Different perspectives on cannabis

12/20/10

Despite the growth in scientific knowledge of the subject, cannabis, a substance situated on the borders of the licit and the illicit, continues to provoke debate. It raises conflicting arguments which are much more of an ideological nature than a scientific one. Even objective data are used in a polemical fashion: either the use of this psychotropic drug is dramatised or, alternatively, its consumption is made to appear everyday.

Joint, shit, grass, resin, hashish, hemp, marihuana, and weed: there are numerous terms to designate the same substance: cannabis. 'Everything you ever wanted to know about cannabis but were too afraid to ask,' could be the subtitle of this collective work (1), which presents a dispassionate inventory of the factors around which a consensus has been formed, from an epidemiological perspective as much as from a neurobiological, clinical, psychological and somatic point of view. The richness of the work lies in its interdisciplinarity: it offers different interlinked perspectives on
the origins of cannabis use, its consumption and its various effects on the body. It offers elements of a reply to numerous questions in a language accessible to all kinds of readership, from ordinary citizens to professionals, without ever slipping into banal over-simplifications.

Structured in 10 chapters, the collective work offered by Vincent Seutin, Jacqueline Scuvée-Moreau and Etienne Quertemont and the University of Liège’s Drugs Unit allows readers not only to know more about cannabis but also and above all to understand where we are in terms of its effects on human behaviour. Is cannabis as harmful as other psychotropic drugs? How does it act on the body? What is the exact current situation regarding legislation on its use? What care and support provisions are offered to its users? In other words, a whole series of questions to which the researchers have tried to reply, in intersecting their knowledge and experience.

A collective work in which different areas of knowledge intersect

In the 1980s Marc Richelle, at the time the Dean of the University of Liège’s Faculty of Psychology and Education, and a convinced advocate of multidisciplinarity, invited his colleagues from the whole range of disciplines to meet informally to together think through ‘the development of teaching and research programmes in the field of the uses and abuses of licit and illicit drugs.’ A think tank arose from it which rapidly opened its doors to fieldworkers, doctors, educators, healthcare workers and psychology support personnel, etc. In the Spring of 1987 there was published a fascicle of the journal ‘Nouvelles de la Science et des Technologie’ called Drogue - Du neurone au code pénal (Drugs: from the neurone to the criminal code), to which a dozen or so people had contributed. Certain of them are to be discovered in the current work which is inscribed in a precise extension of the work they had done. Regards croisés sur le cannabis brings together disciplines as diverse as psychiatry, with Marc Anseau, neuropsychiatry with Paul Verbanck, pharmacy with Corinne Charlier, Benjamin De Backer and Jacqueline Scuvée-Moreau, medicine with Pierre Firket, Christiane Gosset, Emmanuel Pinto and Vincent Seutin, the chemical sciences and toxicology with avec Laetitia Theunis, but also the human sciences, sociology with Claude Macquet, criminology with André Lemaître, and psychology with Valérie Antonialli, Sylvie Blairy, Michel Born, Ezio Tirelli and Etienne Quertemont, the public health sciences with Isabelle Heyden and Isabelle Demaret. They come from the Free University of Brussels, the University of Liège or from the hospital environment, the Liège CHU, and the CHU Brugmann. Jean-Baptiste Andries, the Advocate-General at the Liège Court of Appeal, has taken responsibility for the work’s legal aspects. In our times, when cannabis is the most consumed illicit product in numerous European countries and of which Belgium is one of the biggest consumers, the work obviously responds to a need for information.


Ten chapters to cover every aspect of the dossier

Cannabis has been used since the dawn of time for its psychotropic aspects, in other words its capacity for causing changes in perception, feelings, moods and consciousness. The book thus begins with a description of the plant, an historical overview of its consumption and the methods used to grow and use it. Next the work moves on to analyse the action mechanisms and the interaction between the main active substance, THC, and particular receptors situated in various regions of the brain. There follows a description
of the potential addictive properties in replying to the question of whether or not it acts as a spur to the consumption of harder drugs such as heroin or cocaine. Therapeutic properties are also considered, as well as its effects on the cardiovascular and respiratory system. An entire chapter is devoted to the effects of cannabis on a consumer's psychic health, without evading the delicate question of psychotic risks linked to the consumption of cannabis during adolescence. The social problems brought about by its consumption are analysed both in terms of the consumers and the people close to them and their entourage. When consumption tips over into addiction more and more consumers turn to the help of the social services. The book thus takes stock of the way support is provided and raises the experience of the Cannabis Clinic in Brussels. It also offers a view of the most frequent types of use and what kind of public is involved for each one of them, a picture which leads to a questioning of future prevention and risk reduction actions. The work ends with a summary of the legal prescriptions which regulate the use, possession and selling of cannabis, equally sketching out the evolution of legislation in this field since 1818.

Cannabis, you said?

Cannabis is the scientific name given to hemp, a flowering plant of the cannabaceae family, whose male and female flowers are carried by the same stem. There exist three varieties of which the first is used for its textile properties (hemp), a second, also called Indian hemp, cultivated in Latin America, South Asia and Africa, which secretes a resin rich in psychotropic substances, trans-tetra-hydrocannabinol (THC), and a third, poor in THC, used in cross breeding.
It was in 1753 that Linnaeus (a Swedish botanist of the 18th century, and the father of taxonomy) gave to hemp its scientific name of ‘cannabis’ (from canna, reed, and bis, double, the reed with two genders). The varied etymology of the noun cannabis demonstrates its antiquity (kanneb in Hebrew, quanabu in Assyrian and kanaba in Persian) and the fact that its history merges into that of humanity.

In 1845, the doctor Joseph Moreau de Tours, in his work 'Of Hashish and Mental Alienation,' recommended its use as a 'powerful and unique means of exploring mental pathologies and as a treatment for every type of mental disorder.'

It was during this same era that, under the impetus of the poet Théophile Gauthier, that 'Turkish salons' or 'hashish parlours' opened in Europe and the United States. At the end of the 19th century no less than 500 of these smoking salons could be counted in New York.

In order that doctors and pharmacists could retain their therapeutic monopoly, the United States rendered hashish use illegal through the 'Marihuana Tax Act,' whose effects would spread across the planet, apart from the poorest regions of Africa and Asia, where it remains a polyvalent remedy.

According to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), cannabis remains the most commonly used illicit drug in Europe (2007 figures).

**Growing cannabis**

The plant grows in the wild in numerous regions or in very varied climates. Depending on if it is grown in the open air or in greenhouses, its THC levels can thus vary considerably.
pesticides, insecticides and chemical fungicides is carried out depending on if the growing is carried out in home-grown or 'industrial' quantities.

The case of Morocco is particularly interesting, as around 100,000ha are reserved for its growth in the Riff, which amounts to an annual production of 1000 to 1500 tons of hashish (cannabis resin) exported to numerous countries (80% of the hashish consumed in France comes from Morocco). This crop provides some 200,000 families with a living. Despite international pressure and the Moroccan government's efforts, numerous hectares of forest are destroyed to give way to this very profitable crop.

The forms of cannabis use

Recreational use of cannabis takes three forms: marijuana, hashish or hashish oil. Marijuana has low levels of THC and is the commonest form of cannabis derivative. The floral extremities are dried, shaded from light and humidity, to be subsequently consumed. The use of cross-breeding allows THC levels to be increased. It is also called grass, Mary Jane or weed.

'Hashish' designates cannabis resin and comes in the form of blocks or cakes. It has high THC levels (between 5 and 40%). To obtain 1kg of hashish, around 45 to 70kg of grass is needed. Sold by weight, it is often mixed with shoe polish, henna or paraffin. In street language it is termed shit, hash, a joint…

Hashish oil: with its very high levels of THC (over 50%) this brown/green or blackish viscous liquid is obtained through soaking the resinous parts in alcohol and then exposing it to the sun. It is consumed through inhalation or ingestion.
Distribution in the body and its effects

THC is a lipophilic molecule which easily and rapidly spreads within the body, above all in the strongly vascularised tissues rich in lipids, such as the brain, the lungs or the liver. The very good tissue fixation of THC allows it to be kept for a long time in the body (up to four weeks). In a pregnant woman, THC easily passes the placenta barrier and is concentrated in mother's milk.

It has been demonstrated that cannabis plays a role in nerve transmission and impacts on cognitive functions (learning and memory), the perception of the environment, motor coordination and social behaviour.

Several minutes after having been inhaled THC is rapidly distributed by the blood to the whole of the body. Its psychotropic effects on the other hand can vary from one individual to another - in general 30 minutes after effective inhalation; its effects disappear around 3 to 4 hours after inhalation.

If most consumers talk of a feeling of relaxation, for certain individuals its consumption can provoke vertigo, depression, paranoia, hallucinations and drowsiness. At the present time it is accepted that cannabis causes a primary dependence characterised by compulsive type consumption. It is also known that a tolerance effect occurs: the same dose provokes less and less perceptible effects, and that takes effect from the second administration. Research shows that cannabis is quite close to other drugs as regards its addictive qualities, even if they are of a lesser severity and only affect regular consumers. The book also raises the very controversial question of an escalation from cannabis to hard drugs. The relative risk of starting to take hard drugs is up to 85 times higher for cannabis consumers than for non-consumers, which allows a statistical relationship between the consumption of cannabis and hard drugs to be determined. This passing from one to the other could be explained by the existence of a causality link, or 'an entrance door.'
Nevertheless, in the mind of the general public, cannabis often remains a less harmful substance. 'There are several reasons for that,' explains Jacqueline Scuvée-Moreau, Head of Works in Pharmacology. 'First of all there is an objective reason. In comparison with other illegal drugs (thus grouped together in people's minds) such as cocaine and heroin, cannabis effectively has a more reduced dangerousness. There is also a large dose of public disinformation as to the real dangerousness of the substance and consumers are not necessarily aware of the fact that the levels of cannabinoids in the products they are offered to consume are becoming higher and higher. A lot of people continue to think that cannabis does not produce dependency whilst it can exist for regular users, in psychic as well as physical terms, with the appearance of withdrawal symptoms when consumption is stopped. Finally, the successive and sometimes contradictory Belgian judicial recommendations, whilst being of a pragmatic nature (cannabis use has not really been decriminalised but at the same time it is not followed up by the courts) have not contributed to a clear message concerning cannabis. At the present time a large majority of the public think that cannabis use has been decriminalised, and thus, in their minds, if it has been decriminalised it is because it is not harmful.'

Numerous research paths have been trying to bring to light the therapeutic potential of cannabis, particularly in the treatment of painful syndromes, appetite regulation and in providing support for addictions. A certain
number of unwanted effects nevertheless limit the substance’s therapeutic effects. It is reputed to be at the origin of numerous effects on the central nervous system, the cardiovascular, respiratory and digestive system. The risks of small cell lung cancer have been demonstrated. As for the psychological effects they are subject to bitter debates but the existence of a robust statistical relationship between cannabis consumption and the later appearance of psychotic disorders has been verified. It also seems to encourage mood disorders, such as depression and bipolar disorder.

From prevention to suppression

Cannabis is the most consumed psychotropic product on the planet. Since the 1990s the number of users throughout the world has doubled. In Belgium its use is pretty widespread in the 15-24 and 25-34 age groups. Its consumption involves around 13% of the population, against a European average of 7%. Having assumed commonplace status amongst the youth, its consumption is considered 'cultural' and is compared to alcohol consumption. In recent years, means of therapeutic back-up and support units for drug withdrawal have sprung up. Pharmacological and therapeutic approaches are clearly rising with a view to enabling problem consumers to successfully withdraw from the drug. They are particularly targeted at fragile population groups, such as young teenagers, people with mental health problems and people having problems getting onto the job market.

The impact of cannabis consumption on society nevertheless remains low. Acts of delinquency for example involve essentially users of hard drugs such as heroin and cocaine. If campaigns are generally based on the consequences, the public authorities and prevention units are today trying to better make out the causes of consumption. Today's prevention strategies promote, as they do for every drug 'user,' self-monitoring and self-government.
Criminal justice and cannabis

In Belgium cannabis entered the list of illegal substances in 1930. As for suppression, it has to be said that the legal frameworks are vague. Keeping cannabis for personal use, even without disturbing public order, is punishable, but in practice following up with legal steps is in principle not carried out. The criminal treatment of cannabis consumers is a matter for political issues, as consumers are seen as both the victim and the instigator of an offence. Attempts to legislate thus run up against this paradox. The reform of 2003 which intended to concretise the criminal section of the law added extra confusion. It is thus indeed down the path of prevention that it will be necessary to go in order to have all the efforts being made converge in one place. Prevention, yes, but also research into drugs in general, and here as well much remains to be done. As Etienne Quertemont says: *In Belgium there are no centralised statistics which allow us to know the number of researchers and the overall budgets allocated to research on psychotropic and abusive drugs. Generally speaking it needs to be noted that that research on addictive drugs is under financed in Belgium and more widely in Europe, above all in the light of the astronomical costs of drug abuse in economic and public health terms. In comparative terms there exists in the USA a national institute entirely devoted to research into drugs (the NIDA - National Institute on Drug Abuse) and another into research into alcoholism (the NIAAA - National Institute on Alcohol Abuse and Alcoholism). These two institutions are both research centres which employ hundreds of researchers as well as in
addition distributing to researchers at American universities research budgets which much exceed what can be obtained, and in a very laborious manner, in Europe.'