Book Review

Drawing upon Science for Resolving Controversies Surrounding Marijuana:


A Review by Doug Wagner, Ph.D.

Understanding human activity remains interpretive and difficult; and compounding the problem is the propensity to alter states of consciousness through the ingestion of psychoactive substances. Because humans live in groups or a society, comprehension is further complicated when it is asked, “why are some psychoactive substances accepted in some cultures but not in others?” In a time with an enormous amount of information available, a minimum goal for the social scientist is to know how scholars treat their subject material. In the book, *Understanding Marijuana: a new look at the scientific evidence*, Professor Mitch Earleywine provides social scientists an excellent up-to-date analysis of the research related to marijuana consumption. It serves as an excellent introduction to determine where future research needs to proceed.

Professor Mitch Earleywine has provided scholars, health educators, drug/alcohol treatment professionals, policy makers and lay people a single, concise compendium of the many scientific studies comprising the conflicts surrounding the use and misuses of the drug, marijuana. Over the past three decades, there has been much study related to marijuana, thus, necessitating his work. The subtitle, “a new look at the scientific evidence,” however, might be viewed as a guide and warning. As with any mood-altering substance, the marijuana user needs to know the short term and long term effects, and learning what science can tell us about those effects is essential. But this book will frustrate those who want confirmation whether the drug should be allowed or not allowed in society. Scientists can bring us knowledge and a degree of certainty. Dr Earleywine’s cautious judgment of tolerance may be as much as one can expect with reference to marijuana.

We live at a time when agreement of scientific research is not unanimous. New studies almost routinely appear in the press challenging former claims; therefore, certain caveats need to be considered. Yet, viewing scientific truths as culturally relative seems unsatisfactory when considering the universality of the human species. Regardless of the controversial subject or discovery, scientists inherently work from values and hypotheses when pursuing scientific studies. Those premises, means...
for verification and replication, serve as the outline for this monograph. Too often studies of psychoactive substances gain the public’s attention because of particular findings rather than their veracity or the cautionary reminders that the results merit further review. Professor Earleywine recognizes the importance of careful scrutiny of scientific research to achieve a balanced assessment. He provides an objective review of the varied studies and conclusions. Throughout the book he offers reasonable judgments when sufficient evidence indicated potential harm or benefit. As a guide to looking at the evidence and organizing the subject matter, it should satisfy proponents and opponents.

Following a brief but interesting history of Cannabis, Professor Earleywine begins by clarifying the many studies through an analysis of the definitions surrounding marijuana use. The chapter title, “Cannabis Use and Misuse” took this reader back to the late sixties before such terms as ‘addiction,’ ‘abuse’ and ‘dependence’ were applied to marijuana consumption. Noting that those three terms inherently incorporate negative consequences, he concluded that such designations that become diagnoses “may say more about the culture and values of a given clinician than the actual negative consequences that cannabis creates.” Those diagnoses could be seen in three detrimental ways: inherently political and thus unscientific, stigmatizing to the user, and not ringing true to the users and thus minimizing some of the harmful consequences that may occur because of marijuana use. Interestingly, Professor Earleywine avoids the term political. Although he briefly capsules the legislation of marijuana, he has broadly organized the book into three broad categories—the interaction between biology, psychology and society. The absence of a political category may reduce the controversy of the scientific studies but it may also prevent treatment professionals from recognizing that their positions have less to do with the actuality of marijuana use than with the preservation of existing policies.

On a similar note the influence of politics does not get its due when it comes to the scientific finding on harmful health effects. For instance, getting the opportunity to study the effects requires overcoming many governmental obstacles. Of the studies, the general findings are clearly described and summarized for quick purview. Whereas research has often been focused on the behavioral effects, Earleywine includes one entire chapter on the subjective effects, even though largely a consequence of self-reporting. But again controlled studies have not been allowed. Conclusions from the general findings are as follows: Overdose appears impossible, making marijuana not a drug comparable to alcohol, heroin or cocaine. Although not a cause of mental disorders marijuana use may contribute to psychotic and anti-social personality disorders, which may be
affected through endogenous cannabinoids, i.e. anandamide. Although not mentioned, those disorders may be linked to the user’s environment or the illegal status of the drug. Research has not shown that marijuana use changes brain structures, as for example is known with excessive alcohol consumption. Excessive use may cause temporary changes in hormones and sperm, but normal levels return shortly after discontinuation. Perhaps the most serious finding was reference to a longitudinal study of children from pregnancy to the age of ten indicating that children born from women who were smoking marijuana during pregnancy did have a greater tendency to attention deficit disorders and related [behavioral] problems. Yet, the author promptly added that the researchers cautioned that they had not taken into account the mothers’ behavioral problems. Following this chapter on health effects Earleywine concludes that marijuana use “seems to have fewer negative health effects than legal drugs, like alcohol, caffeine, or tobacco, and kills far fewer people.” The concluding remark ought to prompt the reader to ask, “Well then, why with so few adverse effects has the drug been so strongly opposed?” Thus, in spite of such scientific findings, the presence of the general public’s and the policymakers’ resistance to marijuana calls for comparable research by political scientists and social psychologists.

Supporters of preserving the illegal status of marijuana often claim that proponents for medical marijuana are actually wolves in sheep’s clothing, with their real intention to gain social acceptance for recreational use. They view their effort as the beginning of a “slippery slope.” Earleywine separates medical and recreational marijuana use primarily by the intention of the user. He recognizes medical use of the drug for various treatments and sees further research as a means to expand scientific understanding of our endogenous cannabinoid system. More challenging for the conscience of the health educator will be the description on the subjective effects. Other than Allen Ginsberg’s suggestion of trying the drug yourself, the teacher must rely upon self-reports or laboratory work. Here Earleywine categorizes the composition of a marijuana-induced consciousness. He separates perceptions, emotions, thoughts, sexuality, spirituality, and sleep as potentially desirable states from the undesirable effects, i.e. impairment of concentration, feelings of depersonalization, reddening of the eyes, dry mouth and loss of moisture in related mucous membranes. Drawing from earlier scholars he also referred to the user’s expectations and environment for determining the drug’s effects. This arrangement facilitates an understanding of the user’s sensations, emotions and thoughts when intoxicated. Such information also helps the reader to know what to expect or look for when trying to understand someone in an intoxicated state. Acknowledging the complexity of human motivation, the author speculated
that the drug's popularity may be the result of the drug's "disparate but potentially pleasant effects." This recognition may test the educator's moral base, notwithstanding the policies of zero tolerance. It is to the author's credit that the topic of pleasure if treated as accurately as the scientific studies.

Other than the slighting of political issues and their impact on the types of scientific studies, Dr. Earleywine has contributed a reliable guide on this current scientific status of marijuana. In the epilogue he seeks to redress the omission. Earlier he had described the utilitarian ethical positions of the policy makers. Here is his final thoughts he considers possible explanations for a people's attitude about a drug. He writes, "It is perfectly human to assume that consciousness should be a certain way." I would counter with the obverse. Is it not as human to tolerate another's choice in affecting one's state of mind? Something else must be prompting the need to control others' states of consciousness. That need for control seems even less understandable when the possible harmful drug effects rarely extend beyond the individual's choice. Looking on the positive side, he saw people moving towards acceptance of diversity. When reflecting on national leaders and our national drug control policy, I question such optimism. As a concluding note: this book serves as a useful place on where we are today on a scientific level of marijuana use. Although not an aim of the author's, the book also makes clear the absence of comparable studies examining the harm caused by prohibition policies and an explanation of the rationale for their continuation.