

The Cannabis Question

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Abstract

Hemp (Cannabis sativa L.), which grows everywhere in the temperate zone, is one of the oldest plants cultivated by man, and there are countless cultural and historical records of its important industrial, commercial, food, medicinal and spiritual role in human culture over thousands of years. Drugs derived from hemp are often referred to simply as the collective name Cannabis, which refers to the genus name Cannabis in the Latin name of the plant.

There are numerous historical records of the effects of cannabis consumption on the body, mainly mentioning medicinal uses. By examining the cannabis phenomenon, we can trace the path from total freedom to strict prohibition and back to free consumption of the material what is currently considered a drug in most countries.

After nearly fifty years of a total prohibitionist approach (with the exception of the special situation of Dutch coffee shops under strict licensing), we witnessed a slow paradigm shift in cannabis use in the early 2010s. It seems very likely that the half-century-long strict ban is coming to an end. In the debate between the arguments for and against consumption, which have been in opposition for many years, it is very much the case that public opinion in more and more countries is shifting towards acceptance rather than prohibition.

Keywords: *hemp, Indian hemp (Cannabis sativa L. var. Indica), drugs, THC, Cannabis consumption, prohibition, paradigm shift, legalization, decriminalization*

I. Introduction

Hemp (*Cannabis sativa L.*), which grows everywhere in the temperate zone, is one of the oldest plants cultivated by man, and there are countless cultural and historical records of its important industrial, commercial, food, medicinal and spiritual role in human culture over thousands of years. The 'fibre' hemp (*Cannabis sativa L. var. vulgaris*) is planted as an agricultural crop and grows to several meters in height, while its stems are used to produce fibers, rope, canvas, paper, hardboard sheeting, animal bedding, thermal and sound insulation panels, geotextiles for soil work etc., and its seeds are used to produce oil.

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A very widespread biological variant of the hemp plant, the wild hemp (*Cannabis sativa* L. var. *ruderalis*) is a well-known weed. Another variant of the plant, the Indian hemp (*Cannabis sativa* L. var. *Indica*), which is used as the raw material of the drug, also grows in the Central European climatic conditions, but since its cultivation is not allowed, it takes place illegally, mainly under artificial conditions, in plastic tents, greenhouses and cellars.

II. Drugs Derived from Hemp

Drugs derived from hemp are often referred to simply as the collective name Cannabis, which refers to the genus name *Cannabis*, the Latin name of the plant.

The resinous substance produced by the inflorescence of the fruiting specimens of the dioecious plant and the glandular hairs of the leaflets around the inflorescence contains more than 60 alkaloids, of which the compound commonly abbreviated THC (delta-9-trans-tetrahydrocannabinol) is the main one that produces the psychoactive effects desired by drug users in the human body. The THC content of Indian hemp, also known as drug hemp, is generally between 1 and 2%, that of fiber hemp is around 0.2% and that of wild hemp varies widely, generally being much lower than that of fiber hemp.

Three types of illegal preparations are made from the hemp plant, which is the raw material for the drug: marijuana, hashish and hashish oil. Marijuana (*Cannabis*): the intensely fragrant, dried ground extract of the fruiting inflorescence and leafy, flowering shoots of the Indian hemp plant. The psychoactive ingredient content is usually 1-2%. Hashish (*Cannabis* resin) is a resin squeezed from the glandular hairs of the plant's fertile flowers and the leaves around the inflorescence, with a THC content of 10 to 20%. The THC content of cannabis oil obtained from solvent extraction can be as high as 30-40%.

III. History of Cannabis Consumption

There are numerous historical records of the effects of cannabis consumption on the body, mainly mentioning medicinal uses. The use of cannabis as a pleasure agent first began and spread in Europe and the United States of America in the 1800s among artists. But it should also be noted that the United States Pharmacopeia, published in 1850, recommended cannabis as a treatment for more than 100 different ailments (nerve pain, tetanus, typhoid, cholera, dysentery, alcoholism, opiate addiction, anthrax, leprosy, urinary incontinence, arthritis, tonsillitis, dementia, heavy intense menstrual bleeding, bloody urine etc.).

The drug carrier of cannabis began in the United States in the early 1900s. At first, Mexican guest workers began to consume it because of its fatigue reducing and stimulating effects, but a soon wider and wider range of people became affected not only in the United States but also in Europe.

IV. The Cannabis Phenomenon – From Total Freedom to Strict Prohibition

By examining the cannabis phenomenon, we can trace the path from total freedom to strict prohibition and back to free consumption of the material that is currently considered a drug in most countries.

The evolution of drug policy, i.e. the way in which societies in different countries relate to the consumption, production and distribution of drugs, was one of the most important social phenomena of the 20th century. However, this process has not stopped to this day, generating a serious debate today between strict prohibitionists and more lenient, more permissive positions. This includes the "light drug vs. hard drug" controversy and the equally controversial "gateway drug theory", which argues that marijuana use leads to the use of harder drugs over time. In addition, perhaps one of the most acute drug issues of the present century, alongside a wide variety of 'designer' drugs with their many dangers, is the problem of Cannabis liberalization.

The oldest archaeobotanical evidence of hemp use was found in the Upper Paleolithic (also known as Late Stone Age), estimated to be around 26,000 years old, from excavations near Pavlov and Dolni Vestonice in South Moravia (Czech Republic)¹.

Further research by Czech and American archaeologists has found that hemp was already known and used by Stone Age man, mainly for the production of textiles, ropes, and hunting and fishing nets, but for human consumption or other purposes this excavation has not yet provided evidence².

The first medicinal use of Cannabis is indicated by the 5,000-year-old records left over from the time of Emperor Chen Nung, considered the father of Chinese agriculture. According to the records, the scientist emperor recognized that plants, in addition to being food for humans and domestic animals, also contained poisons and antidotes, as well as a number of other medicinal substances. Legend has it that the effect of these substances was first tested by the ruler, blessed with special abilities, on his own. It is also by this time that the healing power of Cannabis, can be discovered. According to Chen Nung's writings, the flowers of female individuals of the hemp plant contain very large amounts of yin energy, the lack of which, according to traditional Chinese philosophy and medicine, ends in rheumatism, malaria, beriberi, dementia, menstrual cramps. and the development of arthritis, so consuming Cannabis is a sure antidote to these complaints. But at the same time, the notes also point out that consuming too much hemp seed can easily enable an individual to see demons, and that long-term consumption enables one to communicate with spirits³.

Hundreds of the many thousands of clay tablets from the Assyrian Empire, from 3,000 to 2,000 BC, from the area of northern Mesopotamia at the Tigris and Euphrates, contain medical records that show that the most important healing agent of the age is it was cannabis. Cambell Thompson's dictionary, "The Dictionary of Assyrian Botany," published in 1949, on page 221 interprets the term Gan-zi-gun-nu, which, according to

¹ H. Pringle, *Ice age communities may be earliest known net hunters*. Science 1997, 277, pp. 1203-1204.

² M.P. Fleming, R.C. Clarke, *Physical evidence for the antiquity of Cannabis sativa L.*, in Journal of the International Hemp Association 5(2), 1998, pp. 80-92. <http://www.druglibrary.net/olsen/HEMP/IHA/jiha5208.html> [accessed on 28 January 2017]; L.O. Hanus, *Pharmacological and Therapeutic Secrets of Plant and Brain*, 2009, Med Res Rev. 2009 March, 29(2), pp. 213-71, doi: 10.1002/med.20135. PMID: 1877572.

³ Luesink, D., *The History of Chinese Medicine: Empires, Transnationalism and Medicine in China, 1908-1937* in Iris Borowy (ed.), *The History of Chinese Medicine: Empires, Transnationalism and Medicine in China, 1908-1937*, Frankfurt am Main, Berlin, New York, Oxford, Peter Lang Publishing Group, http://www.academia.edu/1932249/_The_History_of_Chinese_Medicine_Empires_Transnationalism_and_Medicine_in_China_1908-1937_in_Uneasy_Encounters_The_Politics_of_Medicine_and_Health_in_China_1900-1937_edited_by_Iris_Borowy_Frankfurt_am_Main_Berlin_New_York_Oxford_Peter_Lang_2009 [accessed on 28 January 2017].

Thompson, means “the drug which takes away the mind,” which Thompson says is nothing but hashish⁴.

The ancient Egyptians also knew the effects of Cannabis on the body. The first written trace of the medicinal use of Cannabis is found in the Ramesseum III Papyrus from 1700 BC and then in the Ebers papyrus dated to around 1550. The latter 110 “pages” of slightly more than 20-meter-long, relatively intact papyrus scrolls contain descriptions of nearly 900 recipes for the cure of various diseases. Most of them contain honey and minerals in addition to the most important active ingredients, mainly of plant and, less commonly, animal origin. Among the more than 500 herbs used in the recipes is hemp, the leaves, inflorescences and seeds of which, mixed with honey, were used to relieve pain and reduce inflammation⁵.

Cannabis also played an important role in Hinduism. According to mythology, Shiva, one of the most important Creator Goddess of Hinduism, once spent the night sleeping among hemp plants and then woke up in the morning to eat the green leaves, which filled him with pleasant freshness. From then on, hemp leaf became one of the Goddess’s favourite foods⁶.

The oldest and most fundamental sacred scriptures of Hinduism, containing the esoteric wisdom of the universe, according to the most widely accepted view today, the Vedas dating from 1200-1000 BC, one of the five sacred plants of India was hemp. It was believed to have magical powers to protect against disease, prolong life and ward off malevolent demons.

Religious scholars say the author of the Zend-Avesta sacred writings, dated to the 7th century BC, considered the Persian equivalent of the Vedas, the Persian prophet Zoroaster himself was a user of *bhanga* (the equivalent of Hindu bhang), which helped bridge the metaphysical divide between heaven and earth⁷.

According to the famous Greek historian Herodotus, who lived in the 5th century BC, the use of Cannabis was also an integral part of Scythian culture. In Godley 1920’s English translation of Herodotus, we read about how the vapors rising from the hemp seeds scattered on the red glowing stones were used to purify the mind and body after the royal burials, which seemed very cruel to today’s eyes⁸.

When we talk about the role of the hemp plant in the history of mankind, we must not forget a material that is very important and indispensable to this day, paper. According to Chinese legends, an official named *Ts’ai Lun* was the first to produce paper from an aqueous mixture of crushed hemp fibres and mulberry bark around 105 BC.

The actual circumstances of the invention of papermaking are still disputed by scholars today, but one thing is certain: it happened in China sometime in the first few

⁴ C.R. Thompson, *A Dictionary of Assyrian Botany*, The British Academy, London, 1949, p. 221. http://www.samorini.it/doc1/alt_aut/sz/thompson-a-dictionary-of-assyrian-botany.pdf [accessed on 28 January 2017].

⁵ L. Manniche, *An Ancient Egyptian Herbal*, British Museum Press, London, 2006.

⁶ T.H. Mikuriya, *Excerpts from the Indian Hemp Drugs Commission Report*, San Francisco, 1994, <https://books.google.co.in/books?id=Bq9Qm-7Q95sC&pg=PA38&dq=bhang+shiva&hl=en&sa=X&ei=uLijVZq9DojluQTfpJrACQ&ved=0CBwQ6AEwAA#v=onepage&q=bhang%20shiva&f=false> [accessed on 31 January 2017].

⁷ M. Eliade, *Shamanism*, Publisher: Princeton University Press, 1964, <http://blogsdelagente.com/macrimoniesq/free-shamanism-archaic-techniques-of-ecstasy-bollingen-series-general-pdf/> [accessed on 31 January 2017].

⁸ Hérodote: „*The Scythians then take the seed of this hemp and, crawling in under the mats, throw it on the red-hot stones, where it smoulders and sends forth such fumes that no Greek vapor-bath could surpass it.*” Godley (1920) Book 4, Chapter 75.

centuries BC, and it is also certain that the main raw material for the paper that replaced leather and silk as a writing medium was hemp in the beginning, and only later was it replaced by bamboo, straw, rags and wood⁹.

(Hemp-based paper production is now back in the spotlight because it is cheaper, less polluting and can significantly reduce deforestation, which has reached unbelievable levels.)

De Materia Medica, written around 50-70 AD by the Greek scientist Pedanios Dioscorides, who worked as a military doctor in the Roman Empire, was a basic work for the next 1500 years, describing 600 medicinal plants and the medicines they could be used to make, and mentioning cannabis in several places as a raw material for various medicinal mixtures, while the oil pressed from its seeds is recommended primarily for pain relief, especially earache. It is to this time that hemp seed was an important part of home medicine throughout the Middle Ages¹⁰.

Galen (129 AD – 201 AD), the most well-known Roman physician of Greek origin in ancient times, also mentions Cannabis in his writings, and we also know from him that wealthy Romans, in order to elevate the mood while drinking at feasts, they enjoyed eating cakes containing Indian hemp seeds¹¹.

When considering the history of Cannabis, it is important to mention the Cannabis culture of the Arab world, in which hashish has played a very important role for a very long time. According to early Arabic writings, the word hashish was originally used not only to describe the resin of cannabis, but also to describe the dried leaves, flowers and seeds, which were consumed in baked form in cakes. The Arabs were probably introduced to it by Chinese traders, and its spread as a means of enjoyment was facilitated by the rise of Islam in the early 7th century (as we know, Mohammed founded Islam in 622), which is known to consider the consumption of alcohol a sin and forbidden.

Until the end of the 16th century, the Arab world was characterized by the use of hashish in the form of eating. Hashish smoking, as we know it today, became a habit when tobacco arrived from the New World and the smoking craze swept through Europe, which did not escape the Arab world. The smoking of dry tobacco leaves became a model for hashish smoking. The pipe used for smoking needed only a slight modification to make it suitable for smoking cannabis resin. Until then, hashish was considered to be the leaves, inflorescences and seeds of the plant. But as it was realized that smoking the resinous substance (extracted mainly from the inflorescence and the shoot tops) produced a much more intense effect and lasted for many hours longer than smoking the pipe filled with dried plant debris, from then on it was mainly the resin that was used for smoking. Arab traders then spread hashish smoking wherever they went, including much of Africa, as far away as South Africa¹². (Booth, 2003)

⁹ T. Tsuen-Hsui, *Paper and printing, in Science and Civilisation in China*, ed. Joseph Needham, Volume 5, *Chemistry and Chemical Technology*, Part 1, Cambridge University Press, 1985, <http://www.arts.ucsb.edu/faculty/reese/classes/papermaking/Sci%20&%20Civ%201985%20p1-10.pdf> [accessed on 1 February 2017].

¹⁰ E.L. Abel, *Marijuana – The First Twelve Thousand Years*, Schaffer Library of Drug Policy, 1980, <http://druglibrary.org/schaffer/hemp/history/first12000/abel.htm> [accessed on 1 February 2017].

¹¹ Galenus: „Nevertheless some people roast and eat it {the seed of Indian hemp} with other sweetmeats. The seeds are quite warming, and consequently when they are taken in quantity over a short period they affect the head, sending up to it a vapor that is both warm and like a drug”.

¹² M. Booth, *Cannabis: A History*, St. Martin's Press, New York, 2003, <https://books.google.hu/books?id=ecITBwAAQBAJ&pg=PA48&lpg=PA48&dq=ibn+wahshiyah+hashish&source=bl&ots=IBNvx>

The population of European countries became acquainted with the use of Cannabis as a by-product of great geographical discoveries and colonizations. Initially, only medical use was typical. The well-known medical/pharmaceutical books of the time, such as the New London Dispensatory (1682), the Complete English Dispensatory (1720), the New English Dispensatory (1764) and the Edinburgh New Dispensatory (1794), all recommend Cannabis for the treatment of a wide range of ailments (depression, cough, jaundice, anti-inflammatory, cancer, arthritic conditions, loss of appetite).

V. Cannabis Use Becomes a Social Problem

The use of cannabis as a pleasure agent, as it was mentioned earlier, first began and spread in Europe among the artists in the 1800s, and then in the early 1900s in the USA.

Stepping out of the art world, marijuana use spread in the following decades to an ever-widening mass of people, culminating in the hippie movement and Vietnam veterans in the 1960s and 1970s, and then the wave of marijuana from the USA swept unstopably through the western societies of Europe and, after the break-up of the Eastern Bloc, throughout Europe¹³.

The first government action against the dangerously rapid spread of Cannabis use was the Marihuana Tax Act of 1937, passed during the Roosevelt administration, which did not categorically ban the medicinal use of cannabis derivatives, but did impose a tax on all related activities¹⁴.

In an effort to reduce the worldwide spread of drug use and the associated drug-related crime, the vast majority of UN member states signed the Single Convention on Narcotic Drugs in New York on 30 March 1961, which classified cannabis and all its derivatives as dangerous and illicit drugs. The Convention has placed cannabis in Schedules I and IV, the latter including substances of very high concern such as heroin.

The 1961 Convention also banned the use of all Cannabis derivatives for therapeutic purposes, despite the fact that it is well known in medical circles that the active ingredient in Cannabis, THC, can be successfully used to treat or alleviate the symptoms of many diseases: e.g. for the relief of severe nausea and vomiting in the chemotherapy of cancer, for the treatment of multiple sclerosis and glaucoma, and for overcoming severe anorexia in AIDS patients.

Following the 1961 drug convention, during the Nixon administration (1969-1974), the United States of America embarked on a very broad and intensive anti-drug strategy under the auspices of total rejection of all substances classified as illegal.

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¹³ E.L. Abel, cited.

¹⁴ In the introduction to the act by David Solomon: „*The popular and therapeutic uses of hemp preparations are not categorically prohibited by the provisions of the Marihuana Tax Act of 1937. The apparent purpose of the Act is to levy a token tax of approximately one dollar on all buyers, sellers, importers, growers, physicians, veterinarians, and any other persons who deal in marijuana commercially, prescribe it professionally, or possess it.*” <http://www.druglibrary.org/schaffer/hemp/taxact/mjtaxact.htm> [accessed on 6 February 2017].

VI. A Paradigm Shift in the Consumption of Cannabis

After nearly fifty years of a total prohibitionist approach (with the exception of the special situation of Dutch coffee shops under strict licensing), we witnessed a slow paradigm shift in cannabis use in the early 2010s.

The first medicines containing active ingredients derived from hemp were approved in the US in the 1980s; in Europe, the products only became official medicines in the late 1990s, and their use only became widespread in the 2010s. To resolve this contradictory situation, the various countries that have signed up to the Convention have adopted various solutions, relying in part on the experience gained during the operation of the coffee shops.

The most commonly used method was a referendum to decide whether to allow the use of cannabis derivatives. As a result, the use of marijuana for medical purposes has been authorized in Oregon and Washington since 1998, and in Colorado since 2000.

The year 2012 was crucial for the recreational marijuana use. In November 2012, three US states (Oregon, Colorado and Washington) held referendums on the use of hemp for recreational purposes. As a result of the referendum, Colorado and Washington became the first states to legalise the consumption, possession and sale of marijuana for recreational use. As with alcohol, the minimum age for legal possession was set at 21 and rules were introduced on driving after consumption. Then, two years later, legalization was also decided in Oregon and Alaska.

In the US, it was a significant step in the process of legalizing the use of Cannabis, when voters in nine Member States were able to vote to free the use of Cannabis at the same time as the November 2016 elections. In California, Massachusetts, Maine, and Nevada, voters voted to legalize recreational use, while in Arkansas, Florida, Montana, and North Dakota, voters voted in favour of medical use. (In California, marijuana use for medical purposes had already been legal since 1996.

In 2019, the WHO, which has so far been very conservative in terms of drug use, has also advocated rethinking the issue of cannabis use and some liberalization.

The Expert Committee on Drug Dependence, the WHO's independent scientific advisory body, based on the results of a multi-year review process, scientific assessment, evaluation of potential health risks and consideration of the expected therapeutic benefits, has proposed in a letter to the UN Secretary-General on 24 January 2019, among other things, the removal of cannabis and cannabis resin from Schedule IV of the 1961 Convention.

Accepting the WHO proposal, the UN Commission on Narcotic Drugs voted to change the classification of cannabis in the international drug convention at its December 2020 meeting. The Commission has de facto acknowledged the medicinal role of cannabis by limiting its inclusion to the much lighter Schedule I.

(At the December CND meeting, Hungary, as the only EU member state, described the WHO proposal as a manifestation of drug liberalization and voted against it.)

From all this, it can be seen that the paradigm shift in the Cannabis issue has begun, and this process will certainly not stop, and positions, arguments and counter-arguments will continue to be strained in the future.

Cannabis liberalisation in most countries typically takes two forms. Most countries that have embarked on liberalization have legalized only medical use (with different conditions for each country), so Argentina, Austria, Australia, Belgium, Brazil, Chile, Colombia, Chile, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany,

Greece, Ireland, Israel, Italy, Luxembourg, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Switzerland, Turkey, United Kingdom and the Netherlands. In addition to medical use, recreational / enjoyment use has also become legal (apart from the US Member States mentioned earlier) in Uruguay since 2013 and in Canada since 2018.

The continuity of the Cannabis liberalization process is indicated by the fact that a number of countries that have authorized medicinal use in recent years, such as Argentina, Australia, Bolivia, Chile, Colombia, Croatia, the Czech Republic, Estonia, Israel, Luxembourg, Malta, Peru, Portugal, Slovenia, Spain, and Switzerland have not yet legalized recreational consumption, but have begun to decriminalize it in different ways and under different conditions.

Based on the above, we are witnessing a paradigm shift in the use for human consumption of various derivatives of the hemp plant, which contains hundreds of different active ingredients, including the highly psychoactive THC, and it seems very likely that the half-century-long strict ban is coming to an end. In the debate between the arguments for and against consumption, which has been in opposition for many years, it is very much the case that public opinion in more and more countries is shifting towards acceptance rather than prohibition.

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