**The George Washington University: University Seminar on Reflexive Systems**

**Viewing Marijuana Use and Policy from a Public Health Perspective**

**Paula D. Gordon, Ph.D.**

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**This presentation is going to begin in a somewhat unorthodox way.**

**~ I am going to begin by showing a brief video of a research experiment that shows the effects that social pressure can have on behavior.**

**~ That will be following by a mini-lecture of sorts in which I will be giving an overview of a number of perspectives on marijuana use, including a public health perspective.**

**~ The mini-lecture will be interspersed with some video segments of the Dalai Lama speaking with Dr. Nora Volkow, Director of the National Institute on Drug Abuse, about substance abuse and addictive behaviors of all sorts.**

**~ Also included along the way will be a PSA showing behavioral changes in a child as he morphs into an inarticulate stoned teenager (**<http://www.youtube.com/watch?v=-7J2ftnMbgk&feature=c4-overview&list=UUQr_wgyFUxVhvITONsOXjew> **)**

**~ This will be followed by a panel of respondents, some of whom gave testimony at a hearing held Thursday before Joint Committees of the D.C. Council. I think you will find their perspectives most interesting and illuminating.**

**Then the program will be opened to comments and questions from the audience. Index cards are at every seat if you would like to submit a written question or comment. Comments and questions will also be invited from the floor in the last twenty to thirty minutes of this two hour program.**

**We begin now with a video excerpt of a famous experiment of Solomon Asch, the social psychologist (**[**http://www.youtube.com/watch?v=qzwWedcmMXo**](http://www.youtube.com/watch?v=qzwWedcmMXo) **).**

**While I had been telling my students about such matters as groupthink, social pressure, denial, and the Abilene Paradox over the years, I just recently happened upon this video. I found it quite thought provoking and I hope you did too. I also found it quite relevant to what I am about to share with you.**

**Viewing Marijuana Use and Policy from a Public Health Perspective**

While Amsterdam and Switzerland have had second thoughts about the permissiveness of drug laws, the states of Colorado and Washington have legalized the recreational use of marijuana and the Federal government has allowed this to occur even though legalization of marijuana is in violation of current Federal law and in effect constitutes an abrogation of the International treaties to which the U.S. is a signatory.  I have addressed the matter of the illegality of legalizing marijuana elsewhere. That published article is now accessible on [GordonDrugAbusePrevention.com](http://GordonDrugAbusePrevention.com) . The matter of the illegality of legalizing marijuana is not however the focus of this seminar presentation. The focus instead is on questions that should have been raised prior to establishing policies that would not only legalize the use of a psychoactive substance, but would in effect, in the current legal and cultural context, sanction and promote its use in the eyes of the public, including impressionable individuals of all ages, especially under the age of 25. A key question to be addressed here is what constitutes sensible public policy when it comes to the use of marijuana. Should its use be sanctioned?

When approaching a complex issue area such as marijuana use, one ideally begins with an effort to understand what is known about the issue. What, for instance, are the effects of marijuana use? What has the research shown? What has the research found that has been accumulating for decades, concerning the effects of marijuana?

Reports indicate that marijuana use has significant consequences for mental, psychological, and physical health, and social and public health in general. So why would any public official or legislator want to legalize it or to put policies in place that would encourage or sanction its use, in the eyes of persons of any age? Could it possibly be the case that the popular view of the effects of marijuana that are held by many in the public and many in policymaking roles are not informed by an understanding or even a knowledge of the abundant research findings concerning the harmful and untoward effects of this psychoactive substance?

Do those promoting such policies know about widely available research on the effects of marijuana? Having given testimony and witnessed testimony given before some members of D.C. Council on Thursday, it was evident that neither of the Council Members present and only around 10 or fewer of the 50 or more people testifying, had any in depth knowledge of the research findings concerning the effects of marijuana. Many of those in roles of public responsibility who have promoted policies favoring the use of marijuana seem totally unaware of the implications of major research findings. These include the findings that marijuana use profoundly affects brain functioning and IQ levels, notably of those under the age of 25 whose brains are still developing. These findings include the results of MRI studies released April 16 of this year in the **Journal of Neuroscience** that show that marijuana use in casual users has resulted in brain anomalies.  Other recent findings of longitudinal studies published in the September 2014 issue of **Lancet Psychiatry** indicate extremely significant harmful effects with regard to those who have begun their use of marijuana as youth and continued to use through adulthood. These effects include higher school dropout rates, higher rates of unemployment, and higher incidence of suicide attempts. Those involved in promoting policies that are leading and have led to the increasing use of marijuana do not seem to be aware that the Tetrahydrocannabinol (THC) [content of the marijuana today can be 10 times more potent](http://www.cnn.com/2013/08/09/health/weed-potency-levels/) than the THC content of marijuana that was widely available several decades ago or even two or three years ago. In fact the interesting thing about the few references to the marijuana research that were mentioned by proponents of marijuana use at the Thursday hearing, was that the references were to older inconclusive work that was done with user populations who were not using the potent kinds of marijuana that are widely available legally, today in places like Colorado and the state of Washington. The references to marijuana research by proponents of liberalized policies were also to studies conducted prior to the onslaught of designer drugs, increased illegal use of prescription drugs, and the growing epidemic of heroin use. Quoting of older studies on whether or not marijuana is a gateway drug have become somewhat immaterial. The fact is that the use of any of a wide range of psychoactive drugs can be found in communities where such drug use was unknown decades ago. There is a drug problem and the problem is overwhelming current resources to deal with it. At the same time policies are being put in place or considered that would increase the size of an already seemingly intractable problem.

How has this come to pass? Why hasn’t a significant portion of the public informed itself concerning the effects of marijuana and other psychoactive substance that are being so widely use? Why haven’t more people studied the research studies that reveal the extraordinarily wide array of harmful effects of one of the fastest spreading of the psychoactive drugs being used today? Are they unable to understand the scientific findings? Are some in denial that significant scientific findings even exist? Are they unaware that significant “show stopping” findings exist? Are their opinions being influenced by individuals who are users who claim to have experienced no ill effects? Are they convinced that the effects of marijuana are negligible because they are unaware of any harmful or negative effects that their own use has had on them? Is social pressure playing a significant role not only in the use of marijuana, but in their attitudes concerning the use of marijuana? Is groupthink in general also playing a role? Are wishful thinking and even magical thinking playing roles? For instance, believe it or not, there are those of all ages who will contend that since marijuana is a natural plant that therefore it could not possibly have harmful effects. It is as if these individuals knew nothing about the nature and the effects of naturally occurring harmful, toxic, or even deadly substances, including deadly varieties of mushrooms, hemlock, the castor bean and ricin.

Some individuals, some of whom have been using marijuana steadily for years, are certain that marijuana is not addictive and that it has had no harmful effects on them. One of the effects of marijuana use is the distortion of judgment. If one’s judgment has been distorted as a result of using marijuana, how is one going to be able to judge that his or her judgment has been distorted or impaired? A colossal conundrum indeed. Chronic users would likely find, as so many before them have found, that if they try to cease their use that they are indeed psychologically and physically addicted to marijuana. Indeed some are saying, who have had extensive personal experience of marijuana use, that it is more difficult to cease one’s addiction to marijuana than it is to stop using heroin. Ask any psychotherapist who treats those addicted to marijuana how difficult it is for them to help marijuana addicts who are trying to stop their use. Ask any marijuana addict who is trying to stop his or her use how hard it is for them to do so. Studies have found that one in nine marijuana users become addicted.

There are decades’ worth of research on the harmful psychological, mental, and physical effects of marijuana use. There is a website on the harmful spiritual effects of marijuana use. Such a website and links to others can be found at [SpiritualHarmofMarijuana.com](http://SpiritualHarmofMarijuana.com) . Those effects are not the focus of today’s presentation, however. Hundreds of references to the mainstream scientific research can be found in reports, articles and references at [GordonDrugAbusePrevention.com](http://gordondrugabuseprevention.com/). A Working List of Selected References and Resources on Marijuana is presently posted at that website. This selected list of references is scheduled to be updated and expanded soon. It will notable include many additional references and abstracts on the subject of the use of marijuana and the triggering of psychoses and schizophrenia.

Perhaps, most compelling, are recent findings outlined by Dr. Nora Volkow, Director of the National Institute of Drug Abuse, in an [interview with the Dalai Lama](http://dalailama.com/webcasts/post/300-mind-and-life-xxvii---craving-desire-and-addiction/4588). The exchange took place in the fall of 2013 in India and focused on the effects of mood-altering substances, including marijuana, on human behavior and brain functioning.  The video includes compelling brain scan results. Dr. Volkow discusses new information concerning the permanent harmful effects of marijuana on the developing brain. Proponents of legalizing the recreational use of marijuana may well change their views if they see this video. Here are two brief segment. See <http://dalailama.com/webcasts/post/300-mind-and-life-xxvii---craving-desire-and-addiction/4588>. First 8 minutes then 1:52:10 to 1:55:16 One of the most significant insights that I have gleaned from this video is the similarity of the ways in which drug use and addiction affects the functioning of the brain and decision making. As both Dr. Volkow and the Dalai Lama acknowledge, the person caught up in drug-taking behavior surrenders his or her “agency”, his or her initiative and will power, his or her judgment and the ability to make sound judgments. Dr. Volkow and the Dalai Lama also talk about ways of undoing and reversing addiction. This can be done by taking steps to reconnect the decision making part of the brain with the rest of the brain. Brain scans of a Buddhist monk also present during the videotaped exchange, show what a healthy functioning brain is like. The effect of participating in healthy activities, such as serving others and showing concern for others and engaging in meaningful activity can reconnect the disconnected parts of the brain. When an addicted individual is able to begin to overcome his or her addiction, the brain begins to show a return to a healthy functioning state. Of course, there will be some who have done irreparable damage to the functioning of the brain and their mental health, these individuals may not be able to fully recover.

The proponents of marijuana use and changed policies allowing for the use of marijuana do not seem to be paying attention to the significant research findings about brain functioning and behavior. As noted earlier, research recently published in the April 16, 2014 [***Journal of Neuroscience***](http://jn.sfn.org/press/April-16-2014-Issue/zns01614005529.pdf) revealed that structural anomalies have been found in the brains of casual users, anomalies that are linked to disruptions in behavior.  Most recently, long term behavioral effects, including a **seven fold increase** in suicide attempts, in young users of marijuana have been reported by [The Lancet Psychiatry](http://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366%2814%2970307-4/fulltext) in its September 9, 2014 issue.

Proponents may still dismiss such findings out of hand, holding fast to their view that marijuana is a “relatively” harmless substance. I was impressed however that one of the Council Members asked if I would send him a copy of the Journal of Neuroscience article which I have now done.

In some cases, proponents may not know about the wide array of research available on the effects of marijuana and they may not have the expertise to understand the significance of those findings.  The high THC potency of marijuana today is a compelling enough reason to keep its use illegal.  Unfortunately, those who in effect support policies that are resulting in the spreading use of marijuana seem to be ill-informed or uninformed.  How else might their arguments in favor of marijuana use or lifting of restrictions on the use of marijuana be characterized?  The arguments are varied but tend to ignore or be unaware of key facts concerning research findings. Here are some of the arguments that are frequently heard:

* **Libertarian Argument:**

“It is my life, my mind and my body and I should be free to do what I want to with them” or “I should be free to use the intoxicant of my choice” and “My use of marijuana is not hurting anyone.”

**A Response from a Public Health Perspective would be as follows:**  Is marijuana use a victimless act if it affects the lives of all those around the user, not to mention the life and health and mental functioning of the user?  Is marijuana use an innocuous act if it has known harmful effects on the developing brains of those who use it?  Is it an innocuous act if it affects one’s behavior and mental functioning? Is it a harmless act if the passive inhalation of marijuana smoke causes children or the elderly or a whole array of other sensitive individuals to experience a high unknowingly or against their will? Others impacted can include the mentally impaired, the developmentally disabled, former users, those with PTSD, the aging population, and more. With regard to societal consequences: What are the consequences of a “stoned” citizenry?  Can a representative democracy afford to have a dumbed down or partially stoned electorate?

* **Social Justice Argument:**

“It is unconscionable that society should disproportionately make criminals of individuals who use marijuana who are from lower socioeconomic group”.

**My response is as follows:**  Agreed. It is a fact that more individuals from lower socioeconomic groups are negatively affected by marijuana laws, even the new decriminalization laws that have been put in place locally in recent months.  The remedy, however, is not legalization which only increases its use, including its use among lower socioeconomic groups. A far better remedy is to use the justice system to provide an option to those who are apprehended: The option would be in lieu of adjudication and penalties. Such an option would provide those using marijuana the opportunity to choose to be remanded to drug court programs and other programs that emphasize counselling, education, or treatment and rehabilitation.  Through the use of judicial discretion, when such programs have been completed successfully the individual’s record of arrest or fines can be expunged. In this way, individuals would not be getting criminal records.   The aim of drug courts and other similar programs have been to discourage use of mood and mind altering drugs and help all individuals of all ages and from all walks of life. The aim should be to help individuals fulfil their potential to lead a healthy and fully functioning life.  Removing the restrictions on the use of marijuana, on the other hand, simply sends the false message that the marijuana has insignificant, harmless consequences to the individual and society, when in fact its use has significant harmful effects.

* **“Big Marijuana” Can Help the Economy**

“Turning marijuana sales and distribution into a regulated business will benefit the economy.  We can then regulate its use more carefully; treat it as alcohol and tobacco are treated; do away with the black or gray markets and intrusion of organized crime and cartels, and keep it out of the hands of those under the age of 21.”

**Response:** Indeed, what is currently happening in Colorado and Washington is that many individuals are continuing to make money selling drugs in the black market, easily undercutting the prices that the “legal” dealers are charging. Reports indicate the numbers of users of all ages are increasing, including those who live in nearby states.  According to [reports](http://www.rmhidta.org/html/FINAL%20Legalization%20of%20MJ%20in%20Colorado%20The%20Impact.pdf), the number of individuals seeking treatment had already been growing in the years prior to the legalization of recreational use of marijuana.  In addition, traffic fatalities in Colorado involving drivers testing positive for marijuana had already [increased by 114 percent](http://www.rmhidta.org/html/FINAL%20Legalization%20of%20MJ%20in%20Colorado%20The%20Impact.pdf) from 2006 to 2011.   Anyone familiar with the effects of marijuana on cognition, memory, concentration, judgment, perception, sense of space and time, knows full well that users cannot safely drive or operate machinery. Interestingly enough, even an organization that has been a leading proponent of marijuana use now says on its website that no one should drive under the influence. (Other notable recommendations are that no one under the age of 21 should use marijuana and the pregnant women should not use marijuana.)

* **States Have the Right to Legalize Marijuana**

“States have the right to legalize the use of marijuana even though it is in contravention of international treaties and federal law.”

**Response:** The President has a constitutional obligation under Article II, Sec. 3 to “take care that the laws be faithfully executed.”  The President is clearly not enforcing the Controlled Substance Act, which pertains to the control, distribution and use of marijuana.  He is allowing the abrogation of international treaties to which the U.S. is signatory. Elected public officials all parts of government and at all levels of government, including at the state and local level are also in violation of their oaths of office when they put in place or allow to continue policies that violate Federal laws and abrogate international treaties to which the U.S. is a signatory.

What are the implications for the future viability of the rule of law and the Constitution when states and other jurisdictions act in ways that are counter to international treaties and federal law? Or when the Department of Justice and the President allow states to abrogate international treaties and federal law?  An article on mine on “[The Illegality of Legalizing Marijuana Use: An Open Plea to the President and Other Sworn Public Officials](http://www.familysecuritymatters.org/publications/detail/the-illegality-of-legalizing-marijuana-use)…” published by Family Security Matters focuses in further detail on these concerns and is also available on my GordonDrugAbusePrevention.com website.

* **Tax Revenue Argument:**

“The taxes from the sale of marijuana will have an overwhelmingly beneficial effect on state budgets and those funds can be used for needed causes, such as drug abuse education and treatment programs”.

**Response:**  With increases in use, [costs to society](http://www.rmhidta.org/html/FINAL%20Legalization%20of%20MJ%20in%20Colorado%20The%20Impact.pdf) can be expected to grow.  In Colorado where use has been on the increase for many years, there has been an increase in fatalities resulting from accidents involving individuals driving under the influence of marijuana, resulting in incalculable costs.  There have also been increases in the numbers of individuals seeking emergency care at poison centers and emergency rooms. In addition, an increasing number of individuals are seeking treatment for chronic use and psychological and physical addiction. The Smart Approaches to Marijuana organization, headed by Dr. Kevin Sabet and former Congressman Patrick Kennedy, is tracking developments in Washington and Colorado. See their websites at [LearningaboutSAM.org](file:///C%3A%5CUsers%5CP.%20Gordon%5CDropbox%5CLearningaboutSAM.org) and [Grassisnotgreener.org](http://Grassisnotgreener.org), along with the website for Two is Enough – DC at [tiedc2014.com/](http://www.tiedc2014.com/) .

These and other public health and public safety and societal consequences are being widely felt. The impacts on individuals, families, the work place and work place productivity and safety in both public and private sector organizations, and society ~ these impacts in general are increasing and can be expected to do so exponentially where ever the use of marijuana is legal or otherwise sanctioned or widely used. No amount of tax revenues can begin to equal the costs to society and the economy. No amount of regulation will keep the use of marijuana from increasing in the states where, for the time being, its use is permitted. Steven Wright, the comedian, in one of his routines has mentioned the whimsical idea of “putting a humidifier and a dehumidifier in the same room and letting them ‘fight it out’ ”. In a way the same image has relevance to trying to regulate marijuana use while encouraging and/or sanctioning its use: The humidifier (the spreading use of marijuana) is destined to win out, however, because the dehumidifier will be quickly overwhelmed. There is no way that the costs to individuals society can equal the tax revenues that result.

The use in adjacent states to jurisdictions where marijuana can be openly purchased can also be expected to grow. Marijuana use can be expected to increase in states and jurisdictions where marijuana use has been decriminalized unless there are stipulations in the law in those jurisdictions that provide for alternatives to fines and other legal consequences. The alternative that users should be offered in jurisdictions where marijuana use has been decriminalized is the option of drug court programs, educational or counseling programs or treatment and rehabilitation programs. The State of Maryland is providing such alternatives to those 21 and younger, and expunging the records of offenders if they complete their counseling or treatment program. (See <http://www.washingtonpost.com/local/md-politics/pot-decriminalization--for-small-amounts--takes-effect-in-maryland-on-wednesday/2014/09/30/bc379534-48a5-11e4-891d-713f052086a0_story.html> ).

David Brooks made a point in his January 3, 2014 [***New York Times*** op-ed piece](http://www.nytimes.com/2014/01/03/opinion/brooks-weed-been-there-done-that.html?_r=0), “[Been There, Done That](http://www.nytimes.com/2014/01/03/opinion/brooks-weed-been-there-done-that.html?_r=0)” that **law is culture**.  Changing the law can lead to wholesale changes in behavior, values and beliefs.  Indeed, when the president (out of context, it is now said) minimized the harmfulness of marijuana, what impact did that statement have?  Any parent with youngsters or teenagers knows all too well the answer to that question.

It would seem to be magical thinking (ironically, an effect of marijuana use) to assume that the use of marijuana could be widely legally sanctioned and that its use would not spread throughout society.   Indeed, the authors of the 2012 Report of Organization of American States on “[The Drug Problem in the Americas](http://www.oas.org/documents/eng/press/Introduction_and_Analytical_Report.pdf)” discuss the profound implications of legalization.

 ….Even with relatively restrictive regulation, the result of le­galization is

 likely to be expanded use and dependency” (p. 94).

Proponents of legalization seem ready to jeopardize the social and public health of the nation and most significantly, the mental health, behavior, motivation and productivity of the rising generation. Here is the PSA that I had mentioned at the outset, a syndrome that can be found in teens and young adults throughout the nation.

Governor Jerry Brown has summed up the seriousness of the implications of marijuana legalization for the nation. In the ***National Journal***(3-8-14), he is quoted as saying:

***How many people can get stoned and we still have a great state or a great nation?  The world’s pretty dangerous, very competitive. I think we need to stay alert, if not 24 hours a day, more than some of the potheads might be able to put together*** (p. 44).

As never before in the complicated and challenging times that we live in, we need a citizenry and a rising generation that is able to focus on keeping the great experiment that is America alive and well. Certainly we do not want to encourage or promote the transformation of any other part of America into an Amsterdam, a Denver, or a Seattle. The ambient aroma of marijuana alone is the last thing that any thinking person in a representative democracy would ever welcome. Benjamin Franklin was asked when coming out of Independence Hall on the closing day of deliberations for the Constitutional Convention in 1787:
 “Well, Doctor, what do we have - a Republic or a Monarchy?”

 Dr. Franklin responded: “A Republic, if you can keep it”.

In the perilous and challenging times in which we live, what a tragedy it would be if we were to allow the erosion of the mental and physical health and welfare of our citizenry and thoughtlessly undermine this most noble experiment that so many have fought and died to achieve and sustain.

***Author****: Paula D. Gordon, Ph.D. is an educator, analyst, and online publisher with websites on* [*public administration*](http://GordonPublicAdministration.com)*at* [*http://GordonPublicAdministration.com*](http://GordonPublicAdministration.com) *and on* [*drug abuse*](http://GordonDrugAbusePrevention.com) *and* [*http://GordonDrugAbusePrevention.com*](http://GordonDrugAbusePrevention.com) *. She previously served as a consultant to the National Institute of Mental Health and also served as founder and former director of a non-profit organization focused on drug abuse prevention and early intervention. E-mail:* *pgordon@starpower.net* *.*