <a href="http://www.erowid.org/chemicals/ayahuasca/ayahuasca\_law21.shtml">http://www.erowid.org/chemicals/ayahuasca/ayahuasca\_law21.shtml</a>
- Erskine, M. (2003). Ecuadorian healers see day in court [Electronic Version]. *Manitoulin Expositor*. Retrieved from: <a href="http://www.manitoulin.ca/Expositor/oldfiles/apr30">http://www.manitoulin.ca/Expositor/oldfiles/apr30</a> 2003.htm
- Escohotado, A. (1999). A brief history of drugs: From the stone age to the stoned age (K. A. Symington, Trans.). Rochester, VT: Park Street Press.
- Escohotado, A. *The general history of drugs* (G. W. Robinette, Trans., Vol. 1). Valparaiso, Chile: Graffiti Militante Press.
- Estrada, Á. (1981). *María Sabina: Her life and chants*. (H. Munn, Trans.). Santa Barbara, CA: Ross-Erikson.
- Ewen, S. (1976). *Captains of consciousness: Advertising and the social roots of the consumer culture*. New York: McGraw-Hill.
- 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.
- Fairclough, N. (1992). Discourse and social change. Cambridge: Polity Press.
- Fairclough, N., & Wodak, R. (1997). Critical discourse analysis. In T. A. v. Dijk (Ed.), *Discourse as social interaction: A multidisciplinary introduction* (pp. 258-284). London: Sage.
- Farrell, G. (1998). A global empirical review of drug crop eradication and United Nations' crop substitution and alternative development strategies. *Journal of Drug Issues*, 28(2), 395-436.

- Fay, B. (1996). Contemporary philosophy of social science: A multicultural approach. Malden, MA: Blackwell Publishers.
- Ferentzy, P. (2001). From sin to disease: Differences and similarities between past and current conceptions of chronic drunkenness. *Contemporary Drug Problems*, 28(3), 363-389.
- Fields, G. (2009, May 14). White House czar calls for end to 'war on drugs' [Electronic Version]. *The Wall Street Journal*. Retrieved from <a href="http://online.wsj.com/article/SB124225891527617397.html">http://online.wsj.com/article/SB124225891527617397.html</a>
- Fikes, J. C. (1993). *Carlos Castaneda, academic opportunism and the psychedelic sixties*. Victoria, BC: Millenia Press.
- Fischer, B., Erikson, P. G., & Smart, R. (1996). New Canadian drug law: One step forward, two steps backward. *International Journal of Drug Policy*, 7(3), 172-179.
- Fischer, F. (2003). *Reframing public policy: Discursive politics and deliberative practices*. Oxford: Oxford University Press.
- Fisher, P. (1998). *Wonder, the rainbow, and the aesthetics of rare experiences*. Cambridge, MA: Harvard University Press.
- Fontanilla, D., Johannessen, M., Hajipour, A. R., Cozzi, N. V., Jackson, M. B., & Ruoho, A. E. (2009). The hallucinogen *N*,*N*-dimethyltryptamine (DMT) is an endogenous sigma-1 receptor regulator. *Science*, *323*(5916), 934-937.
- Forbes, D. (2000, January 13). Prime time propaganda: How the White House secretly hooked network TV on its anti-drug message [Electronic Version]. *Salon.com*. Retrieved from <a href="http://dir.salon.com/news/feature/2000/01/13/drugs/index.html">http://dir.salon.com/news/feature/2000/01/13/drugs/index.html</a>
- Fotiou, E. (2010). Encounters with sorcery: An ethnographer's account. *Anthropology and Humanism*, *35*(1), 192-203.
- Foucault, M. (1972). *The archaeology of knowledge*. (A. M. S. Smith, Trans.). New York: Pantheon Books.
- Foucault, M. (1980). *Power/knowledge: Selected interviews and other writings, 1972-1977* (C. Gordon, L. Marshall, J. Mepham & K. Soper, Trans.). New York Pantheon Books.
- Foucault, M. (1981). The order of discourse. In R. Young (Ed.), *Untying the text: A post-structuralist reader* (pp. 48-78). Boston: Routledge & Kegan Paul.
- Foucault, M. (1984). What is enlightenment? In P. Rabinow (Ed.), *The Foucault reader* (pp. 32-50). New York: Pantheon Books.

- Foucault, M. (1991). Politics and the study of discourse. In G. Burchill, C. Gordon & P. Miller (Eds.), *The Foucault effect: Studies in governmentality* (pp. 53-72). London: Harvester Wheatsheaf.
- Foucault, M. (1997). The politics of truth. New York: Semiotext(e).
- Fowles, R., & Merva, M. (1996). Wage inequality and criminal activity: An extreme bounds analysis for the United States, 1975-1990. *Criminology*, 34(2), 136-182.
- Frances, A. (2009, June 26). A warning sign on the road to DSM-IV: Beware of its unintended consequences [Electronic Version]. *Psychiatric Times*, *26*(8). Retrieved from: <a href="http://www.psychiatrictimes.com/dsm-5/content/article/10168/1425378">http://www.psychiatrictimes.com/dsm-5/content/article/10168/1425378</a>
- Francis, D. (1997). *National dreams: Myth, memory and Canadian history*. Vancouver, BC: Arsenal Pulp Press.
- Fraser, N. (1990). Rethinking the public sphere: A contribution to the critique of actually existing democracy. *Social Text*, 25/26, 56-80.
- Friedland, M. L. (2002). *The University of Toronto: A history*. Toronto: University of Toronto Press.
- Friedman, S. R. (1998). The political economy of drug-user scapegoating—and the philosophy and politics of resistance. *Drugs: Education, prevention and policy*, *5*(1), 15-32.
- Fukuyama, F. (1992). The end of history and the last man. New York: Free Press.
- Fuller, S. (2006). The philosophy of science and technology studies. New York: Routledge.
- Furst, P. T. (1976). *Hallucinogens and culture*. San Francisco, CA: Chandler & Sharp.
- Gable, R. S. (2006). The toxicity of recreational drugs. *American Scientist*, 94(3), 206-208.
- Gagliano, J. A. (1994). *Coca prohibition in Peru: The historical debates*. Tucson, AZ: University of Arizona Press.
- Gajdamaschko, N. (2005). Vygotsky on imagination: Why an understanding of the imagination is an important issue for schoolteachers. *Teaching Education*, *16*(1), 13-22.
- Gale, T. (1999). Policy trajectories: Treading the discursive path of policy analysis. *Discourse*, 20(3), 393-407.
- Gandhi, A. G., Murphy-Graham, E., Petrosino, A., Chrismer, S. S., & Weiss, C. H. (2007). The devil is in the details: Examining the evidence for "proven" school-based drug abuse prevention programs. *Evaluation Review*, *31*(1), 43-74.

- Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books.
- Gardner, H. (1999). Are there any additional intelligences? In J. Kane (Ed.), *Education*, *information*, *transformation*: *Essays on learning and thinking* (pp. 111-131). Upper Saddle River, NJ: Prentice-Hall.
- Gartry, C. C., Oviedo-Joekes, E., Laliberte, N., & Schechter, M. T. (2009). NAOMI: The trials and tribulations of implementing a heroin assisted treatment study in North America. *Harm Reduction Journal*, 6(2). Retrieved from: <a href="http://www.harmreductionjournal.com/content/6/1/2">http://www.harmreductionjournal.com/content/6/1/2</a>
- Gately, I. (2001). *Tobacco: A cultural history of how an exotic plant seduced civilization*. New York: Grove Press.
- Gaukroger, S. (2006). The emergence of a scientific culture: Science and the shaping of modernity, 1210-1685. Oxford: Oxford University Press.
- Geddes, J. (2010, August 20). RCMP and the truth about safe injection sites [Electronic Version]. *Maclean's*. Retrieved from <a href="http://www2.macleans.ca/2010/08/20/injecting-truth/">http://www2.macleans.ca/2010/08/20/injecting-truth/</a>
- Geertz, C. (1983). *Local knowledge: Further essays in interpretive anthropology*. New York: Basic Books.
- Gestrich, A. (2006). The public sphere and the Habermas debate. *German History*, 24(3), 413-430.
- Giffen, P. J., Endicott, S., & Lambert, S. (1991). *Panic and indifference: The politics of Canada's drug laws*. Ottawa: Canadian Centre on Substance Abuse.
- Gillespie, N. A., Neale, M. C., Prescott, C. A., Aggen, S. H., & Kendler, K. S. (2007). Factor and item-response analysis DSM-IV criteria for abuse of and dependence on cannabis, cocaine, hallucinogens, sedatives, stimulants and opioids. *Addiction*, 102(6), 920-930.
- Gilmore, N. (1995). Drug use and human rights: Privacy, vulnerability, disability, and human rights infringements. *Journal of Contemporary Health Law and Policy*, *12*, 355-448.
- Gitlin, T. (1990). On drugs and mass media in America's consumer society. In H. Resnik (Ed.), *Youth and drugs: Society's mixed messages* (pp. 31-52). Rockville, MD: US Department of Health and Human Services, Office of Substance Abuse Prevention.
- Glenny, M. (2008). *McMafia: A journey through the global criminal underworld*. Toronto: House of Anansi Press.
- Goldberg, T. (1999). *Demystifying drugs: A psychosocial perspective*. New York: St. Martin's Press.

- Gonzales, T., & Gonzales, M. (2010). From colonial encounter to decolonizing encounters. Culture and nature seen from the Andean cosmovision of ever: The nurturance of life as a whole. In S. Pilgrim & J. Pretty (Eds.), *Nature and culture: Rebuilding lost connections* (pp. 83-102). London: Earthscan.
- Gonzales v. O Centro Espirita Beneficente Uniao do Vegetal. (2006, February 21). 546 U. S. \_ (2006). Retreived from http://www.udvusa.com/pdf/SupremeCourtDecision.pdf
- Goode, E., & Ben-Yehuda, N. (1994). Moral panics: Culture, politics, and social construction. *Annual Review of Sociology*, 20(1), 149-171.
- Goodman, F. D. (1988). *Ecstasy, ritual, and altered reality: Religion in a pluralistic world.* Bloomington, IN: Indiana University Press.
- Goodman, J. (1993). Tobacco in history: The cultures of dependence. New York: Routledge.
- Goodman, J. (2007). Excitantia: Or, how enlightenment Europe took to soft drugs. In J. Goodman, P. E. Lovejoy & A. Sherratt (Eds.), *Consuming habits: Global and historical perspectives on how cultures define drugs* (2nd ed., pp. 121-141). New York: Routledge.
- Goody, J. (1987). *The interface between the written and the oral*. New York: Cambridge University Press.
- Gossop, M. (2007). Living with drugs (6th ed.). Brookfield, VT: Ashgate.
- Götz, I. L. (1972). *The psychedelic teacher: Drugs, mysticism, and schools*. Philadelphia, PA: Westminster Press.
- Goulart, S. L. (2010). Religious matrices of the União do Vegetal. In B. C. Labate & E. MacRae (Eds.), *Ayahuasca, ritual and religion in Brazil* (pp. 107-133). London: Equinox.
- Gow, P. (2001). An Amazonian myth and its history. Oxford: Oxford University Press.
- Graham-Mulhall, S. (1926). *Opium the demon flower*. New York: Montrose.
- Grant, B. F., Dawson, D. A., Stinson, F. S., Chou, S. P., Dufour, M. C., & Pickering, R. P. (2004). The 12-month prevalence and trends in DSM-IV alcohol abuse and dependence: United States, 1991–1992 and 2001–2002. *Drug and Alcohol Dependence*, 74(3), 223-234.
- Gray, J. H. (1972). *Booze: The impact of whiskey on the prairie west*. Toronto: Macmillan of Canada.
- Greenberg, A. (2007). From alchemy to chemistry in picture and story. Hoboken, NJ: Wiley-Interscience.

- Greenblatt, S. J. (1991). Marvelous possessions: The wonder of the New World. Chicago: University of Chicago Press.
- Griffiths, R. R., Richards, W. A., McCann, U., & Jesse, R. (2006). Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance. *Psychopharmacology*, 187(3), 268-283.
- Griffiths, R., Richards, W., Johnson, M., McCann, U., & Jesse, R. (2008). Mystical-type experiences occasioned by psilocybin mediate the attribution of personal meaning and spiritual significance 14 months later. *Journal of Psychopharmacology*, 22(6), 621-632.
- Grignon, P. (Producer). (2006). Money as debt [Animated video]. Canada: Moonfire Studio/Lifeboat News.
- Grinspoon, L., & Bakalar, J. B. (1979). *Psychedelic drugs reconsidered*. New York: Basic Books.
- Grinspoon, L., & Bakalar, J. B. (Eds.). (1983). *Psychedelic reflections*. New York: Human Sciences Press.
- Grob, C. S. (1999). The psychology of ayahuasca. In R. Metzner (Ed.), *Ayahuasca: Hallucinogens, consciousness, and the spirit of nature* (pp. 214-249). New York: Thunder's Mouth Press.
- Grob, C. S. (2000). Deconstructing ecstasy: The politics of MDMA research. *Addiction Research*, 8(6), 549-588.
- Grob, C. S., McKenna, D. J., Callaway, J. C., Brito, G. S., Neves, E. S., Oberlander, 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.
- Grof, S. (1994). *LSD psychotherapy: Exploring the frontiers of the human mind*. Alameda, CA: Hunter House. (Original work published 1980)
- Grof, S. (1998). Interview with Stan Grof—Council of Psychedelic Elders. Kalamazoo, MI: The Fetzer Foundation. Retrieved from: <a href="http://www.stanislavgrof.com/pdf/GrofLife&WorkInterview%20.pdf">http://www.stanislavgrof.com/pdf/GrofLife&WorkInterview%20.pdf</a>
- Grof, S., & Grof, C. (Eds.). (1989). *Spiritual emergency: When personal transformation becomes a crisis*. New York: Jeremy P. Tarcher.
- Grunwell, J. N. (1998). Ayahuasca tourism in South America [Electronic Version]. *MAPS Bulletin*, 8, 59-62. Retrieved from: <a href="http://www.maps.org/news-letters/v08n3/08359gru.html">http://www.maps.org/news-letters/v08n3/08359gru.html</a>

- Gruskin, S., Plafker, K., & Smith-Estelle, A. (2001). Understanding and responding to youth substance use: The contribution of a health and human rights framework. *Public Health Matters*, *91*(12), 1954-1963.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.
- Gusfield, J. R. (1955). Social structure and moral reform: A study of the Woman's Christian Temperance Union. *The American Journal of Sociology*, 61(3), 221-232.
- Gusfield, J. R. (1975). The (f)utility of knowledge?: The relation of social science to public policy toward drugs. *Annals of the American Academy of Political and Social Science*, 417, 1-15.
- Gusfield, J. R. (1986). Symbolic crusade: Status politics and the American temperance movement (2nd ed.). Urbana, IL: University of Illinois Press.
- Haakonssen, L. (1997). Medicine and morals in the enlightenment: John Gregory, Thomas Percival and Benjamin Rush. Amsterdam: Rodopi.
- Haas, P. M. (1992). Introduction: Epistemic communities and international policy coordination. *International Organization*, 46(1), 1-35.
- Haber, R. S., Carrasco, G. P., & Marmaduke, D. P. (2008). Plaintiffs trial brief: *The Church of the Holy Light of the Queen v. Mukasey, et al.* Portland, OR. Retreived from <a href="http://www.bialabate.net/wp-content/uploads/2009/04/27-101608-plaintiff-trial-brief.pdf">http://www.bialabate.net/wp-content/uploads/2009/04/27-101608-plaintiff-trial-brief.pdf</a>
- Habermas, J. (1989). *The structural transformation of the public sphere: An inquiry into a category of bourgeois society*. Cambridge, MA: MIT Press. (Original work published 1962)
- Hacking, I. (1990). Natural kinds. In R. B. Barrett & R. F. Gibson (Eds.), *Perspectives on Quine* (pp. 129-141). Cambridge, MA: Basil Blackwell.
- Hacking, I. (1991). How should we do the history of statistics? In G. Burchell, C. Gordon & P. Miller (Eds.), *The Foucault effect: Studies in governmentality* (pp. 181-195). Chicago: University of Chicago Press.
- Hacking, I. (1995). The looping effect of human kinds. In D. Sperber, D. Premack & A. J. Premack (Eds.), *Causal cognition: A multidisciplinary approach*. Oxford: Clarendon Press.
- Hacking, I. (1999). The social construction of what? Cambridge, MA: Harvard University Press.
- Hacking, I. (2002). *Historical ontology*. Cambridge, MA: Harvard University Press.

- Hagen, E. H., Sullivan, R. J., Schmidt, R., Morris, G., Kempter, R., & Hammerstein, P. (2009). Ecology and neurobiology of toxin avoidance and the paradox of drug reward. *Clinical Neuroscience*, 160(1), 69-84.
- Hagerty, L. (2000). The spirit of the internet: Speculations on the evolution of global consciousness. Tampa, FL: Matrix Masters.
- Halifax, J. (1979). Shamanic voices: A survey of visionary narratives. New York: Dutton.
- Hall, W. D. (2005). The prospects for tobacco harm reduction. *International Journal of Drug Policy*, 16(3), 139-142.
- Halpern, J. H. (1996). The use of hallucinogens in the treatment of addiction. *Addiction Research*, 4, 177-189.
- 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.
- Hameroff, S. R., Kaszniak, A. W., & Scott, A. (Eds.). (1996). *Toward a science of consciousness: The first Tucson discussions and debates*. Cambridge, MA: Massachussetts Institute of Technology.
- Hamilton, C. (2004). Growth fetish. London: Pluto Press.
- Hamilton, D. L. (2004). *Sobering dilemma: A history of prohibition in British Columbia*. Vancouver, BC: Ronsdale Press.
- Hammersley, M. (1997). On the foundations of critical discourse analysis. *Language & Communication*, 17(3), 237-248.
- Hanakawa, T., Honda, M., Okadac, T., Fukuyama, H., & Shibasakia, H. (2003). Neural correlates underlying mental calculation in abacus experts: A functional magnetic resonance imaging study, *NeuroImage*, *19*(2), 296-307.
- Hanna, J., & Thyssen, S. (Eds.). (2004). Rites of passage: Kids and psychedelics [Electronic Version]. *MAPS Bulletin*, *14*. Retrieved from <a href="http://www.maps.org/news-letters/v14n2/v14n2.pdf">http://www.maps.org/news-letters/v14n2/v14n2.pdf</a>
- Hansard. (1995, October 30). Debates of the House of Commons of Canada. Ottawa. Retrieved from:

  <a href="http://www2.parl.gc.ca/HousePublications/Publication.aspx?pub=Hansard&doc=250&Language=E&Mode=1&Parl=35&Ses=1#15981">http://www2.parl.gc.ca/HousePublications/Publication.aspx?pub=Hansard&doc=250&Language=E&Mode=1&Parl=35&Ses=1#15981</a>
- Hansen, H. A. (1978). *The witch's garden* (M. Crofts, Trans.). Santa Cruz, CA: Unity Press.

- Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspectives. *Feminist Studies*, *14*(3), 575–599.
- Harding, S. (2002). Rethinking standpoint epistemology: What is "strong objectivity"? In K. B. Wray (Ed.), *Knowledge and inquiry: Readings in epistemology* (pp. 352-384). Peterborough, ON: Broadview Press.
- Harman, W., McKim, R. H., Mogar, R. H., Fadiman, R. E., & Stolaroff, M. J. (1966). Psychedelic agents in creative problem-solving: A pilot study. *Psychological Reports*, 19(1), 211-227.
- Harner, M. J. (1973a). Common themes in South American Indian yagé experiences. In M. J. Harner (Ed.), *Hallucinogens and shamanism* (pp. 155-175). New York: Oxford University Press.
- Harner, M. J. (Ed.). (1973b). Hallucinogens and shamanism. Oxford: Oxford University Press.
- Harner, M. J. (1973c). The role of hallucinogenic plants in European witchcraft. In M. J. Harner (Ed.), *Hallucinogens and shamanism* (pp. 125-150). Oxford: Oxford University Press.
- Harrington, A. (2008). *The cure within: A history of mind-body medicine*. New York: W.W. Norton.
- Harris, L. T., & Fiske, S. T. (2008). Dehumanizing the lowest of the low: Neuroimaging responses to extreme out-groups. *Psychological Science*, 17(10), 847-853.
- Harris, O. (2006). Introduction. In *The yage letters redux* (pp. ix-lii). San Francisco: City Lights Books.
- Harrison, M. (2004). *Disease and the modern world: 1500 to present day*. Cambridge, UK: Polity Press.
- Hathaway, A. D., & Erickson, P. G. (2003). Drug reform principles and policy debates: Harm reduction prospects for cannabis in Canada. *Journal of Drug Issues*, 33(2), 465-495.
- Hawkins, J. D., Catalano, R. F., & Arthur, M. W. (2002). Promoting science-based prevention in communities. *Addictive Behaviours*, 27(6), 951-976.
- Hawthorne, G. (2001). Drug education: Myth and reality. *Drug and Alcohol Review, 20*(1), 111-119.
- Hayden, B. (2003). *Shamans, sorcerers and saints: A prehistory of religion*. Washington, DC: Smithsonian Books.
- Hazell, R., & Worthy, B. (2010). Assessing the performance of freedom of information. *Government Information Quarterly*, 27(4), 352-359.

- Health Canada. (1999a). Interim guidance document: Exemption under Section 56 for Medical Purposes. Ottawa: Health Canada. Retrieved from: <a href="http://www.johnconroy.com/library/interim.pdf">http://www.johnconroy.com/library/interim.pdf</a>
- Health Canada. (1999b). Directive on physical security requirements for controlled substances. Retrieved from: <a href="http://www.hc-sc.gc.ca/hc-ps/pubs/precurs/dealers-distrib/phys">http://www.hc-sc.gc.ca/hc-ps/pubs/precurs/dealers-distrib/phys</a> securit directive/index-eng.php
- Health Canada. (2007a, October 31). TPD/BGTD frequently asked questions: Good guidance practices. Retrieved from <a href="http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applic-demande/guide-ld/ggp-bpld/ggp\_bpld\_faq\_con-eng.php">http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applic-demande/guide-ld/ggp-bpld/ggp\_bpld\_faq\_con-eng.php</a>
- Health Canada. (2007b, June 14). Clinical assessment of abuse liability for drugs with central nervous system activity. Retrieved from <a href="http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applic-demande/guide-ld/abus/abuse liability abusif usage clin-eng.php">http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applic-demande/guide-ld/abus/abuse liability abusif usage clin-eng.php</a>
- Health Canada. (2007c, October 2). Insite given six-month extension says Minister Clement. Retrieved from: <a href="http://www.marketwire.com/press-release/Insite-Given-Six-Month-Extension-Says-Minister-Clement-776633.htm">http://www.marketwire.com/press-release/Insite-Given-Six-Month-Extension-Says-Minister-Clement-776633.htm</a>
- Health Canada. (2009a). A statistical profile on the health of First Nations in Canada: Determinants of health, 1999 to 2003. Ottawa: Health Canada, First Nations and Inuit Health Branch. Retrieved from <a href="http://www.hc-sc.gc.ca/fniah-spnia/pubs/aborig-autoch/2009-stats-profil/index-eng.php">http://www.hc-sc.gc.ca/fniah-spnia/pubs/aborig-autoch/2009-stats-profil/index-eng.php</a>
- Health Canada. (2009b). Drug Strategy and Controlled Substances Programme. Retrieved from <a href="http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/hecs-dgsesc/dscsp-psasc/index-eng.php">http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/hecs-dgsesc/dscsp-psasc/index-eng.php</a>
- Health Canada. (2010). Canadian Alcohol and Drug Use Monitoring Survey: Summary of results for 2009. Retrieved from <a href="http://www.hc-sc.gc.ca/hc-ps/drugs-drogues/stat/">http://www.hc-sc.gc.ca/hc-ps/drugs-drogues/stat/</a> 2009/summary-sommaire-eng.php
- Health Canada. (2011a). About Health Canada. Retrieved from <a href="http://www.hc-sc.gc.ca/ahc-asc/index-eng.php">http://www.hc-sc.gc.ca/ahc-asc/index-eng.php</a>
- Health Canada. (2011b). Healthy Environments and Consumer Safety Branch. Retrieved from <a href="http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/hecs-dgsesc/index-eng.php#offices">http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/hecs-dgsesc/index-eng.php#offices</a>
- Health Officers Council of British Columbia. (2005). *A public health approach to drug control in Canada*. Victoria, BC: Author. Retrieved from: <a href="http://www.cfdp.ca/bchoc.pdf">http://www.cfdp.ca/bchoc.pdf</a>
- Healy, D. (2002). *The creation of psychopharmacology*. Cambridge, MA: Harvard University Press.

- Healy, J. M. (1999). Endangered minds: Why children don't think—and what we can do about it. New York: Simon & Schuster.
- Helmer, J. (1975). *Drugs and minority oppression*. New York: Seabury Press.
- Henman, A. R., & Metaal, P. (2009). Coca myths. *Transnational Institute Briefing* (17), 1-23. Retrieved from <a href="http://www.tni.org/sites/www.tni.org/files/download/debate17">http://www.tni.org/sites/www.tni.org/sites/www.tni.org/files/download/debate17</a> 0.pdf
- Herlihy, P. (2002). *The alcoholic empire: Vodka and politics in late imperial Russia*. Oxford: Oxford University Press.
- Hewitt, S. (2004). "While unpleasant it is a service to humanity": The RCMP's war on drugs in the interwar period. *Journal of Canadian Studies*, 38(2), 80-104.
- Hill, D. (Director) (2001). Stoned Straight [radio program]. In L. Shorten (Producer), *Ideas*. Canada: Canadian Broadcasting Corporation.
- Hill, J. (1992). A musical aesthetic of ritual curing in the Northwest Amazon. In E. J. Langdon & G. Baer (Eds.), *Portals of power: Shamanism in South America* (pp. 175-210). Albuquerque, NM: University of New Mexico Press.
- Hill, M. (1997). *The policy process in the modern state* (3rd ed.). London: Prentice Hall/Harvester Wheatsheaf.
- Hillman, D. C. A. (2008). *The chemical muse: Drug use and the roots of Western civilization*. New York: Thomas Dunne Books.
- Hinde, R. A. (1999). Why gods persist: A scientific approach to religion. London: Routledge.
- Hodge, R., & Kress, G. (1993). Language as ideology (2nd ed.). New York: Routledge.
- Hogg, P. W. (1984). Canada's New Charter of Rights. *The American Journal of Comparative Law*, 32(2), 283-305.
- Hollick, B. (2005, March 8). Meth campaign hits local stores [Electronic Version]. Maple Ridge Times. Retrieved from http://www.mapinc.org/drugnews/v05/n407/a10.html
- Holloway, S. W. F. (1995). The regulation of the supply of drugs in Britain before 1868. In R. Porter & M. Teich (Eds.), *Drugs and narcotics in history* (pp. 77-96). Cambridge, UK: Cambridge University Press.
- Holman, C. (2011). Surfing for a shaman: Analyzing an ayahuasca website. *Annals of Tourism Research*. 38(1), 90-109
- Hopkins, T. K., & Wallerstein, I. (1982). *World-systems analysis: Theory and methodology* (Vol. 1). Beverly Hills: Sage Publications.

- Horowitz, M., & Palmer, C. (Eds.). (1999). *Moksha: Aldous Huxley's classic writings on psychedelics and the visionary experience*. Rochester, VT: Park Street Press.
- Horwitz, A. V. (1990). *The logic of social control*. New York: Plenum Press.
- Howard-Jones, N. (1947). A critical study of the origins and early development of hypodermic medication. *Journal of the History of Medicine*, *2*(2), 201-249.
- Howell, M. (2006, September 8). City's other safe injection site operating without federal permission. *Vancouver Courier*. Retrieved from: <a href="http://archive.vancourier.com/issues06/092206/news/092206nn7.html">http://archive.vancourier.com/issues06/092206/news/092206nn7.html</a>
- Hughes, P. (1967). Witchcraft. Harmondsworth, Middlesex, UK: Penguin Books.
- Human Rights Watch. (2004). *Thailand not enough graves: The war on drugs, HIV/AIDS, and violations of human rights*. *16*(8), 1-58. Retrieved from <a href="http://www.hrw.org/reports/2004/thailand0704/thailand0704.pdf">http://www.hrw.org/reports/2004/thailand0704/thailand0704.pdf</a>
- Humphrey, J. P. (1976). International Bill of Rights: Scope and implementation. *William and Mary Law Review*, 17(3), 527-541.
- Huxley, A. (1962). Island. New York: Harper & Row.
- Huxley, L. A. (1968). *This timeless moment: A personal view of Aldous Huxley*. New York: Farrar, Straus & Giroux.
- Hwang, S. W. (2007). Science and ideology. *Open Medicine*, 1(2), 99-101.
- Illich, I. (1971). Deschooling society. New York: Harper & Row.
- Illich, I. (1976). Medical nemesis: The expropriation of health. New York: Pantheon.
- International Harm Reduction Association. (2010). What is harm reduction?: A position statement from the International Harm Reduction Association [Electronic Version]. Retrieved from <a href="http://www.ihra.net/what-is-harm-reduction">http://www.ihra.net/what-is-harm-reduction</a>
- Jackson, T. (2009). *Prosperity without growth: Economics for a finite planet*. London: Earthscan.
- James, W. (1902). *The varieties of religious experience: A study in human nature*. London: Longmans, Green & Co.
- James, W. (1969). Subjective effects of nitrous oxide. In C. T. Tart (Ed.), *Altered states of consciousness* (pp. 359-362). New York: John Wiley & Sons, Inc. (Original work published 1882)

- Jamieson, R. W. (2001). The essence of commodification: Caffeine dependencies in the early modern world. *Journal of Social History*, *35*(2), 269-294.
- Janicki, K. (2006). *Language misconceived: Arguing for applied cognitive linguistics*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Jankowiak, W., & Bradburd, D. (Eds.). (2003). *Drugs, labor, and colonial expansion*. Tucson, AZ: University of Arizona Press.
- Jay, M. (2000). *Emperors of dreams: Drugs in the nineteenth century*. Sawtry, Cambs, UK: Daedelus.
- Jay, M. (2009). The atmosphere of heaven: The unnatural experiments of Dr. Beddoes and his sons of genius. New Haven, CT: Yale University Press.
- Jayawant, S. S., & Balkrishnan, R. (2005). The controversy surrounding OxyContin abuse: Issues and solutions. *Therapeutics and Clinical Risk Management*, 1(2), 77-82.
- Jellinek, E. M. (1960). The disease concept of alcoholism. New Haven, CT: Hill House Press.
- Jiménez, M. (2001, June 9). Saving the 'vine of the soul'. *National Post*, pp. B4-5. Retrieved from <a href="http://www.mapinc.org/drugnews/v01/n1037/a04.html?show">http://www.mapinc.org/drugnews/v01/n1037/a04.html?show</a>
- Johnson, F. H. (1968). A brief history of Canadian education. Toronto: McGraw-Hill.
- John-Steiner, V., & Souberman, E. (1978). Afterword. In M. Cole, V. John-Steiner, S. Scribner & E. Souberman (Eds.), *Mind in society: The development of higher psychological processes* (pp. 121-133). Cambridge, MA: Harvard University Press.
- Jones, C. (2001). Fixing to sue: Is there a legal duty to establish safe injection facilities in British Columbia?. University of British Columbia Law Review, 35(2), 393-454.
- Jones, G. A., & Young, S. J. (2004). 'Madly off in all directions': Higher education, marketisation and Canadian federalism. In P. Teixeira, B. Jongbloed, D. Dill & A. Amaral (Eds.), *Markets in higher education: Rhetoric or reality?* (pp. 185-205). Norwell, MA: Kluwer.
- Jürgens, R. (2005). Nothing about us without us—greater meaningful involvement of people who use illegal drugs: A public health, ethical and human rights imperative. Toronto: Canadian HIV/AIDS Legal Network. Retrieved from <a href="http://www.aidslaw.ca/publications/interfaces/downloadFile.php?ref=574">http://www.aidslaw.ca/publications/interfaces/downloadFile.php?ref=574</a>
- Jürgens, R., Csete, J., Amon, J. J., Baral, S., & Beyrer, C. (2010). People who use drugs, HIV, and human rights. *The Lancet*, *376*(9739), 475-485.

- Kahn, R. (2010). Critical pedagogy, ecoliteracy, & planetary crisis: The ecopedagogy movement. New York: Peter Lang.
- Karpetas, S. (2003). Ground central station at the Boom Festival: Creating a safe space for working with psychedelic crises. *MAPS Bulletin*, *13*(1), 37-40. Retrieved from <a href="http://www.maps.org/news-letters/v13n1/13140kar.pdf">http://www.maps.org/news-letters/v13n1/13140kar.pdf</a>
- Katz, F., & Dobkin de Rios, M. (1971). Hallucinogenic music: An analysis of the role of whistling in Peruvian ayahuasca healing sessions. *The Journal of American Folklore*, 84(333), 320-327.
- Kelly, J. F., & Westerhoff, C. M. (2010). Does it matter how we refer to individuals with substance-related conditions? A randomized study of two commonly used terms. *International Journal of Drug Policy*, 21(3), 202-207.
- Kelly, K. (1989). The self-organizing mind of plants. *Whole Earth Review, 64*, 4. Retrieved from <a href="http://viewer.zmags.com/showmag.php?mid=hghrq">http://viewer.zmags.com/showmag.php?mid=hghrq</a>
- Kelly, N., & Kelly, W. (1973). *The Royal Canadian Mounted Police: A century of history*. Edmonton, AB: Hurtig Publishers.
- Kerr, T., Small, W., Peeace, W., Douglas, D., Pierre, A., & Wood, E. (2006). Harm reduction by a 'user-run' organization: A case study of the Vancouver Area Network of Drug Users. *International Journal of Drug Policy*, 17(2), 61-69.
- Khey, D. N., Miller, B. L., & Griffin, O. H. (2008). *Salvia divinorum* use among a college student sample. *Journal of Drug Education*, *38*(3), 297-306.
- Kim, B., & Reeves, T. C. (2007). Reframing research on learning with technology: In search of the meaning of cognitive tools *Instructional Science*, *35*(3), 207-256.
- Kincheloe, J. L., & McLaren, P. (2005). Rethinking critical theory and qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 303-342). Thousand Oaks, CA: Sage Publications.
- Kinder, D. C. (1981). Bureaucratic cold warrior: Harry J. Anslinger and illicit narcotics traffic. *The Pacific Historical Review, 50*(2), 169-191.
- Kinder, D. C., & Walker, W. O. (1986). Stable force in a storm: Harry J. Anslinger and United States narcotic foreign policy, 1930-1962. *The Journal of American History*, 72(4), 908-927.
- King County Bar Association. (2005). *Effective drug control: Toward a new legal framework*. Seattle, WA: King County Bar Association. Retrieved from <a href="http://www.kcba.org/druglaw/pdf/EffectiveDrugControl.pdf">http://www.kcba.org/druglaw/pdf/EffectiveDrugControl.pdf</a>

- King, M., Smith, A., & Gracey, M. (2009). Indigenous health part 2: The underlying causes of the health gap. *The Lancet*, *374*(9683), 76-85.
- Kjellgren, A., Eriksson, A., & Norlander, T. (2009). Experiences of encounters with ayahuasca—"the vine of the soul". *Journal of Psychoactive Drugs*, 41(4), 309-315.
- Koh, H. K., Joossens, L. X., & Connolly, G. N. (2007). Making smoking history worldwide. *New England Journal of Medicine*, 356(15), 1496-1498.
- Kohn, M. (1992). *Dope girls: The birth of the British drug underground*. London: Lawrence & Wishart.
- Krcmar, M. (2009). Living without the screen: Causes and consequences of life without television. New York: Routledge.
- Kuhn, T. S. (1962). The structure of scientific revolutions. Chicago: University of Chicago Press.
- Kumar, K. (1995). From post-industrial to post-modern society: New theories of the contemporary world. Cambridge, MA: Blackwell Publishers
- La Barre, W. (1972). Hallucinogens and the shamanic origins of religion. In P. Furst (Ed.), *The flesh of the gods: The ritual use of hallucinogens* (pp. 261-278). New York: Praeger.
- Labate, B. C. (2004). *A reinvenção do uso da ayahuasca nos centros urbanos* [The reinvention of the use of ayahuasca in urban centres]. Campinas, Brazil: Mercado de Letras.
- Labate, B.C., & Cavnar, C. (2010). The expansion of the field of research on ayahuasca: Some reflections about the ayahuasca track at the 2010 MAPS "Psychedelic Science in the 21st Century" conference. *International Journal of Drug Policy*. Advance online publication. doi:10.1016/j.drugpo.2010.09.002
- Labate, B. C., & Jungaberle, H. (Eds.). (forthcoming). *The internationalization of ayahuasca*. Göttingen: Hogrefe.
- Labate, B. C., & MacRae, E. (Eds.). (2010). *Ayahuasca, ritual and religion in Brazil*. London: Equinox.
- Labate, B. C., & Pacheco, G. (2010). *Opening the portals of heaven: Brazilian ayahuasca music.* Berlin-Münster-Wien-Zürich-London: LIT Verlag.
- Labate, B. C., Rose, I. S. de, & Santos, R. G. (2009). *Ayahuasca religions: 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.
- Lajoie, S. P., & Derry, S. J. (Eds.). (1993). *Computers as cognitive tools*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Lakoff, G. (1987). Women, fire and dangerous things: What categories reveal about the mind. Chicago: University of Chicago Press.
- Lakoff, G., & Johnson, M. (1980). Metaphors we live by. Chicago: University of Chicago Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
- Lamb, F. B. (1974). *Wizard of the upper Amazon: The story of Manuel Córdova-Rios* (2nd ed.). Boston: Houghton-Mifflin.
- Lamb, F. B. (1985). *Rio Tigre and beyond: The Amazon jungle medicine of Manuel Córdova*. Berkeley, CA: North Atlantic Books.
- Lancaster, K., Hughes, C. E., Spicer, B., Matthew-Simmons, F., & Dillon, P. (2010). Illicit drugs and the media: Models of media effects for use in drug policy research. *Drug and Alcohol Review*. Advance online publication. doi: 10.1111/j.1465-3362.2010.00239.x
- Lande, A. (1976). Commentary on the Convention on Psychotropic Substances, done at Vienna on 21 February 1971. New York: United Nations.
- Landy, J., & Saler, M. (Eds.). (2009). *The re-enchantment of the world: Secular magic in a rational age*. Stanford, CA: Stanford University Press.
- Lange, J. E., Reed, M. B., Ketchie Croff, J. M., & Clapp, J. D. (2008). College student use of *Salvia divinorum*. *Drug and Alcohol Dependence*, *94*(1-3), 263-266.
- Langer, B. (2002). Commodified enchantment: Children and consumer capitalism. *Thesis Eleven*, 69(1), 67-81.
- Langlois, A., & Dubois, F. (Eds.). (2005). *Autonomous media: Activating resistance & dissent*. Montreal: Cumulus Press.
- Langlois, A., Sakolsky, R. & van der Zon, M. (2010). *Islands of resistance: Pirate radio in Canada*. Vancouver: New Star Books.
- Laniel, L. (1999). The relationship between research and drug policy in the United States.

  Management of Social Transformations—UNESCO Discussion Paper #44. Retrieved from <a href="http://www.unesco.org/most/dplaniel.htm">http://www.unesco.org/most/dplaniel.htm</a>

- Lart, R. (1998). Medical power and knowledge: The treatment and control of drugs and drug users. In R. Coomber (Ed.), *The control of drugs and drug users: Reason or reaction?* (pp. 49-68). Amsterdam: Harwood Academic Publishers.
- Lasswell, H. D. (1971). *A pre-view of policy sciences*. New York: American Elsevier Publishing Company, Inc.
- Laucius, J. (2005, November 23). Hallucinogenic 'sacrament' sparks debate on religion. *Ottawa Citizen*. Retrieved from http://www.mapinc.org/drugnews/v05/n1839/a04.html?show
- Lavoie, F. W., & Harris, T. M. (1991). Fatal nicotine ingestion. *The Journal of Emergency Medicine*, *9*(3), 133-136.
- Lawrence, G. (2002). The hypodermic syringe. The Lancet, 359(9311), 1074.
- Leary, T. F. (1968). *The politics of ecstasy*. New York: Putnam.
- Leary, T., & Clark, W. H. (1963). Religious implications of consciousness expanding drugs. *Religious Education*, 58(3), 251-256.
- Leech, G. N. (1981). Semantics (2nd ed.). Hammondsworth, UK: Penguin.
- Legault, S. (2010). *Out of time: 2008-2009 report cards—Systemic issues affecting Access to Information in Canada*. Ottawa: The Office of the Information Commissioner of Canada. Retreived from <a href="http://www.infocom.gc.ca/eng/rp-pr\_spe-rep\_rap-spe\_rep-car\_fic-ren\_2008-2009.aspx">http://www.infocom.gc.ca/eng/rp-pr\_spe-rep\_rap-spe\_rep-car\_fic-ren\_2008-2009.aspx</a>
- Lemmings, D. (2009). Conclusion: Moral panics, law and the transformation of the public sphere in early modern England. In D. Lemmings & C. Walker (Eds.), *Moral panics, the media and the law in early modern England* (pp. 245-266). New York: Palgrave Macmillan.
- Lerner, D., & Lasswell, H. D. (Eds.). (1951). *Policy sciences: Recent developments in scope and method*. Stanford, CA: Stanford University Press.
- Letcher, A. (2007). Mad thoughts on mushrooms: Discourse and power in the study of psychedelic consciousness. *Anthropology of Consciousness*, 18(2), 74-97.
- Leukefeld, C. G., & Tims, F. M. (Eds.). (1988). *Compulsory treatment of drug abuse: Research and clinical practice*. Rockville, MD: National Institute on Drug Abuse, U.S. Department of Health and Human Services.
- Levere, T. H., & Turner, G. L. (2002). Discussing chemistry and steam: The minutes of a coffee house philosophical society, 1780-1787. Oxford: Oxford University Press.
- Levine, H. G. (1978). The discovery of addiction: Changing conceptions of habitual drunkenness in America. *Journal of Studies on Alcohol*, *39*(1), 143-174.

- Levitin, D. J. (2006). *This is your brain on music: The science of a human obsession*. New York: Penguin Group.
- Lexchin, J. (1997). What information do physicians receive from pharmaceutical representatives? *Canadian Family Physician*, 43, 941-945.
- Li, J. J. (2006). *Laughing gas, Viagara, and Lipitor: The human stories behind the drugs we use.* Oxford: Oxford University Press.
- Lilly, J. C. (1967). Dolphin-human relation and LSD 25. In H. A. Abramson (Ed.), *The use of LSD in psychotherapy and alcoholism* (pp. 47-52). Indianapolis, IN: The Bobbs-Merrill Company Inc.
- Lima, N. T. (2007). Public health and social ideals in modern Brazil. *American Journal of Public Health*, *97*(7), 1168-1177.
- Lines, R. (2007). *The death penalty for drug offences: A violation of international human rights law*. London: International Harm Reduction Association. Retrieved from: <a href="http://www.ihra.net/files/2010/07/01/DeathPenaltyReport2007.pdf">http://www.ihra.net/files/2010/07/01/DeathPenaltyReport2007.pdf</a>
- Littlefield, C. (Director). (2002). *Hofmann's potion* [Motion picture documentary]. Canada: National Film Board of Canada. Retrieved from: <a href="http://www.nfb.ca/film/hofmanns">http://www.nfb.ca/film/hofmanns</a> potion/
- Locke, T. (2004). Critical discourse analysis. London: Continuum.
- Lodwick, K. (1996). *Crusaders against opium: Protestant missionaries in China, 1874-1917*. Lexington, KY: University Press of Kentucky.
- Lohman, D. (2009). "Please, do not make us suffer any more . . . ": Access to pain treatment as a human right. New York: Human Rights Watch. Retrieved from <a href="http://www.hrw.org/sites/default/files/reports/health0309web">http://www.hrw.org/sites/default/files/reports/health0309web</a> 1.pdf
- Lorde, A. (1984). Sister outsider: Essays and speeches. Trumansburg, NY: Crossing Press.
- Lovelock, J. E. (2009). The vanishing face of Gaia: A final warning. New York: Basic Books.
- Lucas, P. G. (2008). Regulating compassion: An overview of Canada's federal medical cannabis policy and practice. *Harm Reduction Journal*, *5*(5), 1-13.
- Lucas, P. G. (2009). Moral regulation and the presumption of guilt in Health Canada's medical cannabis policy and practice. *International Journal of Drug Policy*, 20(4), 296-303.
- Luke, A. (1995). Text and discourse in education: An introduction to critical discourse analysis. *Review of Research in Education*, 21, 3-48.

- Luke, A. (2002). Beyond science and ideology critique: Developments in critical discourse analysis. *Annual Review of Applied Linguistics*, 22, 96-110.
- Luna, L. E. (1984a). The concept of plants as teachers among four mestizo shamans of Iquitos, northeastern Peru. *Journal of Ethnopharmacology*, *11*(2), 135-156.
- Luna, L. E. (1984b). The healing practices of a Peruvian shaman. *Journal of Ethnopharmacology*, 11(2), 123-133.
- Luna, L. E. (1986). Vegetalismo: Shamanism among the Mestizo population of the Peruvian Amazon. Stockholm: Acta Universitatis Stockholmiensis.
- Luna, L. E. (1992). Icaros: Magic melodies among the mestizo shamans of the Peruvian Amazon. In E. J. Langdon & G. Baer (Eds.), *Portals of power: Shamanism in South America* (pp. 231-253). Albuquerque, NM: University of New Mexico Press.
- Luna, L. E. (2003). Ayahuasca: Shamanism shared across cultures [Electronic Version]. *Cultural Survival Quarterly*, 27 from: http://www.cs.org/publications/Csq/csq-article.cfm?id=1659
- Luna, L. E., & Amaringo, P. C. (1991). *Ayahuasca visions: The religious iconography of a Peruvian shaman*. Berkeley, CA: North Atlantic Books.
- Luna, L. E., & White, S. F. (Eds.). (2000). *Ayahuasca reader: Encounters with the Amazon's sacred vine*. Santa Fe, NM: Synergetic Press.
- Lyons, C. G. (1980). The meaning of the English definite article. In J. V. D. Auwera (Ed.), The semantics of determiners (pp. 81-95). Baltimore, MD: University Park Press.
- Lyttle, T., & Montagne, M. (1992). Drugs, music and ideology: A social pharmacological interpretation of the acid house movement. *International Journal of the Addictions*, 27(10), 159-177.
- Mabit, J. (2007). Ayahuasca in the treatment of addictions. In M. J. Winkelman & T. B. Roberts (Eds.), *Psychedelic medicine: New evidence for hallucinogenic substances as treatments* (Vol. 2, pp. 87-105). Westport, CT: Praeger Publishers.
- Mabit, J., & Sieber, C. (2006). The evolution of a pilot drug treatment program using ayahuasca. *Shaman's Drum: A Journal of Experiential Shamanism and Spiritual Healing*, 73.
- Mabit, M. (1996). Takiwasi: Ayahuasca and shamanism in addiction therapy [Electronic Version]. *MAPS Bulletin*, 6. Retrieved from: <a href="http://www.maps.org/news-letters/v06n3/06324aya.html">http://www.maps.org/news-letters/v06n3/06324aya.html</a>
- MacCreagh, G. (1961). White waters and black. Garden City, NY: Anchor Books.

- Macleod, R. C. (1994). Royal Canadian Mounted Police (RCMP) and the evolution of provincial policing. In R. C. Macleod & D. Schneiderman (Eds.), *Police powers in Canada: The evolution and practice of authority* (pp. 44-56). Toronto: University of Toronto Press.
- MacPherson, D. (2001). A framework for action: A four pillar approach to drug problems in Vancouver. Vancouver: City of Vancouver.
- MacPherson, D., Mulla, Z., Richardson, L., & Beer, T. (2005). *Preventing harm from psychoactive substance use*. Vancouver, BC: City of Vancouver. Retrieved from <a href="http://www.city.vancouver.bc.ca/fourpillars/pdf/PrevHarmPsychoSubUse.pdf">http://www.city.vancouver.bc.ca/fourpillars/pdf/PrevHarmPsychoSubUse.pdf</a>
- MacRae, E. (1992). Guided by the moon—Shamanism and the ritual use of ayahuasca in the Santo Daime religion in Brazil. São Paulo, Brazil. Retrieved from: http://www.neip.info/downloads/t\_edw2.pdf
- MacRae, E. (1998). Santo Daime and Santa Maria—the licit ritual use of ayahuasca and the illicit use of cannabis in a Brazilian Amazonian religion. *International Journal of Drug Policy*, *9*(5), 325-338.
- MacRae, E. (2004). The ritual use of ayahuasca by three Brazilian religions. In R. Coomber & N. South (Eds.), *Drug use and cultural contexts 'beyond the West': Tradition, change and post-colonialism* (pp. 27-45). UK: Free Association Books.
- MacRae, E. (2006). The religious uses of licit and illicit psychoactive substances in a branch of the Santo Daime religion. *Fieldwork in Religion*, *2*(3), 393-414.
- MacRae, E. (2010). The development of Brazilian public policies on the religious use of ayahuasca. In B. C. Labate & E. MacRae (Eds.), *Ayahuasca*, *ritual and religion in Brazil* (pp. 191-204). London: Equinox.
- Malleck, D. (1997). 'Its baneful influences are too well known': Debates over drug use in Canada, 1867-1908. *Canadian Bulletin of Medical History*, *14*, 263-288.
- Manderson, D. (1999). Symbolism and racism in drug history and policy. *Drug and Alcohol Review*, 18(2), 179-186.
- Markoff, J. (2005). What the dormouse said: How the sixties counterculture shaped the personal computer industry. New York: Viking.
- Marlatt, G. A. (1996). Harm reduction: Come as you are. Addictive Behaviors, 21(6), 779-788.
- Marlatt, G. A., & Witkiewitz, K. (2002). Harm reduction approaches to alcohol use: Health promotion, prevention, and treatment. *Addictive Behaviors*, *27*(6), 867-886.
- Marsh, D. (1998). The development of the policy network approach. In D. Marsh (Ed.), *Comparing policy networks* (pp. 3-17). Buckingham, UK: Open University Press.

- Marston, G., & Watts, R. (2003). Tampering with the evidence: A critical appraisal of evidence-based policy-making. *The Drawing Board: An Australian Review of Public Affairs*, 3(3), 143-163.
- Martin, A. L. (2009). *Alcohol, violence, and disorder in traditional Europe*. Kirksville, MO: Truman State University Press.
- Masters, R. E. L., & Huston, J. (1966). *The varieties of psychedelic experience*. New York: Holt, Rinehart and Winston.
- Maté, G. (2008). In the realm of hungry ghosts: Close encounters with addiction. Toronto: Vintage Canada.
- Matthee, R. (1995). Exotic substances: The introduction and global spread of tobacco, coffee, cocoa, tea, and distilled liquor, sixteenth to eighteenth centuries. In R. Porter & M. Teich (Eds.), *Drugs and narcotics in history* (pp. 24-51). Cambridge, UK: Cambridge University Press.
- May, S. (Ed.). (1999). *Indigenous community-based education*. Philadelphia, PA: Multilingual Matters.
- Mazur, C. S. (1991). Marijuana as a "holy sacrament": Is the use of peyote constitutionally distinguishable from that of marijuana in bona fide religious ceremonies? *Notre Dame Journal of Law, Ethics & Public Policy*, 5(3), 693-727.
- McAllister, W. B. (2000). *Drug diplomacy in the twentieth century: An international history*. New York: Routledge.
- McClenon, J. (1997). Shamanic healing, human evolution, and the origin of religion. *Journal for the Scientific Study of Religion*, 36(3), 345-354.
- McCombs, M. (2004). *Setting the agenda: The mass media and public opinion*. Cambridge: Polity Press.
- McKenna, D. J. (2004). Clinical investigations of the therapeutic potential of ayahuasca: Rationale and regulatory challenges. *Pharmacology & Therapeutics*, *102*, 111-129.
- McKenna, D. J. (2005). Ayahuasca and human destiny. *Journal of Psychoactive Drugs*, 37(2), 231-234.
- McKenna, D. J., Luna, L. E., & Towers, G. N. (1995). Biodynamic constituents in ayahuasca admixture plants: An uninvestigated folk pharmacopeia. In R. E. Schultes & S. vonReis (Eds.), *Ethnobotany: Evolution of discipline* (pp. 349-361). Portland, OR: Dioscorides Press.

- McKenna, D. J., Towers, G. H. N., & Abbot, F. (1984). Monoamine oxidase inhibitors in South American hallucinogenic plants: Tryptamine and beta-carboline constituents of ayahuasca. *Journal of Ethnopharmacology*, 10(2), 195-223.
- McKenna, T. K. (1992). Food of the gods: The search for the original tree of knowledge. New York: Bantam.
- McKenna, T. K., & McKenna, D. J. (1975). *The invisible landscape: Mind, hallucinogens, and the I Ching.* New York: Seabury Press.
- McKenna, T., & McKenna, D. (1994). *The invisible landscape: Mind, hallucinogens and the I Ching* (revised ed.). New York: HarperSanFrancisco.
- McKinnon, T., & Cler-Cunningham, L. (Producers). (2007, November 19 & 26). In search of the divine vegetal, *Ideas* [radio broadcast]. Toronto: Canadian Broadcasting Corporation.
- McRoy, S. W. (1992). Using multiple knowledge sources for word sense discrimination. *Computational Linguistics*, 18(1), 1-30.
- McWilliams, J. C. (1990). *The protectors: Harry J. Anslinger and the Federal Bureau of Narcotics*, 1930-1962. Newark, NJ: University of Delaware Press.
- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W. (1972). *The limits to growth:* A report for the Club of Rome's project on the predicament of mankind. New York: Universe Books.
- Meech, R. (Director) (2009). *Vine of the soul: Encounters with ayahuasca* [Documentary film]. Canada: Vision TV.
- Merchant, C. (1980). *The death of nature: Women, ecology, and the scientific revolution*. San Francisco: Harper & Row.
- Metzner, R. (1998). Hallucinogenic drugs and plants in psychotherapy and shamanism. *Journal of Psychoactive Drugs*, 30(4), 333-341.
- Metzner, R. (Ed.). (1999). *Ayahuasca: Hallucinogens, consciousness, and the spirit of nature*. New York: Thunder's Mouth Press.
- Meyer, M. (2003). The seringueiro, the caboclo, and the forest queen: Origin myths of the Santo Daime church (unpublished paper). Charlottesville, VA: University of Virginia. Retrieved from: <a href="http://www.neip.info/downloads/t\_matthew\_seringueiro.pdf">http://www.neip.info/downloads/t\_matthew\_seringueiro.pdf</a>
- Meyer, M. (2010). Light from the forest: Cultural heritage and religious drug use in Amazonian Brazil (unpublished paper). Núcleo de Estudos Interdisciplinares sobre Psicoativos (NEIP). Retrieved from <a href="http://www.neip.info/html/objects/\_downloadblob.php?cod\_blob=936">http://www.neip.info/html/objects/\_downloadblob.php?cod\_blob=936</a>

- Mezvinsky, N. (1961). Scientific temperance instruction in the schools. *History of Education Quarterly, 1*(1), 48-56.
- Michalak, L., & Trocki, K. (2006). Alcohol and Islam: An overview. *Contemporary Drug Problems*, 33(4), 523-562.
- Michelow, W., & Tupper, K. W. (2007, May 16). *Psychedelic emergency response: Reducing harm at large dance festivals*. Paper presented at the 18th International Conference on the Reduction of Drug Related Harm, Warsaw, Poland.
- Middlemiss, H. S. (Ed.). (1926). Narcotic education: Edited report of the proceedings of the first world conference on narcotic education, Philadelphia, Pennsylvania. Washington, DC: Author.
- Middleton, W. E. K. (1979). *Physics at the National Research Council of Canada, 1929-1952*. Waterloo, ON: Wilfrid Laurier University Press.
- Midford, R. (2010). Drug prevention programmes for young people: Where have we been and where should we be going? *Addiction*. 105(10), 1688-1695.
- Millroy, J. S. (1999). A national crime: The Canadian government and the residential school system, 1879 to 1986. Winnipeg: University of Manitoba Press.
- Mills, J. H. (2003). *Cannabis Britannica: Empire, trade, and prohibition, 1800-1928*. Oxford: Oxford University Press.
- Mintz, S. W. (1985). Sweetness and power: The place of sugar in modern history. New York: Viking Penguin.
- Miron, J. A. (2003). The effect of drug prohibition on drug prices: Evidence from the markets for cocaine and heroin. *The Review of Economics and Statistics*, 85(3), 522-530.
- Mithoefer, M. C., Wagner, M. T., Mithoefer, A. T., Jerome, L., & Doblin, R. (2010). The safety and efficacy of 3,4-methylenedioxymethamphetamine-assisted psychotherapy in subjects with chronic, treatment-resistant posttraumatic stress disorder: The first randomized controlled pilot study. *Journal of Psychopharmacology*. Advance online publication. doi:10.1177/0269881110378371
- Mold, A., & Berridge, V. (2008). 'The rise of the user'?: Voluntary organizations, the state and illegal drugs in England since the 1960s. *Drugs: Education, prevention and policy*, 15(5), 451-461.
- Montagne, M. (1988). The metaphorical nature of drugs and drug taking. *Social Science & Medicine*, 26(4), 417-424.
- Montgomery, C. (2001, February 10). High tea. The Vancouver Sun.

- Moore, D. (2004). Drugalities: The generative capabilities of criminalized 'drugs'. *International Journal of Drug Policy*, 15(5-6), 419-426.
- Moore, S. F., & Myerhoff, B. G. (1977). Introduction: Secular ritual: Forms and meanings. In S. F. Moore & B. G. Myerhoff (Eds.), *Secular ritual* (pp. 3-24). Amsterdam: Van Gorcum & Co.
- Moran, B. T. (2005). *Distilling knowledge: Alchemy, chemistry and the scientific revolution*. Cambridge, MA: Harvard University Press.
- Moran, J. P. (2000). *Teaching sex: The shaping of adolescence in the 20th century*. Cambridge, MA: Harvard University Press.
- Morris, K. (2008). Research on psychedelics moves into the mainstream. *The Lancet, 371*(9623), 1491-1492.
- Mosher, C. (2001). Predicting drug arrest rates: Conflict and social disorganization perspectives. *Crime & Deliquency*, 47(1), 84-104.
- Moynihan, R., & Cassels, A. (2005). *Selling sickness: How the world's biggest pharmaceutical companies are turning us all into patients*. New York: Nation Books.
- Multidisciplinary Association for Psychedelic Studies. (n.d.). About MAPS. Retrieved from: http://www.maps.org/about/mission/
- Murphy, E. F. (1922). *The black candle*. Toronto: Thomas Allen Publisher.
- Musto, D. F. (1999). *The American disease: Origins of narcotic control* (3rd ed.). New York: Oxford University Press.
- Nadelmann, E. A. (1989). Drug prohibition in the United States: Costs, consequences and alternatives. *Science*, *245*(4921), 939-947.
- Narby, J. (1998). *The cosmic serpent: DNA and the origins of knowledge*. New York: Jeremy P. Tarcher/Putnam.
- Narby, J. (2002). Shamans and scientists. In C. S. Grob (Ed.), *Hallucinogens: A reader* (pp. 159-163). New York: Jeremy P. Tarcher/Putnam.
- Narby, J. (2005). *Intelligence in nature: An inquiry into knowledge*. New York: Jeremy P. Tarcher/Penguin.
- Nascimento, A. F. N. (2006). Psychedelic rituals in the planetary era. Núcleo de Estudos Interdisciplinares sobre Psicoativos (NEIP). Retrieved from <a href="http://www.neip.info/html/objects/">http://www.neip.info/html/objects/</a> downloadblob.php?cod blob=282

- National Institute on Drug Abuse. (2010). Drugs of abuse information. Retrieved from <a href="http://drugabuse.gov/drugpages">http://drugabuse.gov/drugpages</a>
- Nelson, M. (2005). *The barbarian's beverage: A history of beer in ancient Europe*. New York: Routledge.
- Nesse, R. M., & Berridge, K. C. (1997). Psychoactive drug use in evolutionary perspective. *Science*, 278(5335), 63-68.
- Neufeld, G., & Maté, G. (2005). *Hold on to your kids: Why parents need to matter more than peers*. Toronto: Vintage Canada.
- Newman, M. (2005). Socialism: A very short introduction. Oxford: Oxford University Press.
- Newman, P. C. (1978). *Bronfman dynasty: The Rothschilds of the new world*. Toronto: McClelland and Stewart.
- Nichols, D. E. (2004). Hallucinogens. *Pharmacology & Therapeutics*, 101(2), 131-181.
- Norton, M. (2008). Sacred gifts, profane pleasures: A history of tobacco and chocolate in the Atlantic World. Ithaca, NY: Cornell University Press.
- Nutt, D., King, L. A., Saulsbury, W., & Blakemore, C. (2007). Development of a rational scale to assess the harm of drugs of potential misuse. *Lancet*, *369*, 1047-1053.
- Off, C. (2006). *Bitter chocolate: Investigating the dark side of the world's most seductive sweet.* Toronto: Random House Canada.
- Olson, D. R. (1996). *The world on paper: The conceptual and cognitive implications of reading and writing*. Cambridge, MA: Cambridge University Press.
- O'Neil, P. (2006, November 22). B.C. experts' Insite report not enough for Ottawa. The Vancouver Sun.
- Ong, W. (1982). Orality and literacy: The technologizing of the word. New York: Methuen.
- Oregon Board of Pharmacy. (2000, November 8). Board Meeting Minutes. Portland, OR: Author. Retrieved from <a href="http://www.oregon.gov/Pharmacy/pdf/nov00min.pdf">http://www.oregon.gov/Pharmacy/pdf/nov00min.pdf</a>
- Orr, D. W. (1994). *Earth in mind: On education, environment, and the human prospect.* Washington, DC: Island Press.
- Osmond, H. (1967). A comment on some uses of psychotomimetics in psychiatry. In H. A. Abramson (Ed.), *The use of LSD in psychotherapy and alcoholism* (pp. 430-433). Indianapolis, IN: The Bobs-Merrill Company Inc.

- Ostrow, R. J. (1990, September 6). Casual drug users should be shot, Gates says. *Los Angeles Times*, p. A1. Retrieved from <a href="http://articles.latimes.com/1990-09-06/news/mn-983">http://articles.latimes.com/1990-09-06/news/mn-983</a> 1 casual-drug-users
- O'Sullivan, E. V. (1999). *Transformative learning: Educational vision for the 21st century*. Toronto: University of Toronto Press.
- Ott, J. (1994). *Ayahuasca analogues: Pangæan entheogens*. Kennewick, WA: Natural Products Company.
- Ott, J. (1995). *The age of entheogens & the angels' dictionary*. Kennewick, WA: Natural Products Co.
- Ott, J. (1996). *Pharmacotheon: Entheogenic drugs, their plant sources and history* (2nd ed.). Kennewick, WA: Natural Products Company.
- Ott, J. (1997). Pharmacophilia, or the natural paradises. Kennewick, WA: Natural Products Co.
- Ott, J. (1999). Pharmahuasca: Human pharmacology of oral DMT plus harmine. *Journal of Psychoactive Drugs*, 31(2), 171-177.
- Ottley, L. (n.d. ). Regina v. Juan & Edgar Uyunkar—agreed statement of facts. Gore Bay, ON: Ontario Provincial Crown Attorney's Office.
- Otto, R. (1958). The idea of the holy: An inquiry into the non-rational factor in the idea of the divine and its relation to the rational (J. W. Harvey, Trans. 2nd ed.). New York: Oxford University Press.
- Pahnke, W. N. (1967). The contribution of the psychology of religion to the therapeutic use of the psychedelic substances. In H. A. Abramson (Ed.), *The use of LSD in psychotherapy and alcoholism* (pp. 629-649). Indianapolis, IN: The Bobbs-Merrill Company Inc.
- Pal, L. A. (2001). *Beyond policy analysis: Public issue management in turbulent times* (2nd ed.). Ottawa: Nelson Thomson Learning.
- Palacios, M. (1980). *Coffee in Colombia, 1850-1970: An economic, social, and political history.* New York: Cambridge University Press.
- Palango, P. (2008). *Dispersing the fog: Inside the secret world of Ottawa and the RCMP*. Toronto: Key Porter Books.
- Palmer, L. D. (2004, November/December). The vine of the soul. *Spirituality & Health*, 57-63, 78-81.
- Pande, C. G. (1984). Foundations of Indian culture: Spiritual vision and symbolic forms in ancient India. New Delhi: Books & Books.

- Pantoja, M. C., & Conceição, O. S. d. (2010). The use of ayahuasca among rubber tappers of the Upper Juruá. In B. C. Labate & E. MacRae (Eds.), *Ayahuasca*, *ritual and religion in Brazil* (pp. 21-37). London: Equinox.
- Parascandola, J. (1995). The drug habit: The association of the word 'drug' with abuse in American history. In R. Porter & M. Teich (Eds.), *Drugs and narcotics in history* (pp. 156-167). Cambridge: Cambridge University Press.
- Parker, A. M. (1999). "Hearts uplifted and minds refreshed": The Women's Christian Temperance Union and the production of pure culture in the United States, 1880-1930. *Journal of Women's History, 11*(2), 135-158.
- Parker, C. (2001). A constitutional examination of the federal exemptions for Native American religious peyote use. *Brigham Young University Journal of Public Law*, 16(1), 89-112.
- Pass, S. (2004). *Parallel paths to constructivism: Jean Piaget and Lev Vygotsky*. Greenwich, CT: Information Age Publishing.
- Paulson, R. E. (1973). Women's suffrage and prohibition: A comparative study of equality and social control. Glenview, IL: Scott, Foresman & Company.
- Pavlac, B. A. (2009). Witch hunts in the western world: Persecution and punishment from the Inquisition through the Salem trials. Westport, CT: Greenwood Press.
- Peacock, S. (2010, September 3). Police quiz two following 'sacred' drugs swoop in Dartington [Electronic Version]. *South Devon Herald Express*. Devon, UK. Retreived from <a href="http://www.thisissouthdevon.co.uk/news/Police-quiz-following-sacred-drugs-swoop/article-2600610-detail/article.html">http://www.thisissouthdevon.co.uk/news/Police-quiz-following-sacred-drugs-swoop/article-2600610-detail/article.html</a>
- Pearson, H. (2004). Science and the war on drugs: A hard habit to break. *Nature*, *430*(6998), 394-395. Retrieved from: <a href="http://www.maps.org/media/nature072104.html">http://www.maps.org/media/nature072104.html</a>
- Pego, C. M., Hill, R. F., Solomon, G. W., Chisholm, R. M., & Ivey, S. E. (1995). Tobacco, culture, and health among American Indians: A historical review. *American Indian Culture and Research Journal*, 19(2), 143-164.
- Philips, J. E. (1983). African smoking and pipes. The Journal of African History, 24(3), 303-319.
- Piccalo, G. (2008, February 3). Ayahuasca: A strange brew. *Los Angeles Times*. Retrieved from <a href="http://www.mapinc.org/drugnews/v08/n138/a09.html?1319">http://www.mapinc.org/drugnews/v08/n138/a09.html?1319</a>
- Pinchbeck, D. (2002). Breaking open the head: A psychedelic journey into the heart of contemporary shamanism. New York: Broadway Books.

- Pincus, S. (1995). "Coffee politicians does create": Coffeehouses and Restoration political culture. *The Journal of Modern History*, 67(4), 807-834.
- Pinkley, H. V. (1969). Plant admixtures to ayahuasca, the South American hallucinogenic drink. *Lloydia*, *32*, 305-314.
- Plato. (1892). Laws. In B. Jowett (Ed.), The dialogues of Plato. New York: MacMillan & Co.
- Polari de Alverga, A. (1996). *Might the gods be alkaloids: Part IV, The consciousness of the shaman and the "miração"*. Retrieved from <a href="http://www.santodaime.org/archives/alex3.htm">http://www.santodaime.org/archives/alex3.htm</a>
- Polari de Alverga, A. (1999). Forest of visions: Ayahuasca, Amazonian spirituality, and the Santo Daime tradition (R. Workman, Trans.). Rochester, VT: Inner Traditions.
- Poovey, M. (1998). A history of the modern fact: Problems of knowledge in the sciences of wealth and society. Chicago: University of Chicago Press.
- Porter, R. (1985). The drinking man's disease: The 'pre-history' of alcoholism in Georgian Britain. *Addiction*, 80(4), 385-396.
- Porter, R. (1997). *The greatest benefit to mankind: A medical history of humanity*. New York: W.W. Norton & Company.
- Posner, M. (2006, July). Plants with soul: How a mind-bending plant-based drug made its way from the Amazon jungle to the US Supreme Court. *The Walrus*, 51-57.
- Poynton, C. (2000). Linguistics and discourse analysis. In C. Poynton & A. Lee (Eds.), *Culture & text: Discourse and methodology in social research and cultural studies* (pp. 19-39). Lanham, MD: Rowman & Littlefield Publishers.
- Prkachin, Y. (2007). "Chinks pay heavily for 'hitting pipe": The perception and enforcement of Canada's new drug laws in rural and northern British Columbia, 1908-30. *BC Studies: The British Columbia Quarterly*, 153, 73-105.
- Pross, P. A. (1995). Pressure groups: Talking chameleons. In M. S. Whittington & G. Williams (Eds.), *Canadian politics in the 1990s* (pp. 252-275). Toronto: Nelson Canada.
- Provine, D. M. (2007). *Unequal under law: Race in the war on drugs*. Chicago: University of Chicago Press.
- Purcell, N. (1985). Wine and wealth in ancient Italy. *The Journal of Roman Studies*, 75, 1-19.
- Radcliffe, S. A. (2007). Latin American indigenous geographies of fear: Living in the shadow of racism, lack of development, and antiterror measures. *Annals of the Association of American Geographers*, 97(2), 385-397.

- Raman, V. V. (2008). The scientific enterprise: Science: Some definitions and views. *Resonance: Journal of Science Education*, *13*(6), 596-605. Retrieved from <a href="http://www.ias.ac.in/resonance/June2008/p596-605.pdf">http://www.ias.ac.in/resonance/June2008/p596-605.pdf</a>
- Ramirez, F. O., & Boli, J. (1987). The political construction of mass schooling: European origins and worldwide institutionalization. *Sociology of Education*, 60(1), 2-17.
- Rappaport, R. A. (1999). *Ritual and religion in the making of humanity*. London: Cambridge University Press.
- Rawley, J. A., & Behrendt, S. D. (2005). *The transatlantic slave trade: A history*. Lincoln, NB: University of Nebraska Press.
- Razam, R. (2009). Aya: A shamanic odyssey. United States: Icaro Publishing.
- Reichel-Dolmatoff, G. (1975). *The shaman and the jaguar: A study of narcotic drugs among the Indians of Colombia*. Philadelphia, PA: Temple University Press.
- Rein, M. (1976). Social science and public policy. New York: Penguin.
- Reinarman, C. (1994). The social construction of drug scares. In P. Adler & P. Adler (Eds.), Constructions of deviance: Social power, context, and interaction (pp. 92-105). Belmont, CA: Wadsworth.
- Reinarman, C. (2005a). Addiction as accomplishment: The discursive construction of disease. *Addiction Research and Theory*, *13*(4), 307-320.
- Reinarman, C. (2005b). Librarians and other subversives: Truth can be a casualty of drug wars, too. *International Journal of Drug Policy*, *16*(1), 1-4.
- Reinarman, C., & Duskin, C. (1999). Dominant ideology and drugs in the media. In J. Ferrell & N. Websdale (Eds.), *Making trouble: Cultural constructions of crime, deviance, and control* (pp. 73-87). New York: Aldine de Gruyter.
- Reinarman, C., & Levine, H. G. (1997). The crack attack: Politics and media in the crack scare. In C. Reinarman & H. G. Levine (Eds.), *Crack in america: Demon drugs and social justice*. Berkeley, CA: University of California Press.
- Reissig, C.J., Strain, E.C., & Griffiths, R.R. (2009). Caffeinated energy drinks—a growing problem. *Drug and Alcohol Dependence*. *99*(1-3), 1-10.
- Reynaud-Maurupt, C., Cadet-Taïrou, A., & Zoll, A. (2009). The contemporary uses of hallucinogenic plants and mushrooms: A qualitative exploratory study carried out in France. *Substance Use and Misuse*, *44*(11), 1519-1552.

- Riba, J., Anderer, P., Morte, A., Urbano, G., Jané, F., & Saletu, B. (2002). Topographic pharmaco-EEG mapping of the effects of the South American psychoactive beverage *Ayahuasca* in healthy volunteers. *British Journal of Clinical Pharmacology*, *53*, 613-628.
- Riba, J., & Barbanoj, M. J. (2005). Bringing ayahuasca to the clinical research laboratory. *Journal of Psychoactive Drugs*, *37*(2), 219-230.
- Riba, J., Rodriguez-Fornells, A., Strassman, R. J., & Barbanoj, M. J. (2001). Psychometric assessment of the Hallucinogen Rating Scale in two different populations of hallucinogen users. *Drug and Alcohol Dependence*, 62(3), 215-223.
- Riba, J., Rodriguez-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*, 85-95.
- Riba, J., Romero, S., Grasa, E., Mena, E., Carrió, I., & Barbanoj, M. J. (2006). Increased frontal and paralimbic activation following ayahuasca, the pan-amazonian inebriant. *Psychopharmacology*, *186*(1), 93-98.
- Riba, J., Valle, M., Urbano, G., Yritia, M., Morte, A., & Barbanoj, M. J. (2003). Human pharmacology of ayahuasca: Subjective and cardiovascular effects, monoamine metabolite excretion, and pharmacokinetics. *Journal of Pharmacology and Experimental Therapeutics*, 306(1), 73-83.
- Richler, N. (2010, July 27). Ayahuasca: That South American drug everyone's raving about [Electronic Version]. *Maclean's*. Toronto. Retrieved from <a href="http://www2.macleans.ca/2010/07/27/loonies-in-lotus-land/">http://www2.macleans.ca/2010/07/27/loonies-in-lotus-land/</a>
- Rinella, M. A. (2010). *Pharmakon: Plato, drug culture, and identity in ancient Athens*. Lanham, MD: Lexington Books.
- Rittner, S. (2007). Sound-trance-healing: The sound and pattern medicine of the Shipibo in the Amazon lowlands of Peru. *Music Therapy Today*, 8(2), 196-235.
- Ritzer, G. (1999). *Enchanting a disenchanted world: Revolutionizing the means of consumption*. Thousand Oaks, CA: Pine Forge Press.
- Rivier, L., & Lindgren, J. E. (1972). Ayahuasca, the South American hallucinogenic drink, an ethnobotanical and chemical investigation. *Economic Botany*, *26*, 101–109.
- Roberts, A. (2002). Administrative discretion and the Access to Information Act: An "internal law" on open government? *Canadian Public Administration*, 45(2), 175-194.
- Roberts, J. V., & Doob, A. N. (1997). Race, ethnicity, and criminal justice in Canada. *Crime and Justice*, 21, 469-522.

- Roberts, M. J. D. (2009). The politics of professionalization: MPs, medical men, and the 1858 Medical Act. *Medical History*, *53*(1), 37-56.
- Roberts, T. B. (1983). New learning. In L. Grinspoon & J. B. Bakalar (Eds.), *Psychedelic reflections* (pp. 234-252). New York: Human Sciences Press, Inc.
- Roberts, T. B. (2003). A new relationship with our minds—multistate mind. *Thresholds in Education*, 24(3), 36-40.
- Roberts, T.B. (2006). Psychedelic horizons. Charlottesville, VA: Imprint Academic.
- Rochefort, D. A., & Cobb, R. W. (1994). Problem definition: An emerging perspective. In D. A. Rochefort & R. W. Cobb (Eds.), *The politics of problem definition: Shaping the policy agenda* (pp. 1-31). Lawrence, KS: University of Kansas Press.
- Rock, R. T. (2003, November 27). Addicts need treatment but also need to be isolated from society [Letter to the editor, electronic version]. *Mission City Record*. Retrieved from <a href="http://www.mapinc.org/drugnews/v03/n1851/a01.html">http://www.mapinc.org/drugnews/v03/n1851/a01.html</a>
- Rødner, S. (2005). "I am not a drug abuser, I am a drug user": A discourse analysis of 44 drug users' construction of identity. *Addiction Research and Theory*, 13(4), 333-346.
- Roe, P. G. (1982). *The cosmic zygote: Cosmology in the Amazon basin*. New Brunswick, NJ: Rutgers University Press.
- Rogers, R., Malancharuvil-Berkes, E., Mosley, M., Hui, D., & O'Garro-Joseph, G. (2005). Critical discourse analysis in education: A review of the literature. *Review of Educational Research*, 75(3), 365-416.
- Rojek, C. (2000). Mass tourism or the re-enchantment of the world? Issues and contradictions in the study of travel. In M. Gottdiener (Ed.), *New forms of consumption* (pp. 51-70). Lanham, MD: Rowman & Littlefield Publishers.
- Rojo, L. M. (2001). New developments in discourse analysis: Discourse as social practice. *Folia Lingustica*, *35*(1/2), 41-78.
- Room, R. (1999). The rhetoric of international drug control. *Substance Use & Misuse*, *34*(12), 1689-1707.
- Room, R. (2005). Stigma, social inequality and alcohol and drug use. *Drug and Alcohol Review*, 24(2), 143-155.
- Rosch, E. H. (1973). Natural categories. *Cognitive Psychology*, 4(3), 328-350.
- Rosen, G. (1958). A history of public health. New York: MD Publications.

- Roszack, T. (1969). The making of a counter culture: Reflections on the technocratic society and its youthful opposition. Garden City, NY: Doubleday.
- Rothkopf, D. (2008). Superclass: The global power elite and the world they are making. Toronto: Viking Canada.
- Rothman, T. (1972). De Laguna's commentaries on hallucinogenic drugs and witchcraft in Dioscorides' Materia Medica. *Bulletin of the History of Medicine*, *46*(6), 562-567.
- Rouget, G. (1985). *Music and trance: A theory of the relations between music and possession*. Chicago: University of Chicago Press.
- Ruck, C., Bigwood, J., Staples, D., Ott, J., & Wasson, R. G. (1979). Entheogens. *The Journal of Psychedelic Drugs*, 11(1-2), 145-146.
- Rudgley, R. (1994). *Essential substances: A cultural history of intoxicants in society*. New York: Kodansha International.
- Rushkoff, D. (1994). *Cyberia: Life in the trenches of hyperspace*. San Francisco, CA: HarperSan Francisco.
- Rushkoff, D. (2009). *Life inc.: How the world became a corporation and how to take it back.*New York: Random House.
- Russell, J. B. (1980). *A history of witchcraft: Sorcerers, heretics, and pagans*. London: Thames and Hudson.
- Russo, E. B. (2007). History of cannabis and its preparations in saga, science, and sobriquet. *Chemistry & Biodiversity*, 4(8), 1614-1648.
- Rutland, R. A. (1955). *The birth of the Bill of Rights, 1776-1791*. Chapel Hill, NC: University of North Carolina Press.
- Salak, K. (2006). Peru: Hell and back [Electronic Version]. *National Geographic Adventure*. Retrieved from: http://www.nationalgeographic.com/adventure/0603/features/peru.html
- Saler, M. (2006). Modernity and enchantment: A historiographic review. *American Historical Review*, 111(3), 692-716.
- Salimpoor, V. N., Benovoy, M., Larcher, K., Dagher, A., & Zatorre, R. J. (2011). Anatomically distinct dopamine release during anticipation and experience of peak emotion to music. *Nature Neuroscience*. Advance online publication. doi:10.1038/nn.2726
- Salomon, G. (Ed.). (1993). Distributed cognitions: Psychological and educational considerations. New York: Cambridge University Press.

- Samorini, G. (2002). Animals and psychedelics: The natural world and the instinct to alter consciousness. Rochester, VT: Park Street Press.
- Santelli, J. S. (2008). Medical accuracy in sexuality education: Ideology and the scientific process. *American Journal of Public Health*, *98*(10), 1786-1792.
- 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.
- Schaefer, S. B. (1996). The crossing of the souls: Peyote, perception and meaning among the Huichol Indians. In S. B. Schaefer & P.T. Furst (Eds.), *People of the peyote: Huichol Indian history, religion, & survival* (pp. 138-168). Albuquerque: University of New Mexico Press.
- Schaepe, H. (2001). *International control of the preparation "ayahuasca"—fax to Ministry of Public Health, the Netherlands*. Retrieved from:

  <a href="http://www.erowid.org/chemicals/ayahuasca/images/archive/ayahuasca\_law\_undcp\_fax1.jpg">http://www.erowid.org/chemicals/ayahuasca/images/archive/ayahuasca\_law\_undcp\_fax1.jpg</a>
- Schep, L.E., Slaughter, R.L., & Beasley, D.M.G. (2009). Nicotinic plant poisoning. *Clinical Toxicology*. 47(8), 771-781.
- Scheurich, J. J., & McKenzie, K. B. (2005). Foucault's methodologies: Archaeology and genealogy. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed., pp. 841-868). Thousand Oaks, CA: Sage Publications.
- Schinke, S., Brounstein, P., & Gardner, S. E. (2002). *Science-based prevention programs and principles*. Rockville, MD: US Substance Abuse and Mental Health Service Administration.
- Schivelbusch, W. (1992). *Tastes of paradise: A social history of spices, stimulants and intoxicants* (D. Jacobson, Trans.). New York: Pantheon Books.
- Schmid, J. T., Jungaberle, H., & Verres, R. (2010). Subjective theories about (self-) treatment with ayahuasca. *Anthropology of Consciousness*, 21(2), 188-204.
- Schmidt, T. K. (2007). *Morality as practice: The Santo Daime, an eco-religious movement in the Amazonian rainforest.* Uppsala, Sweden: Uppsala University Press.
- Schön, D. A. (1993). Generative metaphor: A perspective on problem-setting in social policy. In A. Ortony (Ed.), *Metaphor and thought* (2nd ed., pp. 137-163). Cambridge: Cambridge University Press.
- Schultes, R. E. (1957). The identity of the Malipighiaceous narcotics of South America. *Botanical Museum Leaflets, Harvard University*, 18(1), 1-56.

- Schultes, R. E. (1968). Some impacts of Spruce's explorations on modern phytochemical research. *Rhodora*, 70(783), 313-339.
- Schultes, R. E., & Hofmann, A. (1992). *Plants of the gods: Their sacred, healing, and hallucinogenic powers*. Rochester, VT: Healing Arts Press.
- Schultes, R. E., & Raffauf, R. F. (2004). *Vine of the soul: Medicine men, their plants and rituals in the Colombian Amazonia* (2nd ed.). Santa Fe, NM: Synergetic Press.
- Schumacher, E. F. (1973). *Small is beautiful: Economics as if people mattered*. London: Blond and Briggs.
- Searle, J. R. (2004). Mind: A brief introduction. Oxford: Oxford University Press.
- Seddon, T. (2010). *A history of drugs: Drugs and freedom in the liberal age*. New York: Routledge.
- Seligman, M. E. P. (2009, August 7). *Positive education*. Paper presented at the American Psychological Association Annual Conference. Retrieved from <a href="http://www.apa.org/news/press/releases/2009/08/positive-educate.aspx">http://www.apa.org/news/press/releases/2009/08/positive-educate.aspx</a>
- Sessa, B. (2005). Can psychedelics have a role in psychiatry once again? *British Journal of Psychiatry 186*, 457-458.
- Seymour, M. (Ed.). (2004). *Educating for humanity: Rethinking the purposes of education*. Boulder, CO: Paradigm Publishers.
- Shannon, T. R. (1989). *An introduction to the world-system perspective*. Boulder, CO: Westview Press.
- Shanon, B. (1998). Ayahuasca visions: A comparative cognitive investigation. In C. Rätsch & J. Baker (Eds.), *Yearbook of Ethnomedicine and the Study of Consciousness* (Vol. 7, pp. 227-250). Berlin: VWB Verlag.
- Shanon, B. (2001). Altered temporality. *Journal of Consciousness Studies*, 8(1), 35-58.
- Shanon, B. (2002). The antipodes of the mind: Charting the phenomenology of the ayahuasca experience. Oxford: Oxford University Press.
- Shanon, B. (2010). The epistemics of ayahuasca visions. *Phenomenology and the Cognitive Sciences*, 9(2), 263-280.
- Shapin, S. (1988). The house of experiment in seventeenth-century England. *Isis*, 79(3), 373-404.

- Shapin, S. (1996). The scientific revolution. Chicago: University of Chicago Press.
- Sharp, E. B. (1994). Paradoxes of national antidrug policymaking. In D. A. Rochefort & R. W. Cobb (Eds.), *The politics of problem definition: Shaping the policy agenda*. Lawrence, KS: University of Kansas Press.
- Sharpe, T. (2001, October 28). Hallucinogenic tea case starts in Albuquerque. *The Santa Fe New Mexican*. Santa Fe, NM. Retrieved from <a href="http://www.mapinc.org/drugnews/v01/n1848/a09.html">http://www.mapinc.org/drugnews/v01/n1848/a09.html</a>
- Sharpe, T. (2009, August 27). Hoasca-drinking group seeks to build temple in Arroyo Hondo [Electronic Version]. *Santa Fe New Mexican*. Retrieved from <a href="http://www.santafenewmexican.com/Local%20News/Hoasca-drinking-group-seeks-to-build-temple-in-Arroyo-Hondo">http://www.santafenewmexican.com/Local%20News/Hoasca-drinking-group-seeks-to-build-temple-in-Arroyo-Hondo</a>
- Sheehan, N. M. (1980). Temperance, education and the WCTU in Alberta, 1905-1930. *Journal of Educational Thought*, 14(2), 108-124.
- Sheehan, N. M. (1984). The WCTU and educational strategies on the Canadian Prairie. *History of Education Quarterly*, 24(1), 101-119.
- Shepherd, G. H. (1998). Psychoactive plants and ethnopsychiatric medicines of the Matsigenka. *Journal of Psychoactive Drugs*, *30*(4), 321-332.
- Sheridan, R. B. (1974). Sugar and slavery: An economic history of the British West Indies, 1623-1775. Baltimore, MD: Johns Hopkins University Press.
- Sherratt, A. (2007a). Alcohol and its alternatives: Symbol and substance in pre-industrial cultures. In J. Goodman, P. E. Lovejoy & A. Sherratt (Eds.), *Consuming habits: Global and historical perspectives on how cultures define drugs* (2nd ed., pp. 11-45). New York: Routledge.
- Sherratt, A. (2007b). Introduction: Peculiar substances. In J. Goodman, P. E. Lovejoy & A. Sherratt (Eds.), *Consuming habits: Global and historical perspectives on how cultures define drugs* (2nd ed., pp. 1-10). New York: Routledge.
- Shibuya, K., Ciecierski, C., Guindon, E., Bettcher, D. W., Evans, D. B., & Murray, C. J. L. (2003). WHO Framework Convention on Tobacco Control: Development of an evidence based global public health treaty. *British Medical Journal*, *327*(7407), 154-157.
- Shiva, V. (1989). Staying alive: Women, ecology, and development. London: Zed Books.
- Shulgin, A. (1976). Profiles of psychedelic drugs. I. DMT. *Journal of Psychedelic Drugs*, 8(2), 167-168.

- Shulgin, A., & Shulgin, A. (1991). *PIHKAL: A chemical love story*. Berkley, CA: Transform Press.
- Shulgin, A., & Shulgin, A. (1997). TIHKAL: The continuation. Berkeley, CA: Transform Press.
- Shusterman, R. (1999). Somaesthetics: A disciplinary proposal. *The Journal of Aesthetics and Art Criticism*, *57*(3), 299-313.
- Shusterman, R. (2008). *Body consciousness: A philosophy of mindfulness and somaesthetics*. New York: Cambridge University Press.
- Sidky, H. (1997). Witchcraft, lycanthropy, drugs and disease: An anthropological study of the European witch hunts. New York: Peter Lang Publishing.
- Siegel, R. K. (2005). *Intoxication: The universal drive for mind-altering substances* (2nd ed.). Rochester: Park Street Press.
- Silva Sá, D. B. G. (2010). Ayahuasca: The consciousness of expansion. In B. C. Labate & E. MacRae (Eds.), *Ayahuasca, ritual and religion in Brazil* (pp. 161-189). London: Equinox.
- Simeon, R. (1976). Studying public policy. *Canadian Journal of Political Science*, 9(4), 548-580.
- Simon, S. (2009, September 16). Psychedelic tea brews unease [Electronic Version]. *Wall Street Journal*. Retrieved from http://online.wsj.com/article/SB125306591407914359.html
- Sinha, C. (1989). Reading Vygotsky. *History of the Human Sciences*, 2(3), 309-331.
- Sklerov, J., Levine, B., Moore, K. A., King, T., & Fowler, D. (2005). A fatal intoxication following the ingestion of 5-methoxy-N,N-dimethyltryptamine in an ayahuasca preparation. *Journal of Analytical Toxicology*, 29(8), 838-841.
- Small, D. (2007). Fools rush in where angels fear to tread: Playing god with Vancouver's supervised injection facility in the political borderland. *International Journal of Drug Policy*, *18*(1), 18-26.
- Smeeding, T. M. (2005). Public policy, economic inequality, and poverty: The United States in comparative perspective. *Social Science Quarterly*, 86(s1), 955-983.
- Smith, D. E. (1969). Runaways and their health problems in Haight-Ashbury during the summer of 1967. *American Journal of Public Health*, *59*(11), 2046-2050. Retrieved from <a href="http://www.aiph.org/cgi/reprint/59/11/2046">http://www.aiph.org/cgi/reprint/59/11/2046</a>
- Smith, H., & Snake, R. (Eds.). (1996). *One nation under god: The triumph of the Native American Church*. Santa Fe, NM: Clear Light Publishers.

- Smith, L.T. (1999). *Decolonizing methodologies: Research and indigenous peoples*. London: Zed Books.
- Smith, W. D. (1992). Complications of the commonplace: Tea, sugar, and imperialism. *Journal of Interdisciplinary History*, 23(2), 259-278.
- Sneader, W. (2005). Drug discovery: A history. Hoboken, NJ: Wiley.
- Snow, C. P. (1964). The two cultures: And a second look. New York: New American Library.
- Snow, S. J. (2008). *Blessed days of anaesthesia: How anaesthetics changed the world*. Oxford: Oxford University Press.
- Soares, L. E. (2010). Santo Daime in the context of the new religious consciousness. In B. C. Labate & E. MacRae (Eds.), *Ayahuasca*, *ritual and religion in Brazil* (pp. 65-72). London: Equinox.
- Solomon, R. C. (1983). *In the spirit of Hegel: A study of G.W.F. Hegel's Phenomenology of Spirit*. Oxford: Oxford University Press.
- Solomon, R. & Green, M. (1982). The first century: The history of nonmedical opiate use and control policies in Canada, 1870-1970. *University of Western Ontario Law Review*, 20(2), 307-336.
- Sommerville, C. J. (1996). *The news revolution in England: Cultural dynamics of daily information*. New York: Oxford University Press.
- Soni, V. (2005). Freedom from subordination: Race, religion, and the struggle for sacrament. *Temple Political & Civil Rights Law Review*, *15*(1), 33-64.
- Sorell, T. (1991). Scientism: Philosophy and the infatuation with science. New York: Routledge.
- Speaker, S. L. (2001). "The struggle of mankind against its deadliest foe": Themes of countersubversion in anti-narcotic campaigns, 1920-1940. *Journal of Social History*, *34*(3), 591-610.
- Speaker, S. L. (2002). Creating a monster: Newspapers, magazines, and America's drug problem. *Molecular Interventions*, 2(4), 201-204.
- Spruce, R. (1908). Notes of a botanist on the Amazon and Andes. London: MacMillan.
- Standish, L. (2010, April 18). *Ayahuasca, science and medicine*. Paper presented at the MAPS Psychedelic Science in the 21st Century conference, San Jose, CA.
- Stannard, D. E. (1992). *American holocaust: Columbus and the conquest of the New World*. New York: Oxford University Press.

- Starr, P. (2004). *The creation of the media: Political origins of modern communications*. New York: Basic Books.
- Stevens, A., Berto, D., Heckmann, W., Kerschl, V., Oeuvray, K., van Ooyen, M., et al. (2005). Quasi-compulsory treatment of drug dependent offenders: An international literature review. *Substance Use & Misuse*, 40(3), 269-283.
- Sting. (2003). Broken music: A memoir. New York: Dial Press.
- St. John, G. (Ed.). (2004). Rave culture and religion. London: Routledge.
- St. John, G. (2006). Electronic dance music culture and religion: An overview. *Culture and Religion*, 7(1), 1-25.
- Stockwell, T. (2006). Alcohol supply, demand and harm reduction: What is the strongest cocktail? *International Journal of Drug Policy*, 17(4), 269-277.
- Stone, D. (2001). Think tanks, global lesson-drawing and networking social policy ideas. *Global Social Policy*, *1*(3), 338-360.
- Stone, D. A. (2002). *Policy paradox: The art of political decision making*. New York: Norton.
- Storti, C. C., & Grauwe, P. D. (2009). Globalization and the price decline of illicit drugs. *International Journal of Drug Policy*, 20(1), 48-61.
- Strassman, R. J. (1991). Human hallucinogenic drug research in the United States: A present-day case history and a review of the process. *Journal of Psychoactive Drugs*, *23*(1), 29-38.
- Strassman, R. J. (1995). Hallucinogenic drugs in psychiatric research and treatment: Perspectives and prospects. *Journal of Nervous and Mental Disease*, *183*(3), 127-138.
- Strassman, R. J. (2001). DMT: The spirit molecule. Rochester, VT: Park Street Press.
- Strassman, R. J., & Qualls, C. R. (1994). Dose-response study of N,N-dimethyltryptamine in humans. I. Neuroendocrine, autonomic, and cardiovascular effects. *Archives of General Psychiatry*, *51*(2), 85-97.
- Strassman, R. J., Qualls, C. R., Uhlenhuth, E. H., & Kellner, R. (1994). Dose-response study of N,N-dimethyltryptamine in humans. II. Subjective effects and preliminary results of a new rating scale. *Archives of General Psychiatry*, *51*(2), 98-108.
- Streatfeild, D. (2001). Cocaine: An unauthorized biography. New York: St. Martin's Press.
- Stuart, M. (2006, September 25). Strange brew. Western Standard.

- Suzuki, D. T., & Taylor, D. (2009). The big picture: Reflections on science, humanity, and a quickly changing planet. Vancouver, BC: Greystone Books.
- Swift, W., Copeland, J., & Lenton, S. (2000). Cannabis and harm reduction. *Drug and Alcohol Review*, 19(1), 101-112.
- Syzmanski, A.-M. E. (2003). *Pathways to prohibition: Radicals, moderates, and social movement outcomes*. Durham, NC: Duke University Press.
- Szara, S. I. (1956). Dimethyltryptamin: Its metabolism in man; the relations of its psychotic effect to the serotonin metabolism. *Experientia*, 15(6), 441-442.
- Szasz, T. (2007). *Coercion as cure: A critical history of psychiatry*. New Brunswick, NJ: Transaction Publishers.
- Szreter, S. (2009). History, policy and the social history of medicine. *Social History of Medicine*, 22(2), 235-244.
- Takahashi, M., & Olaveson, T. (2003). Music, dance and raving bodies: Raving as spirituality in the central Canadian rave scene. *Journal of Ritual Studies*, 17(2), 72-96.
- Takiwasi. (2007). Takiwasi: Center for the Treatment of Drug and Alcohol Addiction and the Research of Traditional Medicines. Retrieved from: <a href="http://www.takiwasi.com">http://www.takiwasi.com</a>
- Talbot, J. M. (1997). The struggle for control of a commodity chain: Instant coffee from Latin America. *Latin American Research Review*, 32(2), 117-135.
- Tart, C. T. (Ed.). (1969). *Altered states of consciousness: A book of readings*. New York: John Wiley & Sons.
- Tart, C. T. (1991). Influences of previous psychedelic drug experiences on students of Tibetan Buddhism: A preliminary exploration. *The Journal of Transpersonal Psychology*, 23(2), 139-173.
- Taylor, A. H. (1969). *American diplomacy and the narcotics traffic, 1900-1939*. Durham, NC: Duke University Press.
- Taylor, C. (1991). The malaise of modernity. Concord, ON: House of Anansi Press.
- Taylor, S. (2008). Medicalizing cannabis—science, medicine and policy, 1950-2004: An overview of a work in progress. *Drugs: Education, Prevention and Policy*, 15(5), 462-474.
- The Children of Juramidam. (2010). Geneaology of the Santo Daime doctrine. Retrieved from <a href="http://www.afamiliajuramidam.org/english/the-children-of-juramidam/genealogy.htm">http://www.afamiliajuramidam.org/english/the-children-of-juramidam/genealogy.htm</a>

- Thornton, S. (1996). *Club cultures: Music, media and subcultural capital*. Hanover, NH: Wesleyan University Press/University Press of New England.
- Thoumi, F. E. (2002). Can the United Nations support "objective" and unhampered illicit drug policy research?: A testimony of a UN-funded researcher. *Crime, Law and Social Change*, 38(2), 161-183.
- Tobler, N. S., & Stratton, H. H. (1997). Effectiveness of school-based drug prevention programs: A meta-analysis of the research. *The Journal of Primary Prevention*, *18*(1), 71-128.
- Topik, S. (2009). Coffee as a social drug. Cultural Critique, 71, 81-106.
- Townsley, G. (1993). Song paths: The ways and means of Yaminahua shamanic knowledge. *L'homme*, 33(126-128), 449-468.
- Transform Drug Policy Foundation. (2009). *After the war on drugs: Blueprint for regulation*. Retrieved from <a href="http://www.tdpf.org.uk/Transform">http://www.tdpf.org.uk/Transform</a> Drugs Blueprint.pdf
- Treasury Board of Canada Secretariat. (2010). Access to Information. Retrieved from <a href="http://www.tbs-sct.gc.ca/atip-aiprp/tools/administration-application-eng.asp">http://www.tbs-sct.gc.ca/atip-aiprp/tools/administration-application-eng.asp</a>
- Trichter, S., Klimo, J., & Krippner, S. (2009). Changes in spirituality among ayahuasca ceremony novice participants. *Journal of Psychoactive Drugs*, 41(2), 121-134.
- Tupper, K. W. (2002a). Entheogenic education: An interdisciplinary investigation into the educational potential of plant teachers. Unpublished MA thesis, Simon Fraser University, Burnaby, BC.
- Tupper, K. W. (2002b). Entheogens and existential intelligence: The use of plant teachers as cognitive tools. *Canadian Journal of Education*, *27*(4), 499-516.
- Tupper, K. W. (2003). Entheogens & education: Exploring the potential of psychoactives as educational tools. *Journal of Drug Education and Awareness*, 1(2), 145-161.
- Tupper, K. W. (2008a). Drugs, discourses and education: A critical discourse analysis of a high-school drug education text. *Discourse: Studies in the Cultural Politics of Education*, 29(2), 223-238.
- Tupper, K. W. (2008b). Teaching teachers to just say "know": Reflections on drug education. *Teaching & Teacher Education, 24*(2), 356-367.
- Tupper, K. W. (2008c). The globalization of ayahuasca: Harm reduction or benefit maximization? *International Journal of Drug Policy*, 19(4), 297-303.

- Tupper, K. W. (2009a). Ayahuasca healing beyond the Amazon: The globalization of a traditional indigenous entheogenic practice. *Global Networks: A Journal of Transnational Affairs*, *9*(1), 117-136.
- Tupper, K. W. (2009b). Entheogenic healing: The spiritual effects and therapeutic potential of ceremonial ayahuasca use. In J. H. Ellens (Ed.), *The healing power of spirituality: How religion helps humans thrive* (Vol. 3, pp. 269-282). Westport, CT: Praeger.
- Tupper, K. W. (forthcoming). Ayahuasca in Canada: Cultural phenomenon and policy issue. In B. C. Labate & H. Jungaberle (Eds.), *The internationalization ayahuasca*. Göttingen: Hofgrefe.
- Turner, D. (2006). *This is not a peace pipe: Towards a critical indigenous philosophy*. Toronto: University of Toronto Press.
- Turner, V. W. (1969). *The ritual process: Structure and anti-structure*. Ithaca, NY: Cornell University Press.
- Turner, V. W. (1977). Variations on a theme of liminality. In S. F. Moore & B. G. Myerhoff (Eds.), *Secular ritual* (pp. 36-52). Amsterdam: Van Gorcum & Co.
- Tyrrell, I. (1991). Women and temperance in international perspective: The world's WCTU, 1880s-1920s. In S. Barrows & R. Room (Eds.), *Drinking: Behavior and belief in modern history* (pp. 217-240). Berkeley, CA: University of California Press.
- Uchida, C. D. (2010). The development of the American police: An historical overview. In R. G. Dunham & G. P. Alpert (Eds.), *Critical issues in policing: Contemporary readings* (6th ed., pp. 17-36). Long Grove, IL: Waveland Press, Inc.
- Udenfriend, S., Witkop, B., Redfield, B., & Weissbach, H. (1958). Studies with reversible inhibitors of monoamine oxidase: Harmaline and related compounds. *Biochemical Pharmacology*, *1*, 160-165.
- UDV-USA. (2005). Frequently Asked Questions. Retrieved from: http://www.udvusa.com/faq.php
- Union de Medicos Indigenas Yageceros de la Amazonia Colombiana. (1999). The Yurayaco Declaration. Retrieved from: <a href="http://amazon.dead-city.org/umiyac-declaration.html">http://amazon.dead-city.org/umiyac-declaration.html</a>
- United Nations. (1961). *Single Convention on Narcotic Drugs*. New York: United Nations. Retrieved from <a href="http://www.unodc.org/pdf/convention\_1961\_en.pdf">http://www.unodc.org/pdf/convention\_1961\_en.pdf</a>
- United Nations. (1971). *Convention on Psychotropic Substances*. New York: United Nations. Retrieved from www.unodc.org/pdf/convention 1971 en.pdf

- United Nations. (1988). Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. New York: United Nations. Retrieved from <a href="http://www.unodc.org/pdf/convention">http://www.unodc.org/pdf/convention</a> 1988 en.pdf
- United Nations Children's Fund. (2009). Childinfo: Education [Electronic Version]. *Childinfo: Monitoring the situation of children and women*. Retrieved from <a href="http://www.childinfo.org/education.html">http://www.childinfo.org/education.html</a>
- United Nations Non-Governmental Liaison Service. (2008). *UN-Civil Society engagement: Year in review*, 2007. Geneva: Author. Retrieved from <a href="http://www.un-ngls.org/IMG/pdf/Final">http://www.un-ngls.org/IMG/pdf/Final</a> Year in Review 2007.pdf
- United Nations Office on Drugs and Crime. (2009). *World Drug Report 2009*. Vienna: Author. Retrieved from <a href="http://www.unodc.org/documents/wdr/WDR\_2009/WDR2009\_eng\_web.pdf">http://www.unodc.org/documents/wdr/WDR\_2009/WDR2009\_eng\_web.pdf</a>
- Unwin, P. T. H. (1991). *Wine and the vine: An historical geography of viticulture and the wine trade*. New York: Routledge.
- Urbanowski, K. A. (2010). Coerced addiction treatment: Client perspectives and the implications of their neglect. *Harm Reduction Journal*, 7(13), 1-10.
- Valverde, M. (1991). *The age of light, soap, and water: Moral reform in English Canada, 1885-1925*. Toronto: McClelland & Stewart.
- Valverde, M. (1998). *Diseases of the will: Alcohol and the dilemmas of freedom*. New York: Cambridge University Press.
- van der Geest, S., & White, S. (1989). The charm of medicines: Metaphors and metonyms. *Medical Anthropology Quarterly*, *3*(4), 345-367.
- Van der Plas, A. (forthcoming). Legal situation of the Santo Daime in the Netherlands and internationally. In B. C. Labate & H. Jungaberle (Eds.), *The internationalization ayahuasca*. Göttingen: Hofgrefe.
- Vargas, R. (2002). The anti-drug policy, aerial spraying of illicit crops and their social, environmental and political impacts on Colombia. *Journal of Drug Issues*, 32(1), 11-60.
- Vasquez, G. R. (1998). Education in the modern west and the Andean culture. In F. Apffel-Marglin (Ed.), *The spirit of regeneration: Andean culture confronting western notions of development* (pp. 172-192). New York: Zed Books.
- Veit, J. (1998, April). The drug war industrial complex: Noam Chomsky interviewed by John Veit [Electronic Version]. *High Times*. Retrieved from <a href="http://www.chomsky.info/interviews/199804--.htm">http://www.chomsky.info/interviews/199804--.htm</a>

- Verhoeven, C. (1972). The philosophy of wonder (M. Foran, Trans.). New York: Macmillan.
- Versluis, A. (1993). American transcendentalism and Asian religions. Oxford: Oxford University Press.
- Vesterfelt, K. (2008, April 7). Affidavit sworn for *PHS Community Services Society, Wilson and Tomic v. Attorney General of Canada*.
- Vienna NGO Committee on Narcotic Drugs. (2008). *Beyond 2008 Declaration*. Vienna: Author. Retrieved from <a href="http://www.vngoc.org/images/uploads/file/BEYOND%202008%20DECLARATION%20AND%20RESOLUTIONS%20DEFINITIVE.pdf">http://www.vngoc.org/images/uploads/file/BEYOND%202008%20DECLARATION%20AND%20RESOLUTIONS%20DEFINITIVE.pdf</a>
- Vokey, D. (2001). Longing to connect: Spirituality in public schools. *Paideusis*, 13(2), 23-41.
- Vokey, D. (2008). Hearing, contemplating, meditating: In search of the transformative integration of heart and mind. In C. Eppert & H. Wang (Eds.), *Cross-cultural studies in education: Eastern thought, educational insights* (pp. 287-312). Mahwah, NJ: Lawrence-Erlbaum.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1997). *The collected works of L.S. Vygotsky* (R. van der Veer, Trans. Vol. 3). New York: Plenum Press.
- Wakeford v. Canada. (1998). O.J. No. 3522. (Ontario Court of Justice, General Division).
- Wakeford v. The Queen. (1999). O.J. No. 1574. (Ontario Superior Court of Justice, Toronto Region).
- Wallerstein, I. (1991). *Unthinking social science: The limits of nineteenth-century paradigms*. Cambridge, UK: Polity Press.
- Wallerstein, I. (2004). *The uncertainties of knowledge*. Philadelphia, PA: Temple University Press.
- Walsh, C. (2010). Development as *buen vivir*: Institutional arrangements and (de)colonial entanglements. *Development*, 53(1), 15-21.
- Walsh, R., & Grob, C. S. (Eds.). (2005). *Higher wisdom: Eminent elders explore the continuing impact of psychedelics*. Albany, NY: State University of New York Press.
- Walton, S. (2001). Out of it: A cultural history of intoxication. New York: Harmony Books.

- Warner, J. (1994). 'Resolv'd to drink no more': Addiction as a preindustrial construct. *Journal of Studies on Alcohol*, 55(6), 685-691.
- Warner, J. (2002). Craze: Gin and debauchery in an age of reason. New York: Random House.
- Warner, J., Her, M., Gmel, G. & Rehm, J. (2001). Can legislation prevent debauchery? Mother gin and public health in 18th-century England. *American Journal of Public Health*, 91(3), 375-384.
- Warner, M. (2002). Publics and counterpublics. *Public Culture*, 14(1), 49-90.
- Warren, J. (2008). *The head trip: Adventures on the wheel of consciousness*. Toronto: Vintage Canada.
- Warren, J. (2010, December 16). Tourists of consciousness. Maisonneuve Magazine. (38), 34-41.
- Warren, R. J. (2004). Fatal nicotine intoxication resulting from the ingestion of "ayahuasca". *Journal of Analytical Toxicology*, 28, 287.
- Wasson, R. G. (1968). *Soma: The divine mushroom of immortality*. New York: Harcourt Brace Jovanovich.
- Wasson, R. G. (1980). *The wondrous mushroom: Mycolatry in Mesoamerica*. New York: McGraw-Hill.
- Wasson, R. G., Hofmann, A., & Ruck, C. P. (1978). *The road to Eleusis: Unveiling the secret of the mysteries*. New York: Harcourt Brace Jovanovich.
- Wasson, R. G., Kramrisch, S., Ruck, C., & Ott, J. (1986). *Persephone's quest: Entheogens and the origins of religion*. New Haven: Yale University Press.
- Wazana, A. (2000). Physicians and the pharmaceutical industry: Is a gift ever just a gift? *Journal of the American Medical Association*, 283(3), 373-380.
- Weaver, R. K. (1989). The changing world of think tanks. *Political science and politics*, 22(3), 563-578.
- Weber, J. (2006). Strassburg, 1605: The origins of the newspaper in Europe. *German History*, 24(3), 387-412.
- Weber, M. (1957). From Max Weber: Essays in sociology (H. H. Gerth & C. W. Mills, Trans.). London: Routledge & K. Paul.
- Weber, M. (2004). Politics as a vocation (R. Livingstone, Trans.). In D. Owen & T. B. Strong (Eds.), *The vocation lectures: "Science as a vocation," "Politics as a vocation"* (pp. 32-94). Indianapolis, IN: Hackett Publishing Company. (Original work published 1919)

- Weil, A. (1972). *The natural mind: A new way of looking at drugs and the higher consciousness*. Boston: Houghton Mifflin.
- Weil, A. (1980). *The marriage of the sun and moon: A quest for unity in consciousness*. Boston, MA: Houghton Mifflin.
- Weinberg, B. A., & Bealer, B. K. (2002). The world of caffeine: The science and culture of the world's most popular drug. New York: Routledge.
- Weinberg, D. (2000). "Out there": The ecology of addiction in drug abuse treatment discourse. *Social Problems*, 47(4), 606-621.
- Weiss, G., & Wodak, R. (2003). Introduction: Theory, interdisciplinarity and critical discourse analysis. In G. Weiss & R. Wodak (Eds.), *Critical discourse analysis: Theory and interdisciplinarity* (pp. 1-32). New York: Palgrave MacMillan.
- Weiss, G. L. (2006). *Grassroots medicine: The story of America's free health clinics*. Lanham, MD: Rowman & Littlefield Publishers.
- Wells, S. (2010). *Pandora's seed: The unforeseen cost of civilization*. New York: Random House.
- Whitehead, N. L., & Wright, R. (Eds.). (2004). *In darkness and secrecy: The anthropology of assault sorcery and witchcraft in Amazonia*. Durham, NC: Duke University Press.
- White House Office of National AIDS Policy. (2010, July). *National HIV/AIDS strategy for the United States*. Retrieved from <a href="http://aids.gov/federal-resources/policies/national-hiv-aids-strategy/nhas.pdf">http://aids.gov/federal-resources/policies/national-hiv-aids-strategy/nhas.pdf</a>
- Whitten, N. E. (1976). Sacha Runa: Ethnicity and adaptation of Ecuadorian jungle Quichua. Urbana, IL: University of Illinois Press.
- Wiebe, T. H., Sigurdson, E. S., & Katz, L. Y. (2008). Angel's trumpet (Datura stramonium) poisoning and delirium in adolescents in Winnipeg, Manitoba: Summer 2006. *Paediatrics & Child Health*, *13*(3), 193-196.
- Wild, T. C. (2006). Social control and coercion in addiction treatment: Towards evidence-based policy and practice. *Addiction*, 101(1), 40-49.
- Willig, C. (1999). Discourse analysis and sex education. In C. Willig (Ed.), *Applied discourse analysis: Social and psychological interventions* (pp. 110-124). Buckingham, UK: Open University Press.
- Willinsky, J. (2005). *The access principle: The case for open access to research and scholarship*. Cambridge, MA: MIT Press.

- Wilson, C. P. (2000). *Cop knowledge: Police power and cultural narrative in twentieth-century America*. Chicago: University of Chicago Press.
- Winkelman, M. J. (1990). Shamans and other "magico-religious" healers: A cross-cultural study of their origins, nature, and social transformations. *Ethos*, 18(3), 308-352.
- Winkelman, M. (2001). Alternative and traditional medicine approaches for substance abuse programs: A shamanic perspective. *International Journal of Drug Policy*, *12*(4), 337-351.
- Winkelman, M. (2005). Drug tourism or spiritual healing?: Ayahuasca seekers in Amazonia. *Journal of Psychoactive Drugs*, *37*(2), 209-218.
- Winkelman, M. (2010). *Shamanism: A biopsychosocial paradigm of consciousness and healing* (2nd ed.). Santa Barbara, CA: Praeger.
- Winther, P. C. (2003). *Anglo-European science and the rhetoric of empire: Malaria, opium, and British rule in India, 1765-1895.* Lanham, MD: Lexington Books.
- Wiseman, N. (2010, July 5). Where power has headed, sadly [Electronic article]. *HistoryWire*. Retrieved from <a href="http://historywire.ca/en/article/21365">http://historywire.ca/en/article/21365</a>
- Wisotsky, S. (1987). Crackdown: The emerging 'drug exception' to the Bill of Rights. *Hastings Law Journal*, *38*(5), 889-926.
- Wodak, A., & Owens, R. (1996). *Drug prohibition: A call for change*. Sydney, Australia: University of New South Wales.
- Wodak, R. (2001). What CDA is about—a summary of its history, important concepts and its developments. In R. Wodak & M. Meyer (Eds.), *Methods of critical discourse analysis* (pp. 1-13). Thousand Oaks, CA: Sage Publications.
- Wolf, M. (2007). Proust and the squid: The story and science of the reading brain. New York: Harper Perennial.
- Women's Christian Temperance Union. (n.d.). *Early history*. Retrieved from <a href="http://www.wctu.org/earlyhistory.html">http://www.wctu.org/earlyhistory.html</a>
- Wood, E., Kerr, T., Tyndall, M. W., & Montaner, J. S. G. (2008). The Canadian government's treatment of scientific process and evidence: Inside the evaluation of North America's first supervised injecting facility. *International Journal of Drug Policy*, 19(3), 220-225.
- Wright, R. (2004). A short history of progress. Toronto: House of Anansi Press Inc.
- Wright, R. M., & Hill, J. D. (1986). History, ritual, and myth: Nineteenth century millenarian movements in the Northwest Amazon. *Ethnohistory*, *33*(1), 31-54.

- Young, M., Stuber, J., Ahern, J., & Galea, S. (2005). Interpersonal discrimination and the health of illicit drug users. *The American Journal of Drug and Alcohol Abuse*, *31*(3), 371-391.
- Zimmerman, J. (1993). "When doctors disagree": Scientific temperance and scientific authority, 1891-1906. *Journal of the History of Medicine and Allied Sciences*, 48(2), 171-197.
- Zimmerman, J. (1999). Distilling democracy: Alcohol education in America's public schools, 1880-1925. Lawrence, KA: University Press of Kansas.
- Zinberg, N. E. (1984). *Drug, set and setting: The basis for controlled intoxicant use.* New Haven, CT: Yale University Press.
- Znamenski, A. A. (2007). *The beauty of the primitive: Shamanism and the western imagination*. Oxford: Oxford University Press.

## **Appendix**

"Ayahuasca healing beyond the Amazon: The globalization of a traditional indigenous entheogenic practice" is an article I wrote that was published in *Global Networks: A Journal of Transnational Affairs*, volume 9, issue 1, in January 2009. It is appended here with the permission of the journal. Other than pagination, I have kept the style, punctuation, formatting and other elements of the text the same as the final published version.

## **Abstract:**

Ayahuasca commonly refers to a psychoactive Amazonian indigenous brew traditionally used for spiritual and healing purposes (that is as an entheogen). Since the late twentieth century, ayahuasca has undergone a process of globalization through the uptake of different kinds of socio-cultural practices, including its sacramental use in some new Brazilian religious movements and its commodified use in cross-cultural *vegetalismo* practices, or indigenous-style rituals conducted primarily for non-indigenous participants. In this article, I explore the rise of such rituals beyond the Amazon region, and consider some philosophical and political concerns arising from this novel trend in ayahuasca use, including the status of traditional indigenous knowledge, cultural appropriation, and intellectual property. I discuss a patent dispute in the United States and allegations of biopiracy related to ayahuasca. I conclude the article with some reflections on the future of ayahuasca drinking as a transnational sociological phenomenon.

**Keywords:** ayahuasca, globalization, traditional indigenous knowledge, intellectual property, cultural appropriation, biopiracy, *vegetalismo*, entheogen

In this article, I consider the globalization of ayahuasca (Tupper 2008), a sociological trend that presents a number of significant philosophical and practical issues for indigenous peoples, scholars and policy-makers. 'Ayahuasca' (pronounced EYE-uh-WAH-skuh) is a word that English (and liana and now more commonly the traditional entheogenic brew prepared from it. A number of types of ayahuasca drinking practices are contributing to its globalization; in this article I focus mostly on a type not much discussed in the academic literature, 'cross-cultural numerous other languages) borrowed from the Peruvian indigenous Quechua language denoting a jungle *vegetalismo*', or indigenous-style ayahuasca rituals conducted primarily for non-indigenous clients. I consider how novel forces of cultural and economic globalization have shaped the trajectory of ayahuasca's expansion into modern contexts and examine some of the philosophical issues it raises. In particular, I explore concerns about some aspects of cross-

cultural *vegetalismo* that relate to post-colonialism and cultural appropriation. Finally, I conclude with some reflection on the future of ayahuasca as a transnational sociological phenomenon.

As a prefatory remark, and to establish my position on the research topic at hand, I begin by disclosing that I am a middle-class Canadian of Anglo-Scottish descent who has had the opportunity to experience ayahuasca and its remarkable effects several dozen times. Experienced mostly in cross-cultural *vegetalismo* ceremonies (explained below), my encounters with ayahuasca have been somatically, cognitively, emotionally and spiritually rewarding. However, I have also struggled with political and social justice questions that have arisen as my knowledge of ayahuasca, its status as an exemplar of traditional indigenous knowledge, and its globalization grows. This article is a discursive exploration of some of these concerns, but does not explicitly attempt to resolve them. It reflects a tension between the benefits I feel I have received from drinking ayahuasca and the political sensitivities I perceive as a Euroamerican who is aware of – and seeks to redress – past and present injustices stemming from the colonial enterprise of my forebears.

Amazonian indigenous peoples have used ayahuasca for ritual and healing purposes since pre-Columbian times (McKenna 1999). It is a decoction typically prepared from two plants, known in the Linnean taxonomic system as *Banisteriopsis caapi* and *Psychotria viridis*, which contain, respectively, harmala alkaloids and dimethyltryptamine (DMT). These compounds, when ingested in combination, produce a unique biochemical synergy resulting in profound idiosyncratic psychoactive effects (Shanon 2002). Deemed by contemporary drug control authorities to be 'drugs of abuse', harmala alkaloids are controlled substances in some countries and DMT is prohibited by international drug control conventions (United Nations 1971). Yet relatively little is known about ayahuasca and its therapeutic uses. Some basic observational research has been done on the physical and psychological effects of the brew, which has demonstrated its general safety in ritual and laboratory contexts (Callaway, et al. 1999; Riba and Barbanoj 2005), but rigorous scientific investigation of its potential healing applications or tonic properties has yet to be undertaken (McKenna 2004).

Ayahuasca is still used in Amazonian shamanic practices within a variety of traditional and hybridized ethnomedical systems throughout the region. In these traditions, aspiring *ayahuasqueros* go through an extended and difficult period of training – involving demanding dietary and behavioural restrictions – although real mastery is acknowledged to take decades or a lifetime (Langdon, 1979). For many indigenous peoples of the Amazon, ayahuasca is integral to ritual practices, myths, cosmologies, art and music, and most other aspects of cultural life (Gow 1994; Reichel-Dolmatoff 1997). Dobkin de Rios (1984) identifies several purposes the use of ayahuasca serves in indigenous shamanic traditions, including learning the whereabouts of enemies, preparing for hunting or other expeditions, to tell if spouses were unfaithful, and to determine the cause and effecting a cure of disease. In Peruvian *mestizo* contexts, ayahuasca healing is integral to a broader practice of plant-based ethnomedicine known as *vegetalismo* (Luna 1986).

Ayahuasca's globalization in the past few decades, however, has been driven by other types of practices, resulting from reciprocal cultural flows between the Amazon (where most B. caapi and P. viridis is harvested or cultivated) and other parts of the world. I identify three main types of contemporary ayahuasca drinking outside its traditional geographic territory. First, Brazilian ayahuasca religions, or syncretistic churches such as the Santo Daime and União do Vegetal (UDV), developed spiritual doctrines around the brew as a sacrament in the early- to midtwentieth century (Labate & Araújo 2004; MacRae 2004). Second are the psychonautic uses of the ayahuasca brew in comparatively non-structured contexts by consumers who may buy the dried plant material by mail order over the Internet and prepare and consume it at home (Halpern & Pope 2001; Ott 1994). Third is cross-cultural *vegetalismo*, indigenous-style ayahuasca healing ceremonies conducted in an often overtly commodified way for non-indigenous clients both in the Amazon and abroad (Dobkin de Rios & Rumrill 2008; Luna 2003). However, these types are neither mutually exclusive nor necessarily exhaustive. For example, innovative spiritual seekers or healers may engage in hybrid ritual forms with ayahuasca, incorporating practices such as reiki or qi gong energy work, or maverick psychotherapists may use the brew in clinical contexts in underground therapeutic sessions.

Outside its native Amazonian habitat, ayahuasca now has a presence in dozens of countries, including other parts of South America, North America, Europe, Australia and New Zealand, and some parts of Asia. The Brazilian ayahuasca religions, in particular, have presented significant challenges to modern western liberal democratic states, which attempt simultaneously to uphold punitive drug control laws and to honour constitutionally enshrined principles of religious freedom. In the last decade countries including Australia, France, Germany, Italy, the Netherlands, Spain, and the United States have fought legal cases over the religious use of ayahuasca (for example Adelaars 2001; Hollman 2006); Brazil and Canada, by contrast, have preferred to work proactively on formulating policies to accommodate novel spiritual practices, rather than wait for jurisprudential direction through court decisions (Polari de Alverga 1999; Rochester 2006). Ironically, many of these governments champion globalization as central to their political and economic interests, yet have felt unexpectedly threatened by the cultural shifts and legal challenges that the globalization of ayahuasca has provoked (Tupper 2008). Reports of the extraordinary experiences ayahuasca produces now circulate in the media and on the Internet, making the brew an attractive curiosity in some social and professional circles. Within the past decade international ayahuasca conferences have been held in San Francisco (March 2000), Amsterdam (November 2002), and Heidelberg (May 2008), and several Amazonian shamanism conferences focused on ayahuasca have been held in Iquitos, Peru.

Most academic research on ayahuasca to date has been focused on the traditional ritual practices of the indigenous and mestizo peoples of the Amazon (in ethnographies written by anthropologists) and more recently on the physical, psychological and social effects of ayahuasca drinking among members of the Santo Daime and UDV. There has been less attention given to the sociological phenomenon of cross-cultural *vegetalismo*. Dobkin de Rios (1994) has written about what she pejoratively characterizes as 'ayahuasca tourism,' the marketing of shamanic rituals for tourists in countries such as Brazil, Ecuador and Peru. However, cross-cultural *vegetalismo* has also grown beyond the Amazon. This has been through rituals led by itinerant Amazonian shamans, or what have been termed neo-*ayahuasqueros*, non-indigenous practitioners of traditional Amazonian shamanism (Labate 2004). Cross-cultural *vegetalismo* practices generally adhere to ritual structures of indigenous ayahuasca healing traditions, including the vocalizing of *icaros*, or whistling, chants and songs inspired by ayahuasca

experiences. Discourses of cross-cultural *vegetalismo* also follow the traditional cultural construction of ayahuasca as a medicine, a superlative diagnostic and therapeutic agent among numerous important 'plant teachers' of the Amazon forest (Demange 2002).

In the rest of this article, I consider the transnational phenomenon of the rise of cross-cultural *vegetalismo* ayahuasca use both in and beyond the Amazon, and some of the philosophical and political issues that relate to its status as a type of traditional indigenous knowledge. People drink ayahuasca in cross-cultural *vegetalismo* ceremonies for various reasons, including seeking spiritual enlightenment, self-actualization, mystical experiences or treatment of physical or psychological ailments (Winkelman 2005). Although the Brazilian churches are in many countries a common – perhaps even predominant – vehicle for developing a relationship with ayahuasca, the overt Christianity in their doctrines may impel some to seek what they regard as more 'authentic' traditional aboriginal practices.

# Modernity and the globalization of ayahuasca

The concepts of modernity and globalization are intrinsic to understanding the context and meaning of ayahuasca's international expansion in recent decades, and apply to both the Brazilian churches and cross-cultural *vegetalismo*. Although modernity celebrates itself in dominant political discourses for purportedly improving the human condition, its achievements are contentious, or at least come with costs. For example, Taylor (1991) identifies several 'malaises' of modernity – individualism, instrumental reason and political amotivation – that prevail in contemporary Euroamerican society. Along the same lines, others observe that modernity has led to a general secularization and disenchantment of the world (Gauchet 1997; Ortiz 2003). If these phenomena are indeed provoking a spiritual thirst, the rise of the Brazilian religions and cross-cultural *vegetalismo* beyond the Amazon indicates that a growing number of people believe it can be slaked with ayahuasca.

Giddens (1990: 64) argues that one of the consequences of modernity is globalization – 'the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa.' Globalization is thus a function of the 'stretching' of social relations precipitated by the increased space-time

distancing and disembedding of modernity. One of the consequences of this has been a subjugation or erasure of the concept of place and knowledge and a privileging of the global spatial flows of information and capital (Escobar 2001). As such, cultural ties to the local seem to be increasingly less important as influential factors in understanding or making meaning of the world. Tomlinson (1999: 29) calls this weakening of the ties of culture to place deterritorialization, or 'the simultaneous penetration of local worlds by distant forces, and the dislodging of everyday meanings from their "anchors" in the local environment.'

Deterritorialization seems accurately to describe the condition of some of the contemporary globalized uses of ayahuasca, whereby the brew is consumed in geographical and cultural contexts very different from those of even a few generations ago. This observation should not be construed as an attribution of authenticity (or lack thereof) regarding the experiences or practices undertaken by people who are not indigenous to the Amazon; indeed, I should clarify that I am not postulating simple binary forms of ayahuasca use, the 'traditional' and modern. Rather, I am interested in raising questions such as what effect the process of deterritorialization has on the meaning that individuals may make from the ayahuasca experience. Some ethnographers argue that ayahuasca drinkers of different cultural (and by extension geographic) origins have fundamentally different experiences (Dobkin de Rios 1994). For example, Lenaerts (2006: 8) reports a 'contrast between indigenous and Western thought processes ... [t]he former ... based on relationships, the latter on material substances'; he suggests this contrast manifests particularly in ontological constructions of ayahuasca and the experiences it produces. Shanon (2002), on the other hand, based on his research in the discipline of cognitive psychology, argues that many aspects of ayahuasca's effects transcend cultural differences, suggesting underlying psychological archetypes common to all humans. Much further empirical work needs to be done to inform thinking on such philosophical matters, but closer to hand is the pragmatic question of the impact deterritorialization has on the politics of the globalization of ayahuasca, to be explored further below.

The discourses of modernity and globalization stem from a Eurocentric understanding of geography, history and culture that have been foundational to the enterprises of imperialism and colonialism. Blaut (1993) identifies 'diffusionism' as a central aspect of Eurocentrism, a notion

premised on binary assumptions about the 'core' (that is European colonizing states or local comprador elite) and the 'periphery' (for example indigenous peoples). According to this model, the core displays characteristics such as inventiveness, rationality, discipline, adulthood, sanity, science and progress; the periphery, by contrast, exhibits qualities such as imitativeness, emotion/instinct, spontaneity, childhood, insanity, sorcery and stagnation (Blaut 1993: 17). Diffusionism still permeates modern understandings of the transmission of knowledge and cultural practices. For example, the paternalism implicit in many of the economic and cultural policies promulgated through institutions such as the International Monetary Fund, the World Bank and other supra-national organizations betray a lingering commitment to Eurocentric diffusionist principles (Harvey 2003). However, Blaut (1993) also identifies a latent concern among modern authorities that some atavistic beliefs and practices could counter-diffuse back into Eurocentric society and despoil the civilized core. Favourable representations of ayahuasca and the altered states of consciousness it produces are presumably examples of the kinds of perceived maleficent subversion that authorities fear might impinge on modern civil society. Thus, it is unsurprising that a common reactionary response has been to try to proscribe ayahuasca within the strictures of contemporary drug control laws and that syncretized Christian ayahuasca-drinking practices are the vanguard of its legitimation.

Some critics regard globalization and its political, economic and cultural implications as examples of neo-colonialism. For example, the inherent Eurocentrism in discourses of modernity and globalization are cited as evidence of their continued movement towards socio-political and epistemological hegemony (Lander 2002; Quijano 2000). In particular, there is concern over globalization's homogenizing tendencies in the cultural arena. The imperatives of the flow of global capital are seen as causally linked to the spread of modern Euroamerican ideology and culture. Indeed, 'the process of globalisation began in the West and has mainly fostered the expansion of Western ideas, values, lifestyles and technology' (Smith et al. 2000: 2). By this understanding, culture and ideology are seen as flowing from 'west' to 'rest,' an insidious foisting of Mickey Mouse, Coca-Cola, and MTV – and an implicit neo-liberal agenda – on traditional indigenous and other non-western cultures (Barber 1995; Massey 1995; Rodrik 1997). Given the interrelationship between biological, linguistic and cultural diversity – and the threats

posed to these by the seemingly ineluctable forces of globalization – such concern may be well-founded (Maffi 2001).

However, the cultural aspects of globalization made possible by modern communications technologies are a double-edged sword. In Giddens' (1990: 77) analysis, 'technologies of communication have dramatically influenced all aspects of globalization ... [forming] an essential element of the reflexivity of modernity and of the discontinuities which have torn the modern away from the traditional.' While this may be the case, it is not a given that globalization will result in a homogenous Euroamerican cultural domination, the 'coca-colanization' that some fear. There is also a dialectical undercurrent in cultural globalization that produces the kind of counter-diffusion that Blaut (1993) identifies, a means for subaltern voices and thoughts to filter back into the dominant core. As Appadurai (1996: 32) asserts, 'the new global cultural economy has to be understood as a complex, overlapping, disjunctive order, which cannot any longer be understood in terms of existing center-periphery models.' Thus, cultural globalization opens paths for the movement of ideas, beliefs and practices multi-directionally, in ways that enable previously marginalized communities to assert their political and cultural autonomy. For example, 'globalisation provides the chance for Indigenous peoples to advance recognition and acceptance of their cultural values in innovative and effective ways and to empower themselves by harnessing the power of public opinion and by becoming familiar with each other's problems, solutions and effective strategies' (Smith et al. 2000: 4). The top-down model of cultural dissemination fails to recognize the potential of new media such as the Internet to allow for the networking of subaltern voices and the democratization of knowledge production, which have arguably played an integral role in the expansion of ayahuasca use beyond the Amazon.

The Internet is one of the most important drivers of globalization today, an information and communication tool exerting unprecedented economic, social and intellectual changes. Its role in disseminating knowledge and opinions about ayahuasca in the past decade has been instrumental in spreading cross-cultural *vegetalismo* (and the brew more generally) beyond the Amazon. As Panagakos and Horst (2006: 117-118) observe, 'while the Internet may not transform entire societies and is inundated with corporate and marketing agendas, it can still be an important social outlet and empowerment tool for smaller communities driven by common identities,

ideologies and localized interests.' The inception of the World Wide Web during the 1990s established novel sociological conditions for ayahuasca to enter the popular mindscape of Euroamerican culture in the way it has. Indeed, equally prevalent as the use of brew itself are online narratives about the ayahuasca experience, which generally emphasize healing, personal insight and spiritual transformation. Yet, whereas in the 1960s governments were able to counter discourses lauding similar kinds of substances, such as LSD and mescaline, with one-sided deprecatory representations that served their political interests, today authorities are hard-pressed to challenge the volume and scope of information about ayahuasca easily available to the lay public. The use of the Internet by ayahuasca aficionados allows for a diversity of thought and expression about the brew and its effects that pose significant challenges to policy-makers. Robust and active information and social networking websites, such as www.erowid.org, www.ayahuasca.com and www.tribe.net, allow people who have had or are seeking ayahuasca experiences to share and exchange information about ayahuasca rituals. They provide information on how to cultivate its constitutive plants, how to make ayahuasca or ayahuasca analogues, and on avahuasca tourism (for example travel information on Amazonian destinations or recommendations about particular ayahuasqueros).

# Ayahuasca and cultural appropriation

The globalization of ayahuasca, and particularly cross-cultural *vegetalismo*, provides a useful case through which to consider issues related to cultural appropriation of traditional indigenous knowledge and spirituality. Indigenous peoples around the world have only in the past few decades begun to have some (varying) success in asserting their civil, property and governance rights and demanding respect for their languages, art and music, and spiritual belief systems (Battiste & Henderson 2000). For most of the post-contact history of the past 500 years, the value of these aspects of indigenous cultures was systemically denied by the dominant Euroamerican culture, which has actively sought to assimilate people native to colonized territories and annihilate their traditions. This attitude towards indigenous peoples and their cultures has taken various forms, from overt policies and practices of genocide (Annett 2001; Stannard 1992) to much more subtle forms of discrimination, socio-political exclusion and institutionalized racism (Milroy 1999). In some respects, however, Eurocentric – particularly North American – culture has had an ambiguous relationship with indigenous peoples. Despite

official policies and widespread attitudes that denigrated and sought to extinguish indigenous traditions, curiosity about and fascination with indigenous peoples and their cultures has been an enduring counterpoint. The stereotype and idealization of the 'noble savage' traces back to the early modern works of thinkers such as Michel de Montaigne and Jean-Jacques Rousseau. Some critics contend this myth is still alive and well today (Krech 1999), especially in the form of stylized beliefs about indigenous spiritual practices among 'new age' and other such religious movements. With respect to ayahuasca, this is manifest in some idealistic representations of the brew that are at odds with its nefarious role in Amazonian indigenous traditions of assault sorcery (Whitehead & Wright 2004).

The political backdrop of colonialism and its legacies puts into relief ethical concerns about the uptake by non-indigenous people of such practices as ayahuasca drinking in cross-cultural *vegetalismo* rituals. Such cultural transfers have been variously labeled, depending on political alignment, from respectful homage or innocent borrowing to outright theft or cultural genocide. In a critical light this reflects as cultural appropriation, or what Kulchyski (1997: 614) describes as 'the practice on the part of dominant social groups of deploying cultural texts produced by dominated social groups for their own (elite) interests.' By this view, cultural appropriation assumes the existence of power differentials between the source culture and the privileged authoritative position of the borrower culture.

Appropriation of indigenous culture can take many forms. These include the incorporation of traditional indigenous iconography in fashion, art, or commercial design (Shand 2002); the use of chants, rhythms or other musical forms in music (Gorbman 2000); and the production, sale or use of imitation or derivative cultural artefacts. Various kinds of harm are attributed to cultural appropriation. Among these are that it undermines the integrity of the community whose culture is appropriated; and it has an impact on the cultural object itself (for example profanation of a sacred practice). It also permits inappropriate distribution of material rewards (namely financial gain) to the individuals doing the appropriating; and it fails to acknowledge legal sovereignty over a kind of intellectual property. In the following section, I take up the issue of biopiracy, a particular kind of cultural appropriation that has been an issue in ayahuasca's globalization in the past few decades. For the moment, our focus remains on the realm of spirituality and the forms

of cultural appropriation that have arisen from the interests of Euroamericans in Native American indigenous spiritual beliefs and practices, which may include cross-cultural *vegetalismo*.

Despite having attained ostensible wealth, power and other markers of 'success', many Euroamericans have become disillusioned with the organized religions of their forebears and feel alienated from their Judeo-Christian cultural heritage. As Aldred (2000: 329) observes, 'in the so-called postmodern culture of late consumer capitalism, a significant number of white affluent suburban and urban middle-aged baby-boomers complain of feeling uprooted from cultural traditions, community belonging, and spiritual meaning.' Likewise, Alexander (2008) identifies 'dislocation' – including the weakening of traditional spiritual supports – among denizens of modern Western free-market societies as a significant factor in the rising prevalence of addictions to things such as drugs, food, money, sex and power. And Johnson (2003: 348) contends that 'what is distinct about the present [postmodern] age is not the decline of religion as such ... but rather the decline of central, socially binding religious authority.' Among the responses to this phenomenon has been an increased interest in other spiritual traditions – such as those whose nexus is the ayahuasca brew – the exoticism of which may provide a veneer of authenticity in contrast to more banal, familiar faiths.

Cultural appropriation of indigenous spirituality may take many forms. For example, the lack of connection to 'place' characteristic of postmodernity has created for some an attraction to geographic features or specific parts of the earth long held as sacred by local indigenous communities. This has occasionally led to tensions between different (indigenous and non-indigenous) groups who assert competing claims of right to access to and use of such places (Pike 2004). Likewise, indigenous cultures have lately been represented, accurately or not, as intrinsically ecological, raising concerns over their appropriation or misrepresentation in discourses of environmentalism and the revival of a neo-'noble savage' myth (Krech 1999; Taylor 1997). In some respects, the globalization of ayahuasca manifests both of these, inasmuch as the ecoscape of the Amazon jungle has been constructed in many contemporary spiritual and ecological movements as a sacred part of the earth and a focus for concerns over environmental devastation.

The case of neo-*ayahuasqueros* – people of non-indigenous descent leading cross-cultural *vegetalismo* rituals – is particularly salient with respect to questions of cultural appropriation. Although some may practice with strict adherence to traditions and the respect and blessing of indigenous *maestros*, the potentially lucrative market for ayahuasca healing is sure to attract charlatans of both indigenous and non-indigenous heritage (Dobkin de Rios & Rumrill 2008). In extreme cases, 'white shamans' or 'plastic medicine (wo)men' may (mis)represent themselves as having a connection to indigenous lineage or training and charge exorbitant fees for books they have published or for conducting vision quests, workshops, weekend seminars, sweat lodges and the like (Aldred 2000; Wernitznig 2003).

The phenomenon of plastic medicine women or men raises concerns particularly for indigenous people themselves (Rose 1992). One of these is the commodification of spirituality (Meyer & Royer 2001; York 2001), or paying money for the 'service' of providing a ritual, as monetary exchange in a free market of spirituality is both foreign and anathema to most indigenous traditions. The politics of post-colonialism compounds this, for some critics note that 'interest in Native American cultures appears more concerned with exoticized images and romanticized rituals ... than with the indigenous peoples themselves and the very real (and often ugly) socioeconomic and political problems they face as colonized peoples' (Aldred 2000: 333). Another concern is what grounds an individual has to claim competence or the right to lead work in an indigenous tradition. For example, 'traditional [indigenous] power structures have always been concerned with ensuring that designs, stories, ceremonies, dances and songs are only employed by those with an ancestral right to practice them' (Smith, et al. 2000: 10). This question applies both to non-indigenous people and to people of indigenous heritage who may lack the appropriate training or community support to represent indigenous knowledge or lead ceremonies. Finally, some have expressed concern about the effects that plastic medicine women and men have on representations of indigeneity and their authenticity both to Euroamericans and to indigenous peoples themselves (Welch 2002).

Recent contentions by indigenous peoples that neo-colonialism and globalization are threatening their traditions have highlighted the cultural appropriation of Amazonian healing practices. For

example, in 1999, a group of Colombian *taitas* (i.e. shamanic healers) – the *Unión de Médicos Indígenas Yageceros de la Amazonía Colombiana*, or Union of Indígenous Yagé (ayahuasca) Healers of the Colombian Amazon – identified cultural appropriation as an issue of concern in their 'Yurayaco Declaration':

Non-indigenous people are finally acknowledging the importance of our wisdom and the value of our medicinal and sacred plants. Many of them profane our culture and our territories by commercializing yagé and other plants; dressing like Indians and acting like charlatans....

Indeed, even some of our own indigenous brothers do not respect the value of our medicine and go around misleading people, selling our symbols in towns and cities

(Union de Medicos Indigenas Yageceros de la Amazonia Colombiana 1999)

Along the same lines, indigenous healers in the Peruvian Amazon have expressed concern about the safety of naïve or undiscerning travellers whom ill-trained or manipulative individuals misrepresenting themselves as *ayahuasqueros* may exploit (Dobkin de Rios & Rumrill 2008). However, with awareness about ayahuasca outside the Amazon increasing, and a ready market for cross-cultural *vegetalismo* ceremonies, these concerns are unlikely to be laid to rest in the near future.

It would be simplistic to characterize all instances of ostensibly asymmetric cross-cultural transfer of spiritual or esoteric knowledge as necessarily problematic or reprehensible. In practices as diverse as yoga, African drumming, traditional Chinese medicine, and Buddhist meditation, individuals exogenous to the traditional cultural heritage are acknowledged as capable – with diligent training and appropriate respect for tradition – of mastery of the art. As Native American poet and scholar Wendy Rose (1992: 416), an insightful critic of 'whiteshamans', contends: 'the problem with whiteshamans is one of integrity and intent, not topic, style, interest, or experimentation.' Likewise, Cuthbert (1998: 257) notes that 'to seek to represent every transaction and exchange between coloniser and colonised as only appropriative – or expropriative – is to oversimplify substantially the dynamics of a complex field of cultural interaction.' There exist a variety of indigenous attitudes towards non-indigenous interest in their spiritual traditions; for example:

[some] say that Native American religious practices are crucial if the world is to be preserved. Some believe that it is only pure, *uninfluenced* native ceremony that can preserve the world. But a significant minority argue that non-Indian participation in 'the red road' is necessary if humans are to reharmonize life on earth.

(Taylor 1997: 187, italics in original)

McGaa, an Oglala Sioux author, makes a similar case, namely that allowing non-indigenous participation in native ritual is a crucial step towards promoting an indigenous ecological cosmovision; as he (1990: vii) puts it, 'if the Native Americans keep all their spirituality within their own community, the old wisdom that has performed so well will not be allowed to work its environmental medicine on the world where it is desperately needed.' Luna (2003), writing as a contemporary neo-*ayahuasquero*, argues that contemporary non-indigenous medicinal and sacramental uses of ayahuasca represent evolving traditions of spiritual awakening.

The questions raised in considering ayahuasca's globalization through the lens of cultural appropriation become more pointed with respect to the discourses of intellectual property. Issues of post-colonial political and economic relations between North and South are the subject of heated controversy, with charges of biopiracy frequently leveled in the areas of agricultural and pharmaceutical research and industry. As we shall see, ayahuasca has been a focal point in at least one such controversy, leaving open questions about who benefits from the transfer of knowledge from indigenous cultures and the inherent lack of reciprocity in contemporary global economic structures. This may apply not only to practices of corporations, but also to some purveyors of ayahuasca, both in the Amazon and abroad, who can charge relatively affluent clientele substantial fees for their shamanic services.

#### Commodification, intellectual property and biopiracy

The ayahuasca brew is a complex decoction that is evidence of an advanced form of pharmacognosy among the indigenous peoples of the Amazon, an example *par excellence* of cultural intellectual property. Ayahuasca's most characteristic psychoactive effects cannot be achieved without the specific combination of its two primary plant constituents, *B. caapi* and *P. viridis*. The knowledge of combining these two particular species – out of the tens of thousands in the Amazon forest – and preparing them in such a manner as to potentiate their pharmacological action is a remarkable example of phytochemical engineering. How such

knowledge was developed and perfected in an accompanying ritual context that may generate or optimize therapeutic effects is an enigma to western science. Both Davis (1996) and Narby (1998) independently report that the Amazonian indigenous peoples they met while doing ethnobotanical fieldwork did not see any mystery in their knowledge of ayahuasca, declaring matter of factly that the spirits of the plants taught them. In any case, ayahuasca and the thousands of other medicinal plant preparations known to indigenous peoples, both in the Amazon and elsewhere, are testaments to a complex knowledge system of botany and pharmacology. However, the discordance of Amazonian indigenous pharmacognosy and spiritual belief systems with western capitalist imperatives relates to ayahuasca in very real ways through the recent case of a US patent on the *B. caapi* vine.

In November 1984, an American named Loren Miller filed for a patent on a 'new and distinct' *B. caapi* vine that he had named 'Da Vine' – the claim to novelty was based on 'the rose color of its flower petals which fade with age to near white, and its medicinal properties' (Miller 1984). The United States Patent and Trademark Office (PTO) issued the patent in June 1986. When South American indigenous peoples learned that one of their most sacred medicinal plants had been patented, they sought redress with the help of the Centre for International Environmental Law (CIEL). On behalf of the Coordinating Body of Indigenous Organizations of the Amazon Basin (COICA) and the Coalition for Amazonian Peoples and Their Environment (Amazon Coalition), CIEL formally filed a request to the PTO for re-examination of the 'ayahuasca patent' in March 1999 (Centre for International Environmental Law 1999). The CIEL request argued that the 'Da Vine' patent should be rescinded for failing to meet several requirements of the US Plant Patent Act. Specifically, it charged that 'Da Vine' was neither distinct nor new, that it was found in an uncultivated state, and that its patenting violated the public policy and morality aspects of the Plant Patent Act (Centre for International Environmental Law 1999).

In November 1999, the PTO revoked Miller's patent, but only on the grounds that the so-called invention had been previously described; they refused to consider the issues of whether traditional indigenous knowledge of a plant or its uses should be considered 'prior art' or whether the patent violated the Plant Patent Act's public policy and morality conditions (Wiser 1999). Subsequently, Miller exercised his right to appeal against the PTO's rejection and, in

January 2001, without allowance for any further consideration of opposing views, the PTO reversed its decision, reinstated the 'Da Vine' patent, and closed the file (Wiser 2001). The Amazonian indigenous peoples who initially sought the rejection were understandably outraged, but had no further legal recourse. For Miller, the final decision was a symbolic victory rather than a material one, as the life span of the original patent was 17 years; in June 2003 it expired and cannot be renewed (Centre for International Environmental Law 2003). For indigenous peoples, however, in this specific case and more generally, the decision was a symbolic loss. The PTO reasserted the privileged authority of Eurocentric views of knowledge and property, effectively denying both the spiritual value of the ayahuasca vine for Amazonian indigenous peoples and the legitimacy (or even recognition) of prior art in their ceremonial and oral traditions.

The ayahuasca patent case centred on a paradigmatic instance of biopiracy, or the appropriation of traditional indigenous plant knowledge for personal or corporate financial gain, without acknowledgement or equitable compensation (Shiva 1997). After several decades of focusing on computer modeling and synthetic drug development, pharmaceutical companies in the 1980s once again began to appreciate the potential of the biosphere as a resource for potentially lucrative drug discoveries (Newman 1994). Moreover, many also realized that using indigenous informants to guide the research process could be invaluable, as the random screening of species for pharmacological activity is a slow, costly and uncertain endeavour. Although the newfound corporate interest in plant compounds held the promise of providing economic justifications for ecological preservation and biodiversity protection, it also threatened to be yet another source of injustice for indigenous peoples whose traditions and territories were open to further exploitation. Indeed, some critics decried 'bioprospecting' as a neo-colonial enterprise that perpetuated political and economic disparities between North and South (Merson 2000; Mgbeoji 2006). The possibility that indigenous knowledge might constitute intellectual property was absent from much of the mainstream economic discourse on drug discovery in the rainforest.

The concept of intellectual property has its origins in the proto-patents that were conceived in the Italian city-state of Venice in the fifteenth century; not long afterwards, the idea spread to other parts of Europe as social, political and economic conditions shifted with the advent of modern

nation-states (May & Sell 2006). Perhaps tellingly, the *United States' Constitution*'s Article 1, section 8, clause 8 – 'securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries' – contains the only instance of the word 'right' in that document (Novak 1996). Romantic notions of individual genius and the heroic inventor at the turn of the nineteenth century further strengthened the concept of intellectual property, as did the development of the institution of the corporation, which attended the rise of Industrial Revolution. Colonialism and mercantilism in the eighteenth and nineteenth centuries also helped spread the concept around the world in the nascency of globalization (Mgbeoji 2006). Today intellectual property is a driving force of contemporary free market capitalism, although new technologies – for example wikis, file sharing and the open source movement – pose the intriguing prospect that the concept may in future be rendered a quaint anachronism.

The expansion of the concept of patents and intellectual property has slowly encroached into the arena of life forms, beginning with the US Plant Patent Act of 1930, which limited intellectual property claims to only asexually reproduced flora (Kloppenburg 2004). Prior to this legislation, plants and other organisms were regarded as common property. By the 1940s, European countries followed suit in enacting similar plant patent laws and in 1961 the International Convention for the Protection of New Varieties of Plants extended the concept to sexually reproduced flora (Gorman n.d.). Today, with the advent of bioengineering and recombinant DNA, the question of patenting life forms and germplasm (that is an organism's genetic information) is more pressing than ever. Corporations actively pursue their economic interests in keeping with international trade agreements such as the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), and are unlikely to abandon enterprises that critics contend amount to 'enclosure' of the biosphere. As Mgbeoji (2006: 88) puts it, there has been 'a deliberate lowering of the threshold for patentability and several other forms of judicial and legislative intervention in the patent law system that have resulted in serving the ever-expanding appetite and interests of Western corporate seed merchants and pharmaceutical and biotechnological industries.'

The concept of intellectual property is foreign to the traditions of many non-western cultures, especially indigenous cultures. Indeed, 'indigenous peoples do not view their knowledge in terms

of property at all – that is, something that has an owner and is used for the purpose of extracting economic benefits – but in terms of community and individual responsibilities' (Battiste & Henderson 2000: 71). At the same time, Eurocentric culture has long denied that traditional indigenous knowledge or practices had any value at all, or if so, that they were part of the intellectual commons and thus free to be appropriated and used without recompense. As Lander (2002: 260) puts it, 'since the Eurocentric colonial assumption is that the only possible knowledge is Western university and industrial knowledge, it follows that only knowledges which correspond to this paradigm can be registered and protected as intellectual property. All other ways of knowing can be freely appropriated.'

That indigenous peoples might deserve recognition or compensation for their traditional knowledge only began to be taken seriously in the 1980s (Huft 1995). For example, in 1988 the International Society of Ethnobiology held its First International Congress in Belem, Brazil, where in cooperation with indigenous peoples it produced the 'Declaration of Belem,' the first international document 'specifically calling for the just compensation of native peoples for their knowledge and the legal defense of indigenous IPR [intellectual property rights]' (Posey 1990: 14). As Coombe (1997: 88) suggests, political claims such as those of intellectual property rights are unlikely to be heard unless they are expressed in 'the language that power understands ... that of possessive and expressive individualism.' Today, despite its being an alien notion, more indigenous peoples are asserting that their cultural and intellectual resources do indeed constitute intellectual property and are demanding equitable compensation for sharing this knowledge.

The question of intellectual property with respect to ayahuasca, however, goes beyond just its material production. The most effective use of ayahuasca for healing or divination may involve not just its preparation and consumption, but its incorporation into ritual contexts. Ritual practices in the *vegetalismo* tradition of ayahuasca healing involve structures of interpersonal organization, spatio-temporal organization, singing and chanting, and the uses of other kinds of plants (for example tobacco). At present, most intellectual property regimes do not regard ceremonial arts as a kind of knowledge that warrants protection in the same way as technological or biological knowledge does. However, the World Intellectual Property Organization has recently argued that 'traditional cultural expressions' (for example stories, songs, dances,

designs, and rituals) may be a knowledge form that deserves protection as intellectual property (World Intellectual Property Organization n.d.). In particular, such intellectual property protection of traditional cultural expressions could assist indigenous and other communities in protecting their cultural heritage and diversity.

While the growth of cross-cultural *vegetalismo* may seem to be a threat to intellectual property considerations, it could function in ways that protect the integrity of traditional ayahuasca healing practices. As mentioned above, the Yurayaco Declaration was an attempt by some indigenous *ayahuasqueros* in South America to express their concern about the risks that can result from the administration of ayahuasca by unskilled or unscrupulous 'wannabes' who might well be more concerned about the health of their bank accounts than about that of their clients (Unión de Médicos Indígenas Yageceros de la Amazonía Colombiana 1999). The spread of cross-cultural *vegetalismo* could serve to instigate the organization of self-regulating guilds or professional bodies that articulate standards of practice and duties of care for *ayahuasqueros*. How, or even whether, intellectual property laws should be adapted to accommodate recognition of the kinds of knowledge inherent in ceremonial practices is not a simple question. Nevertheless, it is one that deserves consideration because the expansion and commodification of ayahuasca drinking continues into the twenty-first century.

Finally, the commodification of ayahuasca calls into question the sustainability of its constituent species in the face of increasing popularity. Some Brazilian ayahuasca religions have begun cultivation projects to meet the needs of producing their sacraments, and some entheobotanically-minded horticulturalists have begun to cultivate *B. caapi* and *P. viridis* in places such as Hawaii and Costa Rica. However, in many parts of Amazonia, *B. caapi* is still harvested wild, a practice that may not be sustainable in the face of increasing demand. Furthermore, destruction of the rainforest in the Amazon for agriculture, forestry, petroleum exploration and other types of 'development' puts the entire bioregion at risk. Ott (1994) argues that his research on ayahuasca analogues, and publication of recipes for preparations made from non-traditional plants containing DMT and harmala alkaloids, is one way to ameliorate the perceived harm of increased ayahuasca tourism in South America. While this may be the case, his work may also have unintentionally had the opposite effect, by contributing to an increased

interest in and consumption of *B. caapi* and *P. viridis* preparations by those seeking what they perceive to be greater authenticity in the traditional brew.

# **Conclusion: The Future of Ayahuasca?**

One of the most important traditional indigenous uses of ayahuasca is to prophesy the future (Dobkin de Rios 1984); however, the future of ayahuasca and its relation to the human species is by no means clear. Through processes of cultural globalization, instances and patterns of ayahuasca drinking are emerging that are no longer rooted in traditional geographic and cultural contexts. In this article, I have characterized cross-cultural *vegetalismo* as a trend that poses serious philosophical and political questions about traditional indigenous knowledge, intellectual property, and bio-conservation. Although there may be significant health and spiritual benefits from ceremonial ayahuasca drinking, it is important that costs also be considered and weighed in future sociological, economic, and political analyses.

Assessing the future of ayahuasca also requires entertaining seriously the provocative suggestion that ayahuasca itself may have some agency in its recent global ascendance. Street (2003: 9) contends that 'while it might at first appear odd to ascribe agency to non-humans such as [plant] seeds, it is [their] existence as active presences that provides a means of enrolling others into particularly topologically extended social networks.' Yet, in traditional indigenous knowledge systems, ascribing agency and inter-specific relations to non-human actors such as plants is hardly a controversial notion (Lenaerts 2006). Some modern western ayahuasca researchers have embraced similar ideas. For example, McKenna (2005) suggests that ayahuasca may be asserting its own ecological agenda by emerging from the Amazon at a time when humans (at least those living in modern industrialized states) are in dire need of a wake-up call about our fundamentally imbalanced environmental relationship with the earth. Likewise, Narby (1998; 2005) relates that his experiences with ayahuasca compelled him to reject accepted orthodoxies within the epistemologies of modernity that deny non-human agency/intelligence and inter-species communication. And Letcher (2007: 92) contends that the dominant discourses that preclude the possibility of agency in the vegetable kingdom 'at best ... cut off a potentially fruitful avenue of consciousness research, and, at worst ... endorse a short-sightedness, a human-centered

narcissism in which consciousness can only be recognized if it comes packaged in a human form.'

Public policy may be what shapes the future of ayahuasca and its relation to humanity, to the degree that this is in our control at all. The accrued benefits and harms of ayahuasca for individuals and communities, both in the Amazon and beyond, will in part be a function of decisions made by policy-makers, who have at their disposal the means – and one hopes the wisdom – to decide whether or how responsibly and effectively to regulate its growth, production, distribution and use. Such policies would, ideally, acknowledge the status of ayahuasca as a traditional indigenous medicine (and more recently as a sacrament in new religious movements) and balance competing interests of civil liberties, public health, post-colonial redresses, and free-market economics. Greater knowledge about the brew and improved understanding of its effects will be essential for making informed policy decisions. To that end, this article adds to the growing literature on ayahuasca drinking in modern transcultural contexts, and raises significant issues for *ayahuasqueros* (and neo-*ayahuasqueros*) to heed in the development of their practices, for scholars to consider in planning ayahuasca research, and for policy makers to factor into their decision making about the brew.

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#### Note

<sup>1</sup> The term 'entheogen' was coined by scholars proposing an alternative to 'hallucinogen' and 'psychedelic' (Ruck, Bigwood, Staples, Ott & Wasson 1979). 'Hallucinogen' is a word grounded in 1950s clinical psychiatric paradigms, which made the culturally-loaded a priori assumption that the experiences such substances engendered were necessarily illusory and false. 'Psychedelic' was coined as an alternative to hallucinogen, but this word ultimately came to connote 1960s youth subcultures and associated artistic movements. By contrast, the etymological roots of 'entheogen' convey a sense of spirituality, hence its denotation of a psychoactive substance used to facilitate spiritual experiences (Smith 2000; Tupper 2002).

#### **Appendix References**

- Adelaars, A. (2001) 'Court case in Holland against the use of ayahuasca by the Dutch Santo Daime Church', www.santodaime.org/community/news/2105\_holland.htm, accessed 5 September 2008.
- Aldred, L. (2000) 'Plastic shamans and astroturf sun dances: New age commercialization of Native American spirituality', *American Indian Quarterly*, 24(3), 329-352.
- Alexander, B. K. (2008) *The globalisation of addiction: a study in poverty of the spirit,* Oxford: Oxford University Press.
- Annett, K. D. (ed.) (2001) *Hidden from history—the Canadian holocaust: the untold story of the genocide of Aboriginal peoples by church and state in Canada*, Canada: The Truth Commission into Genocide in Canada.
- Appadurai, A. (1996) *Modernity at large: cultural dimensions of globalization*, Minneapolis: University of Minnesota Press.
- Barber, B. R. (1995) *Jihad vs. McWorld: how globalism and tribalism are reshaping the world*, New York: Times Books.
- Battiste, M., & Henderson, J. Y. (2000) *Protecting indigenous knowledge and heritage: a global challenge*, Saskatoon, SK: Purich.
- Blaut, J. M. (1993) *The colonizer's model of the world: geographical diffusionism and Eurocentric history*, New York: The Guildford Press.
- Callaway, J. C., McKenna, D. J., Grob, C. S., Brito, G. S., Raymon, L. P., Poland, R. E., Andrade, E.N., Andrade, E.O. & Mash, D.C. (1999) 'Pharmacokinetics of hoasca alkaloids in healthy humans', *Journal of Ethnopharmacology*, 65, 243-256.
- Centre for International Environmental Law. (1999) 'Request for reexamination of US Patent No. Plant 5,751', www.ciel.org/Publications/ReexaminationofUSPlantPatent5751.pdf, accessed 5 September 2008.
- Centre for International Environmental Law. (2003) 'The ayahuasca patent case', www.ciel.org/Biodiversity/ayahuascapatentcase.html, accessed 5 September 2008.
- Coombe, R. J. (1997) 'The properties of culture and the possession of identity: postcolonial struggle and the legal imagination', in B. Ziff & P. V. Rao (eds) *Borrowed power: essays on cultural appropriation*, New Brunswick, NJ: Rutgers University Press, 74-96.
- Cuthbert, D. (1998) 'Beg, borrow or steal: the politics of cultural appropriation', *Postcolonial Studies*, 1(2), 257-262.
- Davis, W. (1996) *One river: explorations and discoveries in the Amazon rain forest*, New York: Simon & Schuster.
- Demange, F. (2002) *Amazonian vegetalismo: a study of the healing power of chants in Tarapoto, Peru,* Unpublished Masters thesis, University of East London, London, UK.
- Dobkin de Rios, M. (1972) *Visionary vine: psychedelic healing in the Peruvian Amazon*, San Francisco, CA: Chandler Publishing Co.

- Dobkin de Rios, M. (1984) *Hallucinogens: cross-cultural perspectives*, Albequerque, NM: University of New Mexico Press.
- Dobkin de Rios, M. (1994) 'Drug tourism in the Amazon', *Anthropology of Consciousness*, 5(1), 16-19.
- Dobkin de Rios, M. & Rumrill, R. (2008) A hallucinogenic tea, laced with controversy: ayahuasca in the Amazon and the United States, Westport, CT: Praeger.
- Escobar, A. (2001) 'Culture sits in places: reflections on globalism and subaltern strategies of localization', *Political Geography*, 20, 139-174.
- Gauchet, M. (1997) *The disenchantment of the world: a political history of religion* (O. Burge, Trans.), Princeton, NJ: Princeton University Press.
- Giddens, A. (1990) The consequences of modernity, Stanford, CA: Stanford University Press.
- Gorbman, C. (2000) 'Scoring the Indian: music in the liberal western', in G. Born and D. Hesmondhalgh (eds) *Western music and its others: difference, representation and appropriation in music,* Berkeley: University of California Press, 234-253.
- Gorman, D. (n.d.) 'Plant patent act', www.globalautonomy.ca/global1/glossary\_entry.jsp?id=EV.0024, accessed 5 September 2008.
- Gow, P. (1994) 'River people: shamanism and history in Western Amazonia', in N. Thomas & C. Humphrey (eds) *Shamanism, history, and the state*, Ann Arbor, MI: University of Michigan Press, 90-113.
- Halpern, J. H., & Pope, H. G. (2001) 'Hallucinogens on the Internet: a vast new source of underground drug information', *American Journal of Psychiatry*, 158, 481-483.
- Harner, M. J. (ed.) (1973) Hallucinogens and shamanism, Oxford: Oxford University Press.
- Harvey, D. (2003) The new imperialism, Oxford: Oxford University Press.
- Hollman, K. H. (2006) 'Quiet case may have far-reaching impact', *Liberty Magazine*, www.libertymagazine.org/article/articleview/562/1/89/, accessed 5 September 2008.
- Huft, M. J. (1995) 'Indigenous peoples and drug discovery research: a question of intellectual property rights', *Northwestern University Law Review*, 89(4), 1678-1730.
- Johnson, P. C. (2003) 'Shamanism from Ecuador to Chicago: a case study in new age ritual appropriation', in G. Harvey (ed) *Shamanism: a reader*, London: Routledge, 334-354.
- Kloppenburg, J. R. (2004) First the seed: the political economy of plant biotechnology, 1492-2000, Madison, WI: University of Wisconsin Press.
- Krech, S. (1999) *The ecological Indian: myth and history*, New York: W.W. Norton & Company.
- Kulchyski, P. (1997) 'From appropriation to subversion: aboriginal cultural production in the age of postmodernism', *American Indian Quarterly*, 21(4), 605-620.
- Labate, B. C. (2004) *A reinvenção do uso da ayahausca nos centros urbanos*, Campinas, Brazil: Mercado de Letras.

- Labate, B. C., & Araújo, W. S. (eds). (2004). *O uso ritual da ayahuasca* (2nd ed.). Campinas, Brazil: Mercado de Letras.
- Letcher, A. (2007) 'Mad thoughts on mushrooms: discourse and power in the study of psychedelic consciousness', *Anthropology of Consciousness*, 18(2), 74-97.
- Lander, E. (2002) 'Eurocentrism, modern knowledges, and the "natural" order of global capital', *Nepantla: views from South*, 3(2), 245-268.
- Langdon, E. J. (1979) 'Yagé among the Siona: cultural patterns in visions', in D. L. Browman & R. A. Schwarz (eds) *Spirits, shamans, and stars: perspectives from South America*, The Hague: Mouton Publishers, 63-80.
- Lenaerts, M. (2006) 'Substances, relationships and the omnipresence of the body: an overview of Ashéninka ethnomedicine (Western Amazonia)', *Journal of Ethnobiology and Ethnomedicine*, 2, 1-19.
- Luna, L. E. (1986) Vegetalismo: shamanism among the Mestizo population of the Peruvian Amazon, Stockholm: Acta Universitatis Stockholmiensis.
- Luna, L. E. (2003) 'Ayahuasca: shamanism shared across cultures' *Cultural Survival Quarterly*, 27(2), http://www.cs.org/publications/Csq/csq-article.cfm?id=1659, accessed 5 September 2008.
- MacRae, E. (2004) 'The ritual use of ayahuasca by three Brazilian religions', in R. Coomber and N. South (eds) *Drug use and cultural contexts 'beyond the West': tradition, change and post-colonialism*, UK: Free Association Books, 27-45.
- Maffi, L. (ed.) (2001) On biocultural diversity: linking language, knowledge and the environment, Washington, DC: Smithsonian Institution Press.
- Massey, D. (1995) 'The conceptualization of place', in D. Massey and P. Jess (eds) *A place in the world? Places, cultures and globalization*, Oxford: Oxford University Press/The Open University, 45-85.
- May, C., & Sell, S. K. (2006) *Intellectual property rights: a critical history*, Boulder, CO: Lynne Rienner Publishers.
- McGaa, E. (1990) Mother Earth spirituality: native American paths to healing ourselves and our world, San Francisco: HarperCollins Publishers.
- McKenna, D. J. (1999) 'Ayahuasca: an ethnopharmacologic history', in R. Metzner (ed) *Ayahuasca: hallucinogens, consciousness, and the spirit of nature*, New York: Thunder's Mouth Press, 187-213.
- McKenna, D. J. (2004) 'Clinical investigations of the therapeutic potential of ayahuasca: rationale and regulatory challenges', *Pharmacology & Therapeutics*, 102, 111-129.
- McKenna, D. J. (2005) 'Ayahuasca and human destiny', *Journal of Psychoactive Drugs*, 37(2), 231-234.
- Merson, J. (2000) 'Bio-prospecting or bio-piracy: intellectual property rights and biodiversity in a colonial and postcolonial context', *Osiris*, 15, 282-296.

- Meyer, C. J., & Royer, D. (eds.) (2001). *Selling the Indian: commercializing and appropriating American Indian cultures*, Tucson, AZ: University of Arizona Press.
- Mgbeoji, I. (2006) *Global biopiracy: patents, plants and indigenous knowledge*, Vancouver: University of British Columbia Press.
- Miller, L. S. (1984) United States Patent No. PP5,751, United States Patent Office.
- Milroy, J. S. (1999) A national crime: the Canadian government and the residential school system, 1879 to 1986, Winnipeg: University of Manitoba Press.
- Narby, J. (1998) *The cosmic serpent: DNA and the origins of knowledge*, New York: Jeremy P. Tarcher/Putnam.
- Narby, J. (2005) *Intelligence in nature: an inquiry into knowledge*, New York: Jeremy P. Tarcher/Putnam.
- Newman, E. B. (1994) 'Earth's vanishing medicine cabinet: rain forest destruction and its impact on the pharmaceutical industry', *American Journal of Law & Medicine*, 20(4), 479-501.
- Novak, M. (1996) *The fire of invention, the fuel of interest: on intellectual property*, Washington D.C.: The American Enterprise Institute Press.
- Ortiz, R. (2003) 'Notes on religion and globalization', *Nepantla: views from South*, 4(3), 423-448.
- Ott, J. (1994) *Ayahuasca analogues: pangæan entheogens*, Kennewick, WA: Natural Products Company.
- Panakagos, A.N. & Horst, H.A. (2006) 'Return to cyberia: technology and the social worlds of transnational migrants', *Global Networks*, 6(2), 109-124.
- Pike, S. M. (2004) *New age and neopagan religions in America*, New York: Columbia University Press.
- Polari de Alverga, A. (1999) Forest of visions: ayahuasca, Amazonian spirituality, and the Santo Daime tradition (R. Workman, Trans.), Rochester, VT: Inner Traditions.
- Posey, D. (1990) Intellectual property rights and just compensation for indigenous knowledge, *Anthropology Today*, 6(4), 13-16.
- Quijano, A. (2000) 'Coloniality of power, Eurocentrism, and Latin America', *Nepantla: views from South*, 1(3), 533-580.
- Reichel-Dolmatoff, G. (1997) Rainforest shamans: essays on the Tukano Indians of the Northwest Amazon. London: Themis Books.
- Riba, J., & Barbanoj, M. J. (2005). Bringing ayahuasca to the clinical research laboratory. *Journal of Psychoactive Drugs*, 37(2), 219-230.
- Rochester, J. W. (2006) 'February 22—letter to Dr. Domingos Bernardo requesting permit to export daime tea from Brazil to Canada', Montreal, QU: Ceu do Montreal.
- Rodrik, D. (1997) *Has globalization gone too far?*, Washington, DC: Institute for International Economics.

- Rose, W. (1992) 'The great pretenders: further reflections on whiteshamanism', in M. A. Jaimes (ed) *The state of native America: Genocide, colonization, and resistance*, Boston, MA: South End Press, 403-421.
- Ruck, C., Bigwood, J., Staples, D., Ott, J., & Wasson, R. G. (1979) 'Entheogens', *The Journal of Psychedelic Drugs*, 11(1-2), 145-146.
- Shand, P. (2002) 'Scenes from the colonial catwalk: cultural appropriation, intellectual property rights, and fashion', *Cultural Analysis*, 3, 47-88.
- Shanon, B. (2002) *The antipodes of the mind: charting the phenomenology of the ayahuasca experience*, Oxford: Oxford University Press.
- Shiva, V. (1997) *Biopiracy: the plunder of nature and knowledge*, Boston, MA: South End Press.
- Smith, H. (2000) Cleansing the doors of perception: the religious significance of entheogenic plants and chemicals, New York: Tarcher-Putnam.
- Smith, C., Burke, H., & Ward, G. K. (2000) 'Globalisation and indigenous peoples: threat or empowerment?', in C. Smith and G. K. Ward (eds) *Indigenous cultures in an interconnected world*, Vancouver: University of British Columbia Press, 1-24.
- Stannard, D. E. (1992) *American holocaust: Columbus and the conquest of the New World*, New York Oxford University Press.
- Street, P. (2003) 'Stabilizing flows in the legal field: illusions of permanence, intellectual property rights and the transnationalization of law', *Global Networks*, 3(1), 7-28.
- Taylor, B. (1997) 'Earthen spirituality or cultural genocide?: Radical environmentalism's appropriation of Native American spirituality', *Religion*, 27(2), 183-215.
- Taylor, C. (1991) The malaise of modernity, Concord, ON: Anansi.
- Tomlinson, J. (1999) Globalization and culture, Cambridge: Polity Press.
- Tupper, K. W. (2002) 'Entheogens and existential intelligence: the use of plant teachers as cognitive tools', *Canadian Journal of Education*, 27(4), 499-516.
- Tupper, K. W. (2008) 'The globalization of ayahuasca: harm reduction or benefit maximization?', *International Journal of Drug Policy*, 19(4), 297-303.
- Unión de Médicos Indígenas Yageceros de la Amazonía Colombiana (1999) 'The Yurayaco Declaration', www.amazonteam.org/umiyac-declaration.html, accessed 5 September 2008.
- United Nations (1971) *Convention on psychotropic substances*, Vienna: United Nations Economic and Social Council.
- Welch, C. (2002) 'Appropriating the didjeridu and the sweat lodge: new age baddies and indigenous victims?', *Journal of Contemporary Religion*, 17(1), 21-38.
- Wernitznig, D. (2003) Going native or going naive?: White shamanism and the neo-noble savage, Lanham, MD: University Press of America.
- Whitehead, N. L., & Wright, R. (eds.) (2004). *In darkness and secrecy: the anthropology of assault sorcery and witchcraft in Amazonia*, Durham, NC: Duke University Press.

- Winkelman, M. (2005) 'Drug tourism or spiritual healing?: Ayahuasca seekers in Amazonia', *Journal of Psychoactive Drugs*, 37(2), 209-218.
- Wiser, G. M. (1999) 'PTO rejection of the "ayahuasca" patent claim', www.ciel.org/Biodiversity/ptorejection.html, accessed 5 September 2008.
- Wiser, G. (2001) 'US Patent and Trademark Office reinstates ayahuasca patent', www.ciel.org/Publications/PTODecisionAnalysis.pdf, accessed 5 September 2008.
- World Intellectual Property Organization (n.d.) *Intellectual property and traditional cultural expressions/folklore*, Geneva: World Intellectual Property Organization. www.wipo.int/freepublications/en/tk/913/wipo\_pub\_913.pdf, accessed 5 September 2008.
- York, M. (2001) New age commodification and appropriation of spirituality', *Journal of Contemporary Religion*, 16(3), 361-372.