# CANNABIS TOXICOMANIA

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ABSTRACT.—*Cannabis* toxicomania is an inordinate desire for, and use of, hashish. Known by many names, and used widely in various forms throughout the world, *Cannabis* is now used increasingly by young people in most western countries. While many studies of this drug have been reported, many questions about it need further research. Reasons for the use of *Cannabis* are offered, and the rationale of psychotherapy for addicts is given.

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Toxicomania may be literally defined as an exceedingly strong attraction or desire for a toxin or poison. *Cannabis* is hashish or the dried pistillate parts of Indian hemp. It is often in the news by the name of marijuana, grass, pot, and other terms. Statistics on *Cannabis* toxicomania show a sharp upward curve at the present time. This is a phenomenon of social pathology.

*Cannabis* is a plant of the family *Urticaceae,* which grows on all continents, almost everywhere. Certain varieties, such as *Cannabis indica,* are richer in active principle than are others such as *Cannabis sativa. Cannabis* is a very resistant plant, is easily cultivated, and is grown in pots in New York City and on the lawns of the Tiergarten in Berlin as well as on the balconies of St. Louis Island in Paris, usually clandestinely by hashish addicts.

The drug is extracted from female plants. Sap or resin, which contains approximately forty percent of active principle, is absorbed from the digestive tract. Flowers or leaves, which contain approximately ten percent of active principle, are smoked. *Cannabis* is eaten, swallowed or smoked according to different likings in different countries.

In India it is drunk with water, alcohol, or opium tincture. In Iran *Cannabis* is eaten in cakes prepared with butter and rose oil. In the Middle East it is taken in a mixture with opium, nuxvomica, and datura, or as a jam. In Egypt a drink is made of *Cannabis,* sugar and aromatic vegetable substances. In Africa *Cannabis* is usually smoked. It is called "kif" in Morocco, and "takrouri" in Tunisia. In the western world the dry leaves are usually incorporated with small quantities of tobacco and are smoked like a cigarette.

The hallucinogenic effects of *Cannabis* have been known for centuries. In the past, writers have been attracted to *Cannabis,* either by need as was Charles Baudelaire (1821-1893), by experimental purpose as was Teophile Gautier (1811-1872), or to fight against organic suffering as did Guy de Maupassant (1850-1893). Samuel Taylor Coleridge (1772-1834) was also a drug user.

In 1845 a French doctor, Moreau de Tours, tried to use *Cannabis* to treat mental disease. He soon realized that far from having a salutary effect, this plant produced a mental disorder, temporary but intense.

At the beginning the use of *Cannabis* in Europe was limited to the Mediterranean countries, — European Turkey, Greece, Albania, Yugoslavia and Sicily. Then followed ethnic minorities such as the Armenians and Arabs in Paris, then certain social groups like the Bohemians, beatniks, hippies, and later the artists and musicians. Finally the use of the drug has involved all social classes, particularly students and graduates of secondary schools, though rarely teachers.

Today *Cannabis* toxicomania pervades all western countries. Quick and easy international traffic, tourism, and business from Asiatic and African countries, where the plant is cultivated and commercialized, allow wide dispersion. Nevertheless, the fact that dispersion occurs, in spite of international control and repression, implies great demand. And demand is certainly great. For example the annual reports of the United Nations Commission for Drugs inform us that in 1957 only 123,560 kg of *Cannabis* was seized, but in 1967 the amount seized was 1,389,005 kg.

What accounts for the attraction of *Cannabis*? What is the nature of the active principle?

Any substance that modifies sensations, perceptions, conscience, and self-perception is a drug. There are three classes of drugs:

a) Drugs that are habit-forming, create physical and psychical dependence and cause cerebral and other organic lesions, for example morphine, heroin, and alcohol.

b) Drugs that are not habit-forming but which cause physical and intellectual injury, for example L S D and amphetamine.

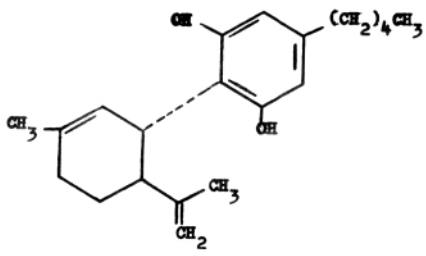
c) Substances which are neither habit-forming nor injurious, like tea.

*Cannabis* as yet cannot be classified in any of these categories. It has not been possible to ascertain the organic, physiological and intellectual alterations which may follow the use of this drug. Research has been insufficient so far, and absolute innocuity of *Cannabis* has not been established. Strong controversy exists on this subject, but the escalade from *Cannabis* to other drugs seems to be admitted.

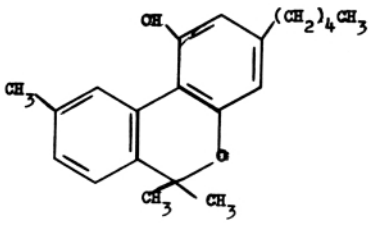
The first studies of this plant were made by scholars who went to Egypt with Napoleon Bonaparte. Silvestre de Sacy and Rouyer brought samples of this plant back to Paris, and these were studied by Lamarck. In the second half of the last century Cahn obtained from *Cannabis* an alkaloid, cannabinol, in a pure state, and over a period of years determined its structure (Cahn, 1930-33). A second alkaloid, cannabidiol, was isolated by Todd and Adams, and its formula elucidated by Mechoulam and Shvo (1963).

It is a peculiarity to be pointed out that these alkaloids do not contain nitrogen. To produce the effects known by drug users cannabinol must be combined to four atoms of hydrogen, becoming tetrahydrocannabinol, which is responsible for the physiological effects of *Cannabis*. (Figure 1)

Professor Jean Delay of Paris classifies psychotropic drugs by their action. According to him *Cannabis* is not a psycholeptic drug that di




Cannabidiol




Cannabinol

FIGURE. 1. Structural formulas for two alkaloids.

minishes mental activity, like barbituries and other hynotics. It is not a psychoanaleptic drug which stimulates mental activity, like amphetamine. It is a psychodyslepic drug, which deviates and distorts mental activity.

The effects of *Cannabis* vary according to the dose absorbed, and they last four to six hours. After the smoking of a marijuana cigarette and a period of throat irritation with cough, a three-phase scheme of effects can be determined.

1) A phase of euphoria, hilarity, amplified imagination, liberation from inhibitions, and ease of social contact.
2) A phase of excitement, aggressiveness, agitation, violence sometimes even with audile and visual hallucinations, depersonalization, and fright.
3) A phase of clumsiness, dullness, and ecstasy similar to the "motionless rest" of Orientals.

The word "assassin" comes from the Arab word "hashishin" meaning hashish smoker, and it relates to a reputedly historic fact. In the year 483 of the Hegira, Caliph Hassan — called the "Old Man from the Mountain" — in order to strengthen his power created the order of hashishins. When he wanted to get rid of any enemy, he administered *Cannabis* to his confident servant, who did not hesitate to put a person to death after being given his mission during intoxication.

In western countries the practice of toxicomania is largely a social matter, in origin and in consequences. However, the motivation or preconditioning of individuals determines participation in this social group activity.

Youngsters of both sexes meet in clandestine clubs, as in ceremonials of religious sects. Their meetings are secret, in poor light, and sometimes with soft music. The atmosphere is friendly, and persons lie on the ground or floor, or on sofas, and they take off their shoes.

Motivations for such meetings are mixed and many. They include curiosity, attraction of the forbidden, apprehension of solitude, search for fellowship, the feeling of being understood by members of the group, and protest against a society which they feel deceives them. According to their own declarations, they try to deepen or widen the field of their own conscience, to reach a higher degree of perception, to surpass themselves, to improve, to see further and more intensively than they do in their every-day monoton-

ous life. *Cannabis,* which has been used in the Far East for centuries, permits those who take it—according to cunning propaganda — to reach oriental wisdom.

A lag between generations has always existed. But in the present world the acceleration of change has greatly increased an awareness of this lag. Youngsters who are apprehensive about their future and yet are anxious to take on responsibilities in society, are reluctant to accept a "sick society". They question morals, religions, politics and the nation, and they cannot make sure of their feelings toward any established group.

Nevertheless it should be noted that not all youngsters fall into toxicomania in spite of discouragement, in spite of the western conscience crisis, and notwithstanding the consumers' society which is made responsible for all our miseries today. Those who take drugs are the ones who retreat quickly when facing difficulties, who "follow the crowd" because they wish not to be different from their peers. This social phenomenon of contagion or imitation is involved in the current epidemic of *Cannabis* toxicomania.

What prophylaxis or prevention is available? Would educational campaigns, with information and moralization, or would coercion of drug users, restrain toxicomania and diminish its consequences? We wish it would, but we do not think it would. Some people recommend persecution and high penalties for all who, for money, are associated with the distribution of *Cannabis.*

As for the consequences of toxicomania certain observations indicate that the use of *Cannabis* leads to the use of drugs that create physiological dependence with organic need, for example heroin. Other observations show psychical dependence, even on *Cannabis.*

Dependence, in turn, leads into medico-legal aspects of the problem. The dependent individual spares no sacrifice to get the herb. Any and all means to acquire money to buy the drug are good. The user becomes a peddler. He employs attack, hold-up, theft, burglary, forgery of checks, and all sorts of frauds, though less frequently than other drug addicts.

Also, under the effect of the drug, *Cannabis* smokers, drinkers and eaters can commit blows and wounds during the phase of excitement, or aggression while in a paranoid state, and various escapades in their fright. The word "assassin" is not idly associated with hashish smoker.

What psychological type of persons become drug addicts? Generally addicts are persons who have not been educated to face life's difficulties. They correspond to adolescents and young adults who were spoiled in childhood, who were brought up in a dull and close atmosphere, or who were not wanted, were abandoned, or grew up in a broken home. They were badly trained to overcome obstacles or to endure misfortunes, poorly trained to avoid or cope with reverses, or to wait patiently when occasion demands. They dismiss their problems by trying to substitute an artificial paradise of drug for the paradise they lost in childhood.

Most drug takers lack self-reliance and confidence in their potentialities.

They have an inferiority complex. They are impatient, are tense with their suppressed aspirations, and are quickly deceived by life.

These anomalies occur also in neurotics and in candidates for suicide. As a matter of fact toxicomaniacs, neurotics, and candidates for suicide show similar psychological profiles to a certain point. This is the reason why the punishments applied to toxicomaniacs are out of date, we think. Often toxicomania and neurosis occur at the same time in an individual and are linked to ideas of suicide. Denial of reality with its difficulties, for the advantage of an imaginary world, is anyhow an attenuated form of suicide.

As well as for the neurotic and the suicidal, the best therapeutic results may be obtained for the toxicomaniac by direct psychotherapeutic action, — in its conscious and unconscious aspects. This action being both therapeutic and pedagogic, it will amplify the patient's sense of identity in his social group. It will restore his self-confidence, and facilitate his comprehension of genuine cultural values. It will prepare him for integration into the society which he had always criticized while not recognizing its obvious and unquestionable values. Of course this psychotherapeutic dialogue is conducted with the tact and the intuition of an experienced psychiatrist.

The torturing inferiority sense of the toxicomaniac originates in early childhood. It puts into operation a compensation by suppressing aspirations and making exaggerated demands of life. Sometimes there occurs an over-estimation of oneself. But the delusions of these dreamers are quickly lost, and they lead to despair, to deception, to dismissal of real life. The drug permits them to escape into an imaginary world. Their clandestine meetings give them an impression of social life. Their mechanism of projection makes society responsible for their miseries.

The therapist endeavors to detect the inferiority sense and its origin by way of the rational and irrational elements of the individual, in everyday events, and through day dreams and night dreams. The therapeutic effort is directed to turning the suppressed aspirations to more reasonable proportions, which may be satisfiable. It puts revolt and protest under the control of self-criticism and into the light of the individual's increasing consciousness. It enlarges his social sense and leads him to social integration.

While research on *Cannabis* continues and we await results in regard to harmful or innocuous effects, what attitude toward it should be adopted? Should it be hostile and prohibiting? Should it be acquiescent and accepting? It seems to the authors that an attitude of tacit tolerance would be most wise.

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