

Letter to the Editor

Letter: Rewarding effects of drug abuse?

Franjo Grotenhermen

nova-Institut, Chemiepark Knappsack, Industriestraße, D-50354 Hürth, Germany

Author's address: Franjo Grotenhermen, franjo-grotenhermen@nova-institut.de

When Emmanuel Onaivi's article [1] speaks about the "rewarding effects of drug abuse" he is certainly not suggesting that the abuse generates rewards, but the actual use of the drug may. What could be rewarding about the potential negative effects of drug consumption, such as abuse, withdrawal and social problems? My impression is that many authors who research this subject tend to consider or denominate all consumption of illegal drugs as "drug abuse", which says more about their attitude than about their object of investigation. 15 years ago, an editorial in the Journal of the American Medical Association discussed this issue and stated that differentiating between drug use and drug abuse today appears "unpatriotic" (p. 2676) [2].

In my opinion, to understand and be able to treat the potential negative consequences of drug use one must understand the motives of drug users and acknowledge possible positive rewarding effects of drugs, including relaxation, recreation and the subjective experience of wellness. This requires that scientists come to their research with an objective and sober attitude, free of prejudices lest they fall into the trap of the politically advantageous general demonization of illegal drugs. Drug addiction isn't a simple result of neurobiological mechanisms but crucially involves socio-psychological aspects [3]. A pharmacological and mechanistic approach, which would not need a psychological understanding, is always just one part of a holistic therapeutic concept. Results from animal experiments cannot

easily be translated to the human situation, even if the neurobiological mechanisms can.

Another example may illustrate how the topic of cannabis has created associations of certain terms with emotions and projections. To the regulatory agencies in the U.S. in the 1980s it was important that the active ingredient dronabinol ((-)-trans-delta-9-THC) in the drug Marinol was produced synthetically and not extracted from the cannabis plant. That way, the thinking went, Marinol would be acceptable to those persons who would consider consumption of cannabis problematic, even when used for a medicinal purpose. Many, including quite a few scientists, think of dronabinol as "synthetic THC" and not a natural cannabinoid that one can also synthesize. For those who have a positive attitude towards cannabis and who, for many years, considered dronabinol inferior because it was synthetic may find it difficult to accept that cannabis also contains dronabinol.

Thus, any attempt of an unbiased review of the topic of cannabis and cannabinoids may also require some linguistic "clean-up work".

References

1. Onaivi ES. An endocannabinoid hypothesis of drug reward. *Cannabinoids* 2007;2(3):22-26.
2. Wish ED. Preemployment drug screening. *JAMA* 1990;264(20):2676-2677.
3. Koob GF, Le Moal M. Drug abuse: hedonic homeostatic dysregulation. *Science*. 1997 Oct 3;278(5335):52-8.