



A Theoretical Transdisciplinary Approach to Drug Use: History, Anthropology and Culture

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The transdisciplinary approach in drug use issues is the only condition for developing a global and holistic conception that does not neglect important parts of this serious world problem. Transdisciplinarity is concerned both with what is within the various disciplines within them, as well as with what is beyond them. In this article, I will argue that drug use is a transdisciplinary problem. Starting antiquity, drugs were not used for hedonistic purposes to cause pleasure as it happens today. Differences in the physiological and psychological effects of drugs account for some differences among drug cultures. Many subcultures exist outside mainstream society and thus are prone to fragmentation. Many of the core values of illicit drug culture involve the rejection of typical society and cultural values. Finally, one major change that has occurred in drug cultures in recent years is the development of Internet communities organized around drug use to which specialists must provide a prompt response.

Keywords: drug use, transdisciplinarity, anthropology, culture, online drugs use, history

1 Introduction

Drug use is more than a medical and psychological phenomenon; it is a social, anthropological, economic and cultural phenomenon. That is why it needs to be approached from a transdisciplinary perspective in order to have a proper and clear understanding. One single explanation is insufficient, incomplete and wrong. In a multidisciplinary world, physicians and psychologists have to address psychotherapeutically taking into account the culture to which the users belongs. Psychiatrists often have the wrong tendency to look at cases with purely individual explanations and clinical characteristics. Drug use occurs in a family, social, national, geographical, and multiple meaning for that age. Thus, a European user needs to be analysed differently than an Asian user. Ignoring these aspects is also a mistake in the therapeutic approach.



Figure 1: Huge drug fields in Afghanistan (photo credit www.washingtontimes.com).

Starting with the last decades, the multidisciplinary approach in some countries of Eastern Europe has been in practice in clinical settings, in almost all hospitals and psychology clinics. In the therapy and recovery team, there are already specialists of different professions such as psychiatrists, psychologists and social workers. The patient is treated individually from a psychiatric point of view, then from a psychological point of view and finally from a social care point of view. Clinical sessions are already multidisciplinary. Nevertheless, in practice, you can see how the files of the specialists are divided into psychiatric files, psychological records and social investigation papers.

This is still the case in the Eastern European countries. On the contrary, in US transdisciplinary approach has become of interest in the early 1990s. Multiple governmental agencies in the United States along with private donors support this notion of collaborative public health research efforts and have been integral in developing collaborative partnerships and research centers that are focused on an array of social problems and issues [1][2]. For instance, The Transdisciplinary Tobacco Use Research Centers was founded in 1997 [3]. In universities or privately, institutes have been set up to research topics of public health interest: obesity, cancer, fibrotic diseases, and childhood trauma [4].

There has been an increasing recognition of the need for research that can go beyond the boundaries of traditional academic disciplines to better address the issue of mental health [5].

About drugs was written a lot and still insufficient. The American psychiatrist Nesse had calculated about 18,000 articles on drug use by the late

1990s [6]. Since then, at least other 18.000 articles. Over 6,000 species and plants with addictive effect are known. Throughout history, drugs were used for magical-ritual-religious purposes. Today, but more in the past there were movements that encourage consumption especially for spiritual valences. At the same time, states are waging a war with the big international drug traffickers. Revenues from drug trafficking are huge. Other states have legalized drugs considered mild, while some states support their medical role. Although they have a long history and have done much harm, drugs become banned very late. For instance, in 1378, the emir Soudon Sheikhouni of Arabia tried to put an end to the Indian hemp abuse among the poor, destroying all the hemp, closing all the hemp food and ordering the teeth of the condemned [7]. However, in Europe, in England, cocaine was banned only in 1916 (Law 40b) [8]. In the USA due to the killing effects on society, the Supreme Court banned pharmacists from prescribing drugs only six years later. Heroin was banned in 1905, marijuana in 1925, amphetamines in 1965, LSD in 1966, cocaine in 1970 and Ecstasy (MDMA) in 1985.

By building an anthropological, cultural and historical transdisciplinary approach, we can have a complete picture and we can then understand the medical and psychological aspects of drug addiction. Drugs are being grown in many countries of the world because their industry brings huge incomes. The United Nations Office on Drugs and Crime showed that the opium poppy harvest (see Figure 1) in Afghanistan represented 92% of world production and exceeded global demand by 30%, totalling 6,100 tons, with opium crop revenues of \$3 billion annually

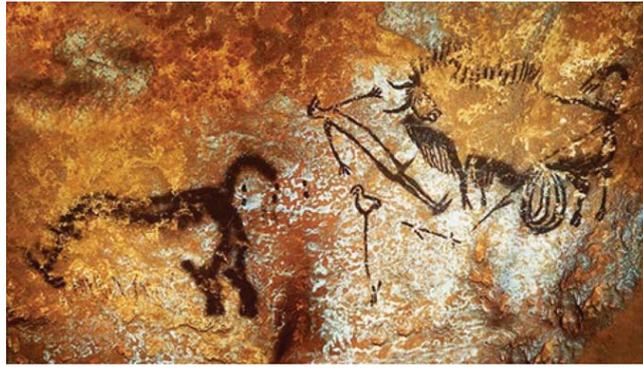


Figure 2: Shaman from Ariège cave <http://www.faculty.umb.edu>.

[9].

Afghanistan has remained the largest illegal opium producer in the world and most heroin found in Europe is believed to have been produced in this country or in neighbouring countries as Iran or Pakistan. The discovery of two laboratories for morphine transformation in heroin in Spain and a laboratory in the Czech Republic during the period 2013-2014 shows that currently heroin could also be produced in Europe [10].

The most recent world drug report estimates in 2013, 246 million people, that is, 1 in 20 aged 15 to 64, consumed a forbidden drug, which means an increase of 3 million over the previous year [11]. It is very serious that, although the world's population has increased, illegal drug use has remained stable.

2 Drugs Throughout History

Drug use has been integrated into social life and has been linked to major concerns of human beings such as trade, war, love, sexuality, medicine, art, music, or religion. The origin of drug use is known from the Palaeolithic for both therapeutic effects (sedative, hypnotic analgesics) and magical-religious purposes [12]. If we think of the harsh lifestyle of the Palaeolithic populations, the dangers, the suffering of hunger, the diseases, the attacks of prey animals, all this has led to the creation of a magical-religious vision of the world, a kind of primordial animism, with forms of shamanic worship. Archaeological evidence suggests that *Homo sapiens* has used different psychotropic substances since prehistory. American researcher Michael Winkelman from the Department of Anthropology (Arizona State University) claims that the upper Palaeolithic people had an innate instinct to experience altered states of consciousness

with psychotropic substances [13].



Figure 3: Lascaux cave <http://www.ancient-origins.net>.

In this respect, as testimonies are the images discovered in the caves of France (see Figures 2 and 3) in which the shamans were represented in the trance. In the “*Les Trois Freres*” cave from Ariège, dated from the Magdalenian Age (the Upper Paleolithic Age) discovered on July 20, 1914 by the three children of Count Henri Bégouën and popularized by the 18-year-old Henry Breuil’s research appears to be a shaman in erection. This is of paramount importance, because is just one of the five representations of this Magdalenian age male organ as opposed to the female sexual organs that are quite common [9]. The second cave is Lascaux (Dordogne) where the shaman lies on the back, with the ritual stick next



Figure 4: The mandrake, *Mandragora officinarum* (AKA M, autumnalis) used in Bible by Rachael <https://godasagardener.com>.

to him and a bird representing his soul traveling outside the body. The fact that the shaman is in erection proves he is alive and it is not a dead body. Therefore, this image of about 16,000 years is the oldest representation of a man in trance under the effect of a hallucinogenic drug. By deduction, we can declare that shamans used hallucinogenic drugs [14].

In the Neolithic, drug use becomes a new dimension with the change in the characteristics of *Homo sapiens sapiens*. People are starting to use plants for non-religious and non-medical purposes; alcohol is used in the Neolithic, when people find fermentation of fruits and seeds. Thus, the first paleoarcheological attestations refer to pots containing wine residues found in Georgia (Shulanan) 8,000 years ago and in northern Iran (Haji Firuz Tepe) 7,500 years ago. Concerning drug use, there are other evolutionary hypotheses such as that of Hill and Chow, which believe that environmental instability is a key factor for high alcohol intake by young men [16]. There is also a third hypothesis that ancestral people have consumed psychotropic substances and other mood-modifying substances as simple foods. For example, the betel nut was chewed by the people of Micronesia as food as early as 2660 BC. Hr, according to the research of Professor Elisa Guerra-Doce, from the University of Valladolid (Spain) [17]. Regarding the Old Testament world, Oxford archaeologist Andrew Sherratt launched the hypothesis that residents of a first Neolithic settlement of the world, the city

of Jericho, traded with medical and psychoactive substances easy to carry [18]. In Genesis (30: 14-19), Rachael obtains from Lia fruit of mandrakes to become fertile and to give Jacob the fifth son.

Archaeologist Dr. Stephan F. de Borhegyi, who particularly studied late Mayan culture, was convinced that hallucinogenic mushroom rituals were a central feature of the Mayan religion. He based his theory on identifying a cult of mushroom-shaped mushrooms that emerged in the mountainous region of Guatemala and in the Pacific coastal region around 1000 BC. Hr. [19].

Svetla Balabanova, a German researcher, along with her colleagues using hair, skin and muscle taken from the head and abdomen claimed in an article in the *Naturwissenschaften* in 1992 that traces of cocaine, hashish and nicotine were found in 9 Egyptian mummies dated 1070 BC-395 AD. [20]. All tissues were sprayed and dissolved in sodium chloride, homogenized and centrifuged, measured by radioimmunoassay (Merck, Biermann) and mass gas chromatography/mass spectrometry (Hewlett Packard) called GCMS [21]. British Professor Rosalie David claimed that mummies are false. She made her own scientific investigations on mummies, including the famous Mother Earth Woman (Henot Tawi), touring in Munich to evaluate herself the mummies studied by Balabanova's group of researchers, but for reasons of religious respect she did not have the opportunity to investigate these mummies [22].

2.1 Drugs - an Anthropological Perspective

Modern anthropologists take into account the influences of drug use including the phenomenon of industrialization, urbanization, and migration that have led to the loss of traditional social control methods, making the individual vulnerable to stress and modern life. The introduction of synthetic drugs and intravenous drugs that have led to HIV/AIDS infection has added a new dimension to the drug problem. Until the early 1970s, “anthropology has not yet developed an explicit tradition of drug research, particularly in drug abuse” [23]. The explanation was that anthropology sought to understand rather normative behaviour in different cultural contexts than what had come to be called a deviant behaviour in sociology [24]. In addition, anthropology has been oriented towards a functionalist perspective that has directed researchers’ attention to the way in which parts of a culture have been integrated and how they reinforce each other. A consequence, as Bourgois notes in his book, historically speaking, anthropologists have avoided tackling taboo topics such as violence, sexual abuse, addiction, alienation and self-destruction [25]. Over the 1970s, this has begun to change, especially under the influence of the drug revolution [26]. Some years after the outbreak of the pandemic, the potential contribution of anthropology to the study of the links between drug use and HIV infection and disease progression has been recognized and ethnographic methods have gained value in public health efforts [27]. Another contribution of anthropology to the study of addictive behaviours is in terms of the therapeutic model. Starting from the premise that much of the therapeutic programs have failed, American anthropologists, including Winkelman, discuss the analysis of the relationship between conscious states with culture and psychobiology, and especially the applicability of shamanic therapeutic mechanisms in addressing drug addiction.

Winkelman analysed comparatively the physiological aspects of different shamanic practices of changing consciousness, illustrating their common effects in many different procedures and their inherent therapeutic effects of dependence involving stress reduction. For example, the effects of transcendental meditation in treating substance dependence have shown the direct influence of meditation on physiological factors that maintain the addiction while promoting goodwill and offering gratifying experi-

ences by encouraging contact with deeper levels of mind and emotions [28]. Shamanic practices induce a relaxation response, causing integrative theta wave discharges, stimulate endogenous opioid production, and increase serotonergic mechanisms and well-being. Regarding alcohol, in 1950, Heath conducted ethnographic research among Camba, an East Bolivian population, who noticed that most Camba adults consumed large quantities of rum and remained drunk for several continuous days at least twice a month [29]. He found that among Camba alcohol consumption was socially appreciated, and it was the purpose of such drinking festivals. However, alcoholism, as the form of addiction that the medical literature notices, as it is definitive and characterized as substance addiction, has not been identified in the Camba community. No signs of antisocial behaviour, such as the inability to live in the community by rejecting social responsibilities, incidents such as interpersonal aggression, or evidence of alcohol-related sexual disinhibitions, have been found. On the contrary, high-dose alcohol consumption, even to the point of unconsciousness, contributes to social and group solidarity, including facilitating “relationships between people who are normally isolated and introverted [30].” Therefore, Heath proposed a cultural model of alcohol consumption. According to this model, association of alcohol consumption with a specific problem, be it a physical, economic, psychological or interpersonal one, is quite rare among cultures throughout history.

In 1976, Mircea Eliade, in the *History of Beliefs and Religious Ideas*, approached the question of whether the type of Zarathustrian specific religious experience may be close to the ecstatic experiences characteristic of Central Asian shamans. One of the strong arguments is that various psychotropic plants, especially cannabis (bhang), were used to obtain ecstasy [31]. Eliade hardly admitted the existence of a certain type of shamanism in the Palaeolithic age: If by this term we understand any ecstatic phenomenon and any magical technique, it is obvious that some shamanic aspects will be detected in Indo-Europeans or other ethnic or cultural collectives [32].

In 1981, Culianu held a conference at the University of Groningen on the use of narcotic plants by witches in medieval Europe where he approached the forms of involuntary poisoning with rye infested with *Claviceps purpurea*, as well as the magic flights caused by hallucinogenic alloys. Here is what he

wrote in the study entitled *The Reality of Witchcraft: I have seen many drug addicts and it does not pass one day not to hear about them, besides reading a whole literature about their experiences. I am convinced that the use of hallucinogens - under the supervision of "specialists" and within the initiatory confederations - is the origin of certain beliefs of mankind, especially those related to soul mobility and magic flight. In the case of witchcraft, there is no shadow of doubt that this is the case* [33].

Contrary to the opinion of doctors, most of the consequences of alcohol consumption are mediated by cultural factors. Rather than being determined in a narrow sense by pharmacological factors [34]. Although it cannot be questioned, that alcohol is a strong chemical substance with strong effects on brain function. It is critical for the cultural model in determining the effects of excessive alcohol consumption that cultural beliefs are about the effects of alcohol. We understand that addiction is not based only on the free will to consume or on the conscious choice of the individual to choose, yet it is more profound [35]. Of equal importance is the issue of **significance**. As a culturally constructed social practice, alcohol consumption (and the type of consumption and context of consumption) involve emotional significance about various issues including social solidarity, identity, recognition of new social status and achievement, nostalgic memories, honouring loved ones, hospitality, mourning, transitions, and celebration of cultural heroes, privacy, entertainment, health, and religious experience [36].

According to MacAndrew and Edgerton, "the way people develop when they are under the influence of alcohol is determined not by the toxicity of alcohol, but by what society does, by the significance that society gives to those who are intoxicated" [b]. As Marshall points out, the most important contribution that anthropology has brought to the study of alcohol and in a broad sense in the field of drugs has been to demonstrate non-anthropologists the importance of socio-cultural factors to understand the relationship between alcohol and human behaviour. Timothy Leardy and Richard Alpert of Harvard University have studied the effects of psychotropic substances and have emphasized the potential of the cortex, not the drug, the drug being just an instrument.

Moreover, social norms, community-shared rules that prescribe desirable or undesirable behaviour,

behaviours that people consider vital to their welfare, and the values they adopt, sanctions, rewards, or socially imposed penalties that cause people to adapt to norms, is in fact the ingredients of a culture. That is why drug use needs to be analysed and researched within a culture [38]. For example, in Indian culture, which enjoys a distinct cultural diversity, there is a long history of the use of herbal substances such as cannabis and opium for at least 5 thousand years. Officially one million heroin addicts are registered in India, unofficially it is estimated that their figure reaches 5 million. Cannabis products such as charas, bhang or ganja are consumed because of religious holiness and association with some Hindu deities. What would be a psychotherapeutic approach to what is culturally acceptable? Even if it causes medical and psychological problems. In a few words, I just want to remember other aspects of the drug-influenced culture.

Drugs and music. Ludwig van Beethoven was a consumer of red wine, hence the cirrhosis that caused his death. On the deathbed, on the arrival of the last pack of 12 red wines, he declared "sin, sin, too late". Hector Berlioz composed *Fantastic Symphony* under the influence of opium consumption. Another opium consumer was also Frédéric Chopin, who died prematurely at age 39, probably suffering from temporal lobe epilepsy, causes of hallucinations. Robert Schumann is known to have consumed mercury, quinine and arsenic. Balzac was addicted to coffee, and Freud cigarettes, which caused his death.

Later, the link between music and drug use is a phenomenon known especially in America through what the hippie movement meant in the 1960s-1970s when young people born after the war and revolted against their parents' society began to be interested in non-Western civilizations, non-Christian religions, magical-ritual practices, yoga and drugs. Perhaps the most known drug, called disco drug in the 1980s, was MDMA known as Ecstasy became an essential part of parties with intense electronic music, accompanied by lightning games and unleashed dances. The bars in the Spanish island of Ibiza have played an important role in popularizing this drug [39].

Regarding drugs and sexuality, in the European Middle Ages, two were ways of enhancing the sexual ardour of partners: performing magic rituals and administering aphrodisiacs. Often both can be found in the writings of those condemning these practices, such as the clergy, bishops, and inquisitors. In the

11th century, Bishop Burchard de Worms fights women who made love spells. The penance proposed by the German bishop for the atonement of the demonic sin was two years of fasting (only with water and bread), but the penalty rose to five years for women who, for the same purpose, “take the blood of their menstrual, mix them in food, or in the drink and give it to my husband” [40].

2.2 A New Culture: The Online Culture of Drugs

A major change that has taken place in drug cultures in recent years is the development of Internet communities around drug use and the facilitation of drug use, including information on drug use, production and sales.

Drugs can be purchased from various online merchants, including by minors. Drug traffickers often use children under the age of 14 as intermediaries because they cannot be criminally responsible. Online communities have stepped up their work, with the online environment being extremely difficult to monitor by anti-drug officers. On-line communication has various advantages: light-drug delivery orders from home, at any hour, including traditional mail services, parcels, or even home delivery companies, including taxis. Other types of online communities are those that develop around sites or discussion forums where individuals can describe their drug experiences, find information about buying and using drugs, and where they can discuss issues from interests musical to legal issues. Club drugs and hallucinogens are the most debated types of drugs, while online communities involve discussing all types of licit and illicit substances, including stimulants and opioids.

3 Conclusions

Perhaps the most important thing in both therapy and research is a transdisciplinary team. Research institutes that develop protocols with such a team have been able to bring new discoveries into therapy [41].

What is not yet practiced in the Eastern Europe is precisely this deeper approach; the transdisciplinary approach of the patient who needs to be cured is a deeper one. Transdisciplinarity means overcoming boundaries and disciplines. Transdisciplinarity does

not mean transferring methods from a discipline in another, from medicine to psychology, nor the study of a patient in one and the same discipline through several disciplines suddenly. Transdisciplinary research is not antagonistic but complementary to pluri- and interdisciplinary research. The approach has the potential to forge new understandings of major public health problems by breaking down the usual barriers to shared scholarship [42].

If in classical disciplinary research, the patient is excluded, a research from a transdisciplinary perspective involves its inclusion; that is why the psychologist, the therapist must get involved and not just an impartial observer of the facts he submits to his investigations. Moreover, this means that the therapist himself has a transdisciplinary attitude. So, the role of his transdisciplinary attitude is to act in the evolutionary sense by overcoming binaries and antagonisms. It is that attitude that is not in contradiction with any kind of psychotherapeutic approach. We know very well that in psychotherapy there are approaches that contradict each other. The simplest example is the contradiction and hatred between post Freudian psychoanalysis approach and cognitive behavioral psychotherapy. Never two therapists of these approaches will sit together. However, having at the heart of the therapy the real problems of the patient, the ones they face every day, understanding his life, the specialists can reach a superior level of knowledge.

Practically, in psychological evaluation charts, there should be questions about the cultural history of drug use and any other information that will give us a unique understanding of the illness. Such an approach is not focusing on subjects, but transcending them. In this article, I tried to offer a transdisciplinary understanding of drug issues highlighting historical, cultural and anthropological aspects. Drug cultures can change rapidly and vary in geographic, socio-economic, and generational areas, so there is a need for a clear understanding of current drug cultures and how these cultures support use. Also, how pose a health risk to the population. In the United States, the transdisciplinary approach is mandatory. For instance, models of therapy formats and training have been developed for specialists who focus on the cultural basis of drug use, on the cultural characteristics of groups of people, especially adolescents, on what values, beliefs, traditions, habits, factors such as sexuality, music styles, dress styles, communica-

tion, socializing patterns, political ideologies, and other factors. As new types of crops influence drug use and how new types of drugs influence culture, it remains an extremely vast and interesting topic to investigate. The use of technology and social media influences initiation, maintenance and consumption especially among young people. Psychologists today needs to analyse the effects of drugs on the human body together with the medium and long-term consequences on individual health and especially on public health.

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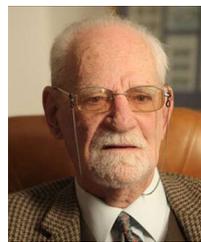
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