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Is "Medical Marijuana" An Idea Whose Time Has Come—And Gone?

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The discussion of "medical marijuana" tends to conflate two questions:

- Does cannabis have therapeutic utility?
- Is "marijuana" – the flowers and leaves of the cannabis plant – a medicine?

The answer to the question of medical utility is "Yes." There turn out to be two sets—at least—of receptors to which cannabinoid molecules bind, and which are not affected by any currently approved non-cannabinoid pharmaceutical drugs.[1] It is almost inconceivable that modulating one or both of these receptor systems is never therapeutic. Synthetic delta-9 tetrahydrocannabinol (THC), under the trade-name Marinol,[2] is already an approved drug in the U.S. as well as some other jurisdictions. Sativex, a plant extract containing multiple cannabinoids (notably THC and cannabidiol, or CBD) is an approved drug in other countries.[3] It would be

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[1] R. G. Pertwee, *The diverse CB_1 and CB_2 receptor pharmacology of three plant cannabinoids*, 153 Brit. J. of Pharmacol. 199, *available at* http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219532/.

[2] *Marinol (Dronabinol) Capsules,* FDA, (2004), *available at* http://perma.cc/W88B-77FP.

[3] Examples of countries which have approved Sativex include the UK (2010), Spain (2011), Germany (2011) and Italy. http://www.gwpharm.com/Sativex.aspx.

absurd to grant medical utility to the chemicals but deny it to the plant from which the chemicals are derived, though that absurdity has not deterred various officials from adopting it. "This is not medicine," said Barry McCaffrey, the director of the Office of Nation Drug Control Policy under President Bill Clinton in response to claims that cannabis may have medicinal value: "this is a Cheech and Chong show."[4]

On the other hand, if a "medicine" is defined as a material that a physician can prescribe to a patient with reasonable confidence as to its composition and likely effects, then "marijuana" does not name a "medicine." Different strains of the plant, and different parts of a given plant, vary widely in their composition, and even if we restrict our attention to the two best-known active molecules in the plant—THC and CBD—their actions are distinct and, to some extent, opposed to each other.[5]

Marijuana is smoked, vaporized, and swallowed (in foods or liquids), and the bioavailability of its active molecules varies enormously across and within modes of administration.[6] A physician would never tell a patient, "Take some sort of antibiotic for that infection." Instead, she would write a prescription for, e.g., "100 mg. of amoxicillin by mouth four times a day for seven days." In the absence of standardized products or means of administration, the therapeutic utility of cannabis does not, by itself, suffice to make it a medicine in the sense in which levothyroxine or aspirin are medicines.

However, the preferences of contemporary Western medical practice for single molecular entities over whole plant material and for swallowing over inhalation are facts of medical anthropology and regulatory practice, not biology. THC is known to have risks, some of which are buffered by other chemicals in whole cannabis.[7] Indeed, the increasing THC content and decreasing CBD content of the widely consumed strains of cannabis are often cited as reasons to be more concerned about cannabis use today than might have been justified by the experience of two or three decades ago.[8] But that simply emphasizes the fundamental silliness of a legal regime that categorizes a substance as a medicine only if it is 100% pure

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[4] *This is not Medicine, this is a Cheech and Chong Show…,* CHICAGO TRIBUNE NEWS: QUOTABLES (Jan. 05, 1997) http://perma.cc/AU2F-5TET.

[5] R. G. Pertwee, *The diverse CB_1 and CB_2 receptor pharmacology of three plant cannabinoids: Δ^9-tetrahydrocannabinol, cannabidiol and Δ^9-tetrahydrocannabivarin*, BRIT. J. OF PHARM. (2008) 153 at 199, 206, *available at* http://perma.cc/4DPG-P8S6 (last visited Feb. 27, 2014). CBD acts as a THC antagonist by binding to the CB1 receptor site. THC is anxiogenic; CBD is anxiolytic.

[6] *See generally Accepted Medical Use: Route of Administration*, DRUGSCIENCE.ORG, http://www.drugscience.org/amu/amu_administration.html (last visited Mar. 1, 2014).

[7] Herbert D. Kleber & Robert L. Dupont, *Physicians and medical marijuana,* 169 AM. J. PSYCHIATRY 564, 564–68 (2012).

[8] *Id.* at 565.

THC.

Whole cannabis, or extracts of whole cannabis, including multiple active molecules might be developed into medicines (as has already happened with Sativex) by standardizing material, dosage, and route of administration and going through the new-drug-approval process.[9] But that process is expensive and time-consuming, even when the prejudices and institutional interests generated by eighty years of prohibition are not in play, and there is no strong reason to think that the cannabinoid preparations that make it through that process first will be more medically valuable than those that make it through more slowly, or not at all.

That constitutes the case for "medical marijuana": patients are suffering now; the regulatory process is long, expensive, and uncertain; there is some evidence of utility even in the absence of pharmaceutical-level quality controls; the side-effect profile is acceptable, with zero risk of a fatal unintentional overdose.[10] Allowing for medical use of an otherwise-banned drug that has not passed through the usual drug-approval process is no doubt a regulatory kludge, but it is arguably the "least-bad" of the politically and operationally available options.

If that approach is adopted, processes need to be established both for determining which patients are eligible to receive the drug (in the face of strong demand from those without medical need who want the drug for their own non-medical use or for profitable resale) and for producing and distributing cannabis flowers and leaves, cannabis extracts, or cannabis-infused edible or potable products to be used medically.[11] Tight controls risk denying access to people with genuine need; loose controls, as in California, can convert "medical marijuana" into a back-door approach to virtual legalization of the drug for any use.[12] To some advocates, that outcome is an unwanted side effect; to others, it is the whole point of the exercise from the beginning. In the words of Dennis Peron, "*All* marijuana use is medical."[13]

"Medical marijuana" was also, from the viewpoint of advocates of complete cannabis legalization, a means of conducting the debate on the

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[9] ALISON MACK & JANET E. JOY, *Front Matter, in* MARIJUANA AS MEDICINE?: THE SCIENCE BEYOND THE CONTROVERSY (2001).

[10] C. Heather Atherton, *Pharmacology and effects of cannabis: a brief review,* THE BRIT. J. OF PSYCHIATRY 2001, 178: 101–106, *available at* http://perma.cc/N65U-DKSF (last visited Feb. 27, 2014).

[11] Stephen C. Collett, Tom Gariffo & Marisa Hernandez-Morgan, *Evaluation of the Medical Marijuana Program in Washington, D.C.*, UCLA LUSKIN SCHOOL OF PUBLIC AFFAIRS, 4 (May 1, 2013), http://perma.cc/6WUN-KS6M (last visited Feb. 27, 2014).

[12] *Id.*

[13] LEE A. MARTIN, SMOKE SIGNALS: A SOCIAL HISTORY OF MARIJUANA - MEDICAL, RECREATIONAL AND SCIENTIFIC 444 (2013); Christopher S. Wren, *Notes on Medical Marijuana Are Stirring Debate,* N. Y. TIMES, Nov. 17, 1996.

ground most favorable to their cause.

But now, with public support for full legalization now well past the 50% mark and still rising,[14] the argument about availability for medical use would appear to be obsolescent, if not already obsolete. A state now considering making cannabis available for medical use needs to ask how long it will be before that question is subsumed by the larger question of full legalization. Once cannabis is available without a medical recommendation, the need for maintaining a system for providing those recommendations, or a separate "medical" supply chain, is hard to see, especially if regulations on commercial production and sale impose testing and labeling requirements more stringent than medical outlets currently abide by.

A group of officials in Washington State, at the behest of the legislature, submitted a set of proposals for integrating the state's largely unregulated and untaxed medical market with the commercial market, which has authorized by the voters in 2012 and expected to be in operation by early summer of 2014.[15] That group recommended the elimination of the "collective garden" (i.e., retail outlet) system, with patients accessing medical marijuana through the commercial stores.[16] Under that proposal, patients would have paid the same substantial excise taxes as non-medical users, being spared only the sales tax.[17] How many people would bother to obtain medical authorizations for that relatively minor benefit remains to be seen, especially since the officials also proposed tightening the recommendation process. (As it happened, the legislature adjourned without passing the bill embodying those recommendations.)

In sum, "medical marijuana"—making cannabis available by medical recommendation but without requiring sellers to meet pharmaceutical standards—would seem to be an idea whose time has passed it by. If patients do not need medical authorization to acquire cannabis, why bother with what was always a kludge? It is to be hoped that pharmaceutical manufacturers will continue to pursue the development of cannabinoid remedies, even though, regrettably, the financial incentive for the expensive clinical research requisite to pharmaceutical approval would largely disappear with legalization for non-medical use. Alternatively, one must hope that the commercial side of the market develops products with known and reproducible composition, dosage, and means of administration

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[14] Art Swift, *For First Time, Americans Favor Legalizing Marijuana*, GALLUP (October 22, 2013), http://perma.cc/632C-XHRL.

[15] Washington State Liquor Control Board, DRAFT Recommendations of the Medical Marijuana Work Group Budget Proviso Language: 3ESSB 5034 Sec. 141(2), https://lcb.app.box.com/draft-recommendations (Oct. 21 2013).

[16] *Id.*

[17] *Id.*

that could allow health-care providers to make prescription-like recommendations to patients they think might benefit from cannabinoids. But the political and administrative attention that would be required to create, set up, and run a medical marijuana system might pay larger dividends in health and safety if invested instead in the difficult task of creating, setting up, and running a well-controlled system of full legalization.