MARIJUANA & PSYCHOPHARMACOLOGICAL BOUNDARIES
GRINSPOON

Could we begin with where you are from and why you ended up in medicine?
I was born in Boston and have spent all of my life here except for one year in the Merchant Marine and later, upon completion of my internship, two years in the Public Health Service doing cancer research as the equivalent of my then obligatory doctor's military service.

I left Newton High School early in my senior year in 1945 to go into the Merchant Marine but after 14 months became disaffected with my adolescent romantic notions of going to sea and came back to Boston not knowing what I was going to do. A friend of my family, who was the Assistant Director of the Beth Israel Hospital, suggested that I might find medicine of interest and he helped me get a job as an orderly in the operating room. I soon found myself fascinated by medicine and that led to my going to Tufts College in 1947 and then Harvard Medical School in 1951, where I've been ever since.

When did you decide to do psychiatry?
I actually went to medical school because surgery was what I wanted to do. Soon after starting medical school, and I think it followed from my becoming acquainted with the other students who were going to be surgeons, I decided that surgery might not be right for me. Pari passu I was becoming more interested in internal medicine and, in fact, published my first research paper in the Journal of Clinical Endocrinology during my first year at Harvard Medical School. This was the beginning of a trajectory aimed at clinical medicine and research. But I was also interested in psychiatry and arranged for additional clerkships in psychiatry in both my third and fourth years.

Interested why - was it the teachers?
It was because of psychoanalysis. That was very big in Boston as well as in the rest of the country. This all coalesced during my medical internship here in Boston. At this time I became a little concerned that medicine wasn't quite as intellectually satisfying as I had thought it might be. If I were treating a patient with congestive failure and gave him digitalis he got better-- but why? There was no satisfying understanding - it was all empirical. Whereas, the more I learned about psychoanalysis, the more I believed that here was a "medical" discipline wherein gaining an understanding of the problem could lead to its undoing, and this seemed to me a more interesting path to take.

So I applied to the Boston Psychoanalytic Institute. And like my father, a lawyer who came to dislike what he saw as chicanery in the practice of law and left it, I left the practice of psychoanalysis after I slowly and painfully became convinced that as a therapeutic tool it had little to offer.

Can I ask you some more about some of the players - like Elvin Semrad?
He was very important to me. I was one of Semrad's fair-haired boys. But even before I started psychoanalytic training I went to Elvin and said, "You know, I'm not too sure that I can be happy spending my limited therapy hours treating just a few people; I think I might apply to the Institute as a class C candidate". In class C you go through the

didactic training but you don't see "control" patients and you are not allowed to practice psychoanalysis. It's more an intellectual exercise. No, no he said, you've got to be a class A candidate; I know you'll love doing analysis. I had such confidence in Elvin that I didn't pay enough attention to my own growing reservations.

I began to have problems from early in my psychoanalytic training with some of the theory but I then had even more problems with the actual doing of it. Elvin thought that as I gained more experience I would overcome my reservations and he referred many patients to me. Finally I told him that while I loved doing psychotherapy I couldn't practice psychoanalysis any longer.

At first I took the position that the problem with psychoanalysis was that somehow I just couldn't do it well. All of my Institute classmates were apparently able to make psychoanalysis work but I could not. As far as I could tell I was doing what I was supposed to be doing but somehow, compared to the patients I saw in psychotherapy, my psychoanalytic patients were apparently getting very little out of it. Finally, because it began to seem like a bit of a rip-off for those patients and I was becoming increasingly dissatisfied, I decided that I was not going to do it anymore. I loved doing psychotherapy but I had become totally disenchanted with psychoanalysis as a therapeutic tool.

What do you mean by psychotherapy in contrast to psychoanalysis?
Sitting and having an exchange with a patient which includes eye contact. I don't think you can do effective psychotherapy without looking the patient in the eye. My experience doing psychotherapy furthered my doubts about both the usefulness of free association and patients' capacity to actually do it. And the proof of the pudding was in the eating; I would generally get good results with my psychotherapy patients. And yet, while I didn't think I accomplished very much with psychoanalysis, I just this week received a note from a doctor I psychoanalyzed more than 30 years ago; he believes that I "saved" his life. I get appreciative Christmas-time notes from several of these analysands all these years later. It seems to me that this is, in fact, a reflection of the power of the transference in psychoanalysis. And it strikes me that this phenomenon is one of the reasons why it is a very difficult occupation to extricate oneself from, because it is so narcissistically gratifying. People lying on the psychoanalytic couch develop very positive, sometimes worshipful feelings for their psychoanalyst. The analyst doesn't have to say much; he can just sit there and increasingly become the object of the patient's affection and admiration. So it's no small wonder that it is difficult to give up. I think that the psychoanalyst who begins to entertain doubts has to have a pretty good bullshit detector to appreciate this and he has to be able to confront the fact that he may have made a serious career mistake. I think cannabis helped me to do this. So, I look back at this now and I see going into psychoanalysis as the big career wrong-turn I made.

Had you any previous difficulties with the Psychoanalytic Institute?
Yes, there were a couple of problems during my training. There was, and this was early in the public resistance to it, a two-day march that was going to go from Wellesley to the

Boston Common to protest the Vietnam War. On the second day of that protest I played hooky from my classes at the Psychoanalytic Institute as we assembled on a Saturday morning for the second leg of the march. There was a half-hour break between the two Saturday morning classes at which time people took their coffee in this beautiful old building with big bay windows overlooking Commonwealth Avenue. It just so happened that our small ragtag bunch -- and I didn't know anybody else in that group except a schizophrenic patient of mine -- went by the Boston Psychoanalytic Institute at just the time they were having their coffee break. Someone looked down and said, "Look, there's Lester Grinspoon!"
They were quite upset. They went to the head of the faculty who organized an ad hoc committee to consider the matter. The following week I was called before that committee and reprimanded. They told me that I was "acting out", that I was injuring the Institute's reputation, and that if I pursued this kind of behavior I would be obliged to undertake a second psychoanalysis.

Prior to that, during my training analysis, I published the lead article in the New Republic magazine, titled "Escape from the Bomb". It had to do with nuclear weapons and how people organized psychological defenses to protect themselves against the anxiety that would be expected to be generated by this extraordinary threat to our well being. And my analyst, Mrs. Beata Rank, formerly Otto Rank's wife, was appalled.

Why were they so upset?
Well, because the Psychoanalytic Institute of Boston is a conservative institution, and you're expected to be private, not at all outspoken or conspicuous -- a non-entity, because if you have too much of a persona it may effect your relationship with patients. Mrs. Rank anticipated by several years the ad hoc committee's view of my behavior when, after the publication of the New Republic article, she spoke of it as an illustration of my propensity to "act out". In this case I had "acted out" some conflict the nature of which I cannot now recall; I do remember that I experienced her interpretation as more amusing than enlightening.

During my analysis, I ruptured a disc in a boating accident and, as a consequence, I had to be flat in bed for a month. I had been going to my analytic hours four times a week at a cost that was far beyond my resident's paycheck. I was amazed when Mrs. Rank, who knew of my accident and was told in advance that I would have to be out of commission for a month, charged me for the whole period. When I complained about this, she unsympathetically told me to read a paper by Lilly Peller-Ganz in the Philadelphia Psychoanalytic Bulletin that addressed the issue of, or perhaps more accurately, provided a rationale for the psychoanalytic importance of paying for missed analytic sessions.

So I had problems from the very beginning. For one thing, I continued to wonder why my own personal analysis appeared to make so little difference; it is not because I did not l believe that there were things about me that I very much wanted to change or because I was not diligent about my analysis. When Mrs. Rank pronounced me "finished", I told her that it was difficult for me to see what I had accomplished in four

years of analysis. She assured me that the changes were subtle and would become more apparent over time. It's now been almost 40 years and I have yet to observe anything about myself which would confirm her prediction. Nevertheless, I did give the practice of psychoanalysis a fair go. I really wanted to make it work. I wanted the practice in psychoanalysis to be what I imagined it would be when I decided to go into it in the first place. But it never turned out that way. And because I did not make a secret of my disaffection with psychoanalysis I became a bit of a bête noire in the Boston psychoanalytic community, a large and influential one at that time.

What was the response from Elvin Semrad?
He was very disappointed in me, and that's part of what made it painful because I really loved that man. I came to believe that he was all wrong about this, but nevertheless he was a wonderful man and I hated to disappoint him. But, I had no choice; I could not continue to do something that I increasingly felt was almost fraudulent. I just couldn't believe that the time and money that those patients were spending on their psychoanalysis with me was worth it to them. But for five years after I stopped practicing psychoanalysis I took the position that the problem was me, that I just couldn't make it work. During those five years I maintained my membership and continued to pay my $500 per year dues to the Boston Psychoanalytic Institute and Society because I still believed that psychoanalysis had value but that it obviously shouldn't be practiced by people who were unable to make it work. It took a few more years and a number of cannabis-high sessions before I became convinced that I was not the problem. At that point, I resigned from the Boston Psychoanalytic Institute and Society.

How did you get into marijuana? Its use was criminal wasn't it?
Yes it was and still is. I got into it this way. I was the principal investigator of a 7-year study at one of the first Clinical Research Centers ever established. Our project was to compare the relative utilities of antipsychotics and psychoanalytically oriented psychotherapy in the treatment of schizophrenia. While we published a number of papers along the way, upon the completion of this seven-year project, Jack Ewalt, Richard Shader and I began to work on a book, Schizophrenia: Psychotherapy and Pharmacotherapy that would summarize our results. I had finished my parts of the manuscript and as the senior author it was my responsibility to put the whole book together. I was told by one of my co-authors that it would be about two months before his part was completed. This was 1967 and I was concerned about all those foolish young people who were using the terribly dangerous drug marijuana. I decided to take advantage of this two-month hiatus by going into the Countway library and reviewing the data on this drug with the goal of producing a scientifically sound review of marijuana that I could hope might be useful in stemming the tide of its increasing use.

Well, perhaps we ought to talk about your schizophrenia study first. Wasn't it Philip May who first demonstrated that psychoanalysis wasn't as good as physical treatments?
Philip May's book came out a little bit ahead of ours but I believe our paper in the American Journal of Psychiatry appeared before either book. These two intensive studies made it clear that the belief that dynamically oriented psychotherapy was useful

for schizophrenic patients was baseless.

How did the study actually happen?
Well, it came about this way. We were convinced at the Massachusetts Mental Health Center, which was at that time a very psychoanalytically oriented institution, that the premier treatment for schizophrenia was psychoanalytically oriented psychotherapy and we wanted to demonstrate its superiority to these new drugs -- thioridazine was the newest of the phenothiazines at that time. We were awarded a very large grant which made it possible to build a research ward and conduct this investigation over seven years. We first studied twenty patients who then would have been called chronic schizophrenics and had been continuously hospitalized for three years or more. The last two years of the grant were devoted to the study of people who were diagnosed as acute schizophrenics.

Just to be absolutely clear, looking back at the kind of patients you had do you think that they probably did have schizophrenia. Because there is a suggestion that the term schizophrenia was much more loosely used then.
The twenty so-called chronic schizophrenic patients were schizophrenic by any subsequent DSM definition. They were process schizophrenics. There was no question about any one of them.
How was the study organized?
The study was organized to compare how patients on thioridazine did in comparison to those who received placebo, but both groups would get psychoanalytically oriented psychotherapy. I originally wanted a 4-cell protocol, to include placebo psychotherapy administered by, for example, Harvard divinity students or other people who were clearly interested in helping patients but who had no formal training in psychiatry, let alone psychoanalytically oriented psychotherapy. However, Jack Ewalt and Milton Greenblatt believed that while it would be permissible to substitute a placebo for the drug, it would be wrong to deprive any patient of psychotherapy. There were no IRBs at that time, but we were not going to do anything that was thought to be unethical. While it would be unethical to deprive a schizophrenic patient of psychotherapy, you could certainly substitute a placebo for the thioridazine. A sign of the times.

The psychotherapists were all analysts. Of course the seminal finding of this study was the demonstration that psychotherapy did nothing for these folks. While they were receiving thioridazine, in terms of any of the measurable manifestations of the illness, they were much better off than when they were on placebo. We were unable to demonstrate that the psychoanalytically oriented psychotherapy made any difference at all. Now that did cause a lot of fuss.

What was the impact?
The impact was huge. The preliminary results were published as a paper, "Psychotherapy and Pharmacotherapy in Chronic Schizoprenia", in the American Journal of Psychiatry in 1968. The book came along in 1972. In response to the paper, Dexter Bullard, who was the psychiatrist-in-chief of Chestnut Lodge, a very psychoanalytically oriented hospital, wrote an editorial that was scathing to say the

least. Many of the folks at McLean Hospital, a private psychiatric hospital, were infuriated. But you see there was an underlying economic element to this vehement criticism because both Chestnut Lodge and McLean at that time admitted many schizophrenic patients from wealthy families and kept them there for long periods of time, sometimes forever, all the while treating them with costly psychoanalytically oriented psychotherapy.

But ultimately, opinion came around. For example, I heard Danny Weinberg assert at a conference about 20 years ago that this was a landmark study which made psychiatry give up its illusion about the usefulness of psychoanalytic psychotherapy in the treatment of schizophrenia. But, for the first few years after publication, it was rough going, no question about it.

And what about within the team itself? Jack Ewalt I thought was largely pro psychotherapy?
At the outset we were all biased toward psychoanalytically oriented psychotherapy, but Jack, upon seeing the data, had no problem with it. Although he was a psychoanalyst, he was first and foremost a scientist and an honest man; he didn't flinch.

Jonathan Cole raised the point that perhaps one of the lessons was that the high level of contact was a bad thing - between all the individual and group sessions?
They received no group sessions, only individual psychotherapy sessions. I think what he may have been referring to is the very active "therapeutic milieu" and there may be something to that criticism. I had recruited the patients from the so-called "back wards" of the Boston State Hospital, where they had been languishing with very little activity of any sort for years before being transferred to this newly built, bustling ward. There were all sorts of activities available to them in addition to frequent outings to such events as Red Sox baseball games, the Boston Museum of Fine Arts, etc. It's true, they received a lot of attention. The question has been raised, "Did it constitute a 'toxic dose' of "therapeutic milieu"'? I personally doubt that, and in any event that experience was common to all the patients whether they were in the drug group or the placebo group.

The results did cause a lot of consternation, even within the hospital, because this is far from what Elvin Semrad had expected. We had to negotiate what we were going to do about this. So I suggested that the therapists write their own chapter in Schizophrenia: Psychotherapy and Pharmacotherapy, say what they want and let readers decide for themselves what made a difference to these patients.

Now, the person who headed up the psychotherapy team was Elvin Semrad. He, Max Day and some of the other analysts wrote, as a group, a separate chapter and it was definitely a dissenting voice. It's as though they didn't believe the quantitative results. For example, when the patients who were getting thioridazine had their capsules substituted with a placebo for a three month period after the first year, and all their scores subsequently fell off, Max Day, who was treating one of them, wrote that this deterioration had to do with some recollection that his patient had had during a therapy session - which (unbeknownst to him) coincided with the thioridazine discontinuation.

Then when, after three months, we returned the thioridazine to the capsules, the patient began to do pretty well again. Max's understanding was that now that his patient had been able to "work through that problem" he was now improving. So that chapter is anomalous in the book. The therapists didn't accept or believe the objective data, they wrote their own chapter, and it stands out like the smile on the Cheshire cat -- there is a disconnect.

So back to marijuana

Yes; well, as I said earlier, in 1967 I was concerned that young people were using this harmful drug, marijuana. I didn't understand why it wasn't obvious to them that this was a very unhealthy and risky thing to do. So I decided to review the cannabis literature and put together as objective a statement as was possible, hopefully get it published in an appropriate vehicle and trust that some of these kids would take it seriously.

It was an extraordinary experience for me because I soon came to realize that despite my training in science and medicine I had been brainwashed like just about everyone else in the country. I ended up writing a long paper that was published in the now defunct *International Journal of Psychiatry*. The editor of *Scientific American* read it and asked if I would be interested in doing a shorter version for *Scientific American.* Shortly after it was published as the lead article in December, 1969, Betsy and I were in bed listening to the 11 o'clock newscast when we heard the announcement of the surprising news that a Harvard professor claims that marijuana is not as dangerous as alcohol or tobacco and should be legalized. The *Scientific American* article generated a lot of interest. Several publishers asked if I would consider writing a book on marijuana. Murray Chastain, the Deputy Director of Harvard University Press, came to my office and said, "Look you've already written this long paper -- you just expand that and we will have a book". Well, a book with the Harvard University Press imprimatur-- why not, and it would provide me with a chance to further my understanding of this drug which I found so interesting.

The marijuana phenomenon soon began to seem to me to bear similarity to one of the described by Charles MacKay in his book on popular delusions (Extraordinary Popular Delusions and the Madness of Crowds). Written in the mid-19th century, it described such widespread popular delusions as Tulip Mania, the Witch hunts and so forth. It struck me that we are involved in a grand delusion about the harmfulness of cannabis. When I first started this work in the late '60s people were being arrested at the rate of about 60,000 people a year (now it's over 700,000, 89 percent for mere possession), and most of them young people. So I was very interested in this. What I quickly learned was that while marijuana was not addicting, for me the excitement of learning about it certainly was. It was, however, at the same time painful to learn about the extent to which I had allowed myself to become ignorant about this substance, just like every other physician in the country.

I had another reason to get involved in this project. In 1967, when he was ten years old,

my oldest son, Danny, was diagnosed with acute lymphocytic leukemia. During the time I was working on the original paper, he expressed more interest in my work than he ever had previously. By the time I was working on this in earnest, he was a year older and even more interested in the subject. Earlier, because it was very important to me that Danny be able to see this book, I insisted on an understanding when I committed to Murray Chastain to write the book. We agreed that if the Press received the finished manuscript by a certain date, he would have a bound copy in my hands by March 24, 1971. There had been a bit of a "fly in the ointment". Harvard University Press's Board of Syndics, a group I imagined to be rather like the conservative, cautious bankers pictured in the Rembrandt painting "Syndics of the Cloth Guild", did not want to publish a book on marijuana. At that point I came close to signing a contract with a different publisher but the staff of the Press believed that they could get the manuscript through the Board of Syndics on a second try and indeed they did. I worked very hard to be sure that I kept my end of that bargain. Harvard University Press kept its commitment, and on the agreed-upon date I was able to give Danny a copy of Marihuana Reconsidered, a book dedicated to him with the words, "Children are the greatest high of all".

In the process of writing that book I became convinced that this substance was not only remarkably non-toxic, but that the cannabis experience appeared to be most interesting and I found myself becoming sorely tempted to try it. Also, my closest friend at that time, Carl Sagan, was an enthusiastic user of cannabis and he felt that I was being overly cautious in not sharing this experience with him. But I decided that I couldn't do it at that time because I was striving to make this book as objective as possible, an already difficult task without the added complication of personal experience.

The book concluded that much more harmful than any inherent psychopharmacological property of cannabis was the way we as a society treated people who used it, and the only sensible approach to cannabis would be to get rid of the prohibition and regulate it in much the way we do alcohol. I predicted that as it became clearer that so much of what we have feared about marijuana is based on myth, its prohibition would be seen as destructive and it would be repealed within ten years (that was in 1971!).

One more reason for postponing personal use of marijuana was that I imagined that if the book were successful I would be called on to testify before legislative committees and in court rooms and so forth. The book was quite successful. At that time The New York Times used to publish its lead review on the front page of the Sunday Book Review, and there it was, a most positive and sympathetic review by a former head of the FDA, under the banner, "The best dope on pot so far". And indeed, I was called on frequently to testify on marijuana.

One day, more than a year after the book first appeared, I was testifying before a Senate Committee in Massachusetts which included a senator, who by the nature and tone of his previous questions, made it clear that he was hostile to my position. He sarcastically posed the question that was commonly asked in hearings by those who wished to find fault with my position, "Dr Grinspoon, have you ever used marijuana?" As I have already mentioned, one of the two reasons I had decided not to try marijuana

previously was the importance I attached to being able to answer this anticipated question in the negative. During my early experience as a witness the question did not annoy me because it seemed to me to be a legitimate query about my credentials and expertise with respect to this drug. But the manner in which it was asked soon made it clear that the motive was invariably to discredit me. And here it was again from a legislator with the same obvious intention. Somewhat exasperated, I replied, "Senator, I will be glad to answer your question, but would you first tell me whether if I answer affirmatively you will see me as more or less credible on this subject?" Visibly upset, he said, "You are being impertinent!" and he stormed out of the hearing room. It was later that day that I decided that the time had come for me to try marijuana.

With the publication of Marijuana Reconsidered, people at parties frequently offered us marijuana. When we steadfastly refused, a few people would say, "What, you wrote a book about marijuana and never tried it?" I would say, "Well, I wrote a book about schizophrenia and I have never tried it". On this particular night at a party in Cambridge we were offered cannabis with the expectation that we would turn it down. They were surprised when the previously abstemious Lester Grinspoon and his wife said yes. We smoked and nothing happened. I was so disappointed. Then the disappointment turned to palpable anxiety. Had I written a book about a remarkably popular placebo? I began to think that I had been involved in something that bordered on fraudulent.

Betsy patiently explained to me, "Lester, you have spelled out in the book that there are many people who don't get anywhere the first try. It was his sixth time before Carl was able to achieve a high". I could, of course, accept that argument intellectually, but I was still quite anxious. Years later I realized that my first high was an anxiety high. Finally, the third time, again at a party in Cambridge, with Sergeant Pepper's Lonely Hearts Club playing on the "hi-fi" it happened. My kids were always admonishing me to get my head out of the baroque and listen to the Beatles, the Grateful Dead and so on. I couldn't help but hear this music because they were constantly playing it, but that night I *heard* the Beatles for the first time and it was thrilling.

Betsy and I recollect that we went into the kitchen with another couple with whom we shared a Napoleon. It was delicious beyond description. We asked our hostess, "Mary, where did you get this?" Well, we knew the bakery but their Napoleons had never before tasted like this. Then, going home that night, I was driving much slower than usual and was perfectly content to do so. When we got to bed, there was no doubt that we had achieved our first cannabis high.

Do I understand that you have continued to use marijuana over all these years?

Yes, I was 44 years old when I started to use marijuana in 1972. In the beginning it was mostly for fun. Then over the course of years, I came to appreciate that it was useful to me in thinking about some things. I had reviewed Andy Weil's book "The Natural Mind" for The New York Times. This was before I began my studies on psychedelic drugs and, regrettably, out of ignorance, I gave it a negative review. The Times said of the review manuscript, "We like your review so much, would see you be willing to expand it so we can make it a page and a half review?" One of the things Andy said which I thought at that time was absurd was that he found it useful to think about things that

were important to him both stoned and straight. Later, my own experience with cannabis confirmed the verity of that assertion. That discovery, among others, helped me to arrive at an understanding of how wrong I was in that review. In fact, ten years later, I wrote to The Times, and said something like, "I've got an idea: how about asking people who have written reviews of seminal books if they have second thoughts about them ten years later -- how has the book stood up with time?" I said that I would like to write a new review, one that would be quite different from the original, of "The Natural Mind". They didn't accept that idea. Too bad, because I think it deserved a very positive review and I would be the first to admit that my review was based on ignorance. I knew nothing about psychedelic drugs at that time and I should never have undertaken it. Andy was very decent about it. When James Bakalar and I published "Psychedelic Drugs Reconsidered", I was surprised that this was the first book that we had written on drugs that neither the daily nor Sunday Times was apparently going to review. Then I received from friends in different parts of the country a very favorable review by Chris Lehmann-Haupt of the New York Times. It was written for the daily New York Times and then sent out over the wire service to subscriber newspapers elsewhere in the country. So I called the Times and asked why it did not appear. It turns out that someone at a higher editorial level nixed it for the Times, but it had already gone out on the wire service. I was given no explanation for why it was nixed.

Sometime later I was talking to Andy Weil on the phone, and he said, "You know, I reviewed your book for the Sunday New York Times". "Really," I said, "it never appeared". "I know," he said, "I can't understand why. It was all set for publication; they even sent me the check." Following this conversation he called the Times and was told essentially the same thing I had been told about the daily review -- that someone at a higher editorial level had decided to kill that review. But he sent me a copy of it, and it was a very positive review. We both concluded that the reason they liked my review of his book was because it was quite negative about psychedelic drugs, and the reason they didn't like his review of our book was because it was very positive. Since that time, The Times has reviewed nothing of ours nor has it asked me to contribute any further reviews. It was a real sea change with that book. This was in 1977.

Cannabis was useful to me in helping me to arrive at the decision to abandon psychoanalysis. I would carry home in the evening concern about my work with patients, particularly the increasing difficulty in identifying increments of progress in my psychoanalytic patients. It was when I was stoned that I could most clearly see that there was no progress and I would become uncomfortable, anxious. This discomfort eventually compelled me to take the first step, which was to accept no new psychoanalytic referrals. Even more important, cannabis helped me over time to understand and accept that I had made an enormous mistake and that it was time to resign from the Boston Psychoanalytic Institute and Society. In a way it was like getting a divorce.

At the same time the impression was growing that I was accomplishing more in terms of self-understanding and growth through my sessions with cannabis than I ever did with Mrs. Rank. In fact, I remember a problem that I was very interested in when I was in analysis, the problem of why my father raised no objection to my decision to drop out of high school despite the fact that I was considered a promising student. Why did he not

instead push me towards college? The answer to that question finally became clear to me years later one night while I was stoned.

I gather you have no regrets about your decision to use marijuana.

None at all. In fact, I feel that I am most fortunate to have discovered the ways in which cannabis has and continues to enhance my life. However, I am somewhat uncertain about my decision to wait until after I had finished writing Marijuana Reconsidered before beginning to experiment with cannabis. As I have already mentioned, one of the reasons for waiting came out of a concern that my personal use would bias what I wrote about this drug and therefore make the book both less objective and less useful. If I had to do it again I would probably stick with this decision. However, there is no question that my personal use has enhanced my understanding of cannabis. For example, had I had experience with it at the time I wrote the section on marijuana and sex, I undoubtedly would have presented a much more positive and nuanced approach to the subject. Also, I have frequently wondered if it might have been useful to have begun smoking cannabis when I was younger, that is, younger than 44 years of age. I say this because I am aware of how useful cannabis has been to me in a number of areas including achieving some understandings and making important decisions. While I wish I had begun to use cannabis earlier in my life, I have, at the same time, reservations about its use by those who have not yet emerged from adolescence.

Now you also did books on Cocaine and Amphetamines. Now my reading of it is you're not sympathetic to amphetamine. Why not?

Oh, because I am convinced that this can be a terribly destructive drug with extremely limited medical usefulness. This first came to my attention through an acquaintance I had with a young recent Harvard graduate whose addiction to amphetamines destroyed what appeared to be a promising career in poetry. I was amazed upon coming across papers like that of W. R. Bett who in 1946 claimed that amphetamines were useful for 39 different symptoms and syndromes. Physicians touted it as a panacea second only to aspirin in its versatility and safety. Very little attention was paid to the fact that some people could get frightfully stuck on it and physicians were, for a long time, unaware that it could lead to a psychosis which was all but clinically indistinguishable from acute schizophrenia. It seemed to me that the medical establishment's love affair with amphetamines was a mirror image of its growing antipathy to Cannabis, both as a medicine and as a drug that was used recreationally. The amphetamines were thought to be relatively benign and extremely useful and versatile as a medicine; cannabis was believed to be quite toxic and without any medical utility. The amphetamines' potential for abuse and destructiveness was first called to my attention in 1971 shortly after Marijuana Reconsidered was published when I was invited to give a talk on cannabis at the University of Toronto. While in Toronto I was invited to attend a meeting of the council of Rochdale College. During the 60s, this experimental "free college" was established in a ten story high-rise building. The student council ran it completely. They made all the decisions regarding faculty, curriculum and admissions. During the council meeting, one of the members of the council took out a bag of grass, rolled a number of joints that were passed around so that the members could smoke as they deliberated. One of the things I learned was that the only people who were denied admission to the Rochdale College were amphetamine users.

Why was that?
I was told that it was because the amphetamine users were too intrusive and destructive. When "running" on speed they frequently destroyed property that belonged to the College and other students, and they were often loud, violent and paranoid. In writing about amphetamines I once again found myself paddling against the stream of accepted medical wisdom. Now I was dealing with a drug that the medical profession held in high regard and I was expressing serious reservations. In fact Senator Gaylord Nelson, upon reading "The Speed Culture: note Amphetamine Use and Abuse in America" decided to hold hearings, at which I was the lead witness. The hearings led to a tightening up of the means by which amphetamines were distributed. Physicians, because they so frequently prescribed them for so many different symptoms and syndromes, were the primary pushers of amphetamines.

You must be concerned then about ADHD and Ritalin?
Oh, yes. In 1973 I published a paper in the Harvard Educational Review that was very critical of the "treatment" of what was then called "minimal brain dysfunction". And I said then exactly what is being said now about the "over treatment" of ADHD. It was not an uncommon practice for teachers to decide that an obstreperous child had "minimal brain dysfunction", and directly or through the school principal arrange with the school doctor to start the young student on methylphenidate. The arrangement was often made over the phone, without the physician ever having examined the child to make a proper diagnosis.

If the drug is that destructive, surely teachers wouldn't be doing it?
Well Ritalin is a rather mild analogue of phenylisopropylamine. In fact, the manufacturer would have people believe that it isn't really an amphetamine. It is of course, but it is much gentler than methamphetamine and other congeners of amphetamine. But, my objection to its use in that context was not because I believed these kids were going to be turned into speed freaks, but rather because this seemed to me to be the easiest way to deal with an obstreperous child regardless of whether or not he suffered from ADHD. How many very active, curious kids whose teachers found them disruptive and more difficult to keep in their seats have been treated this way? I was concerned that this was not the way to deal with these youngsters.

Given the benign interpretation you put on marijuana and were later to put on the psychedelic drugs and picking out the views you had on the amphetamines might look to a person on the outside who doesn't know your personal story at all as though something personal must have happened. You explained that you have had people who have done poorly with amphetamine but have you not had people you have also seen who have done poorly with marijuana or LSD?

There are people who have upsetting experiences with cannabis, no question about it. The experience is primarily characterized by anxiety, sometimes accompanied by paranoia. The reaction is dose-related and treated with simple reassurance. These experiences are rare and are seen most commonly in first-time users who have not yet

learned how to recognize the subtle changes in consciousness which are used to guide self-titration and prevent the taking of too large a dose. Set and setting may play a role inasmuch as this reaction appears to occur less frequently in cultures that are less hostile to the use of marijuana. Finally, there are a few people who invariably get anxious when they smoke cannabis. Such people are found, rarely, even among Rastafarians who regularly use cannabis for spiritual purposes. The Rastafarians will say of such a person, "He don't have the head for ganja ".
As for LSD, bad trips and mild flashbacks are common and even expected, but usually considered a nuisance -- and occasionally even an opportunity -- rather than a danger. More serious but relatively rare problems are recurrent frightening flashbacks, prolonged reactions (usually a few days but sometimes weeks or longer), and suicides, and accidents. Thought and perception changes occur in some chronic users, but it is hard to say when these are immediate drug effects and when they are the result of reflection on the experience; in any case, they are rarely pathological and almost never irreversible. There is no good evidence of organic brain damage or genetic alterations. The dangers are greatest for unstable personalities and in unsupervised settings. Taken by a stable, mature person in a protected environment LSD usually alters mental processes profoundly for a short time without causing serious residual problems. Although a few people have unquestionably been damaged, the great majority of users, even repeated users, suffer no serious ill effects.
Users sometimes say of psychedelic drugs that a single dose has made them wiser and happier, given them profound new insights, increased their creative capacity or relieved some persistent erotic or psychosomatic symptom. For that they are prepared to take some risk and undergo some suffering, and the dangers must be weighed against these claims as well.

Do you see patients who are interested in using these drugs for therapeutic purposes?
Yes I do. But I do not see them as patients in the usual sense of the word because these drugs cannot be prescribed. So I really just give them advice, mostly with regard to the therapeutic uses of cannabis. I stopped seeing general psychiatric patients two years ago but because there are so few physicians who will or are capable of helping people with questions about the use of cannabis as a medicine I continue to make myself available to them mostly through my Marijuana As Medicine Web Site**(www.rxmarijuana.com)**. Those with a medical marijuana problem whom I am able to see me in my office are not billed.

Has that led to any problems with medical authorities?
The Massachusetts Board of Registration in Medicine threatened to take my license away last year.
How did that come about?
After reading a magazine article which reported on a talk I gave about my personal use of cannabis, the Drug Free America Foundation Inc. wrote to the Commonwealth of Massachusetts Board of Registration in Medicine. They enclosed a package of papers I had written, including several essays from my Uses of Marijuana Project Web Site **(www.marijuana-uses.com).** After sharing with the Board their concern about the

legal and ethical conduct of a cannabis-using physician who is licensed to practice medicine in the state of Massachusetts, and their certainty born of long experience that people who use marijuana become incompetent and irresponsible, they demanded that the Board exercise its responsibility to protect people from me by rescinding my license to practice medicine.

The Board demanded a written response to the "issues" raised in the letter from the Drug Free America Foundation. In my reply I stated that the complaint appeared to be political in its aims, a cynical and inappropriate attempt to make use of the Board's investigatory procedures to discredit me. I further said that because the complaint was both frivolous and lacking in merit it should be dismissed.

Some months later I received another letter from the Board which stated that I "did not adequately address all of the allegations included in the complaint." Again, I wrote that I would not answer these "allegations". Some months later I received another letter from the Board stating that the "complaint has been closed" without explanation. I found it to be as puzzling that the complaint was closed in the face of my having refused to respond to the "allegations" as it was that they opened it in the first place.

Was this the end of the matter?

Yes, as far as the Board of Registration in Medicine is concerned. However, I suspect that the Drug Free America Foundation contacted at least one other organization, the American Medical Association. About a month after the Board closed its case, I received a call from the lawyer for the Journal of the American Medical Association. The Journal had just been informed that I had reproduced *Marijuana as Medicine: a Plea for Reconsideration* on my Marijuana as Medicine Web Site **(www.rxmarijuana.com)**. This is a paper I published in JAMA in 1995. As the title suggests, it is a very brief review of the history of cannabis as a medicine in 19th-century America and a plea that its usefulness and safety as a medicine now be reconsidered. This lawyer demanded that I remove the paper from my web site. I asked him how he even knew about it let alone why he would want me to remove it. He replied that he was not at liberty to tell me who told JAMA but the Journal wanted it removed immediately. When I asked him why, he replied that the paper did not reflect the views of the American Medical Association. I asked him if that had changed since its publication in 1995. He did not answer this but impatiently said that the bottom line was that the Journal owns the copyright and again demanded that I take it off the web site. When I said that I would not, he concluded the conversation by saying that I would hear from them.

Did you?

No, and it has been several months since he called.

Boston and Harvard were the setting for Leary and people like that in the mid 60s. From what you were saying, you'd been relatively hostile at that point in time to all that scene?

I would say I was, yes. Again, just as with marijuana, I believed then that these were dangerous drugs and that what these young people were doing was risky. Incidentally, the first LSD trip in the United States took place in 1949 just down the hall from the office which I later occupied when I joined the faculty of the Harvard Medical School.

Max Rinkel, a psychiatrist on the Harvard faculty, was the first to bring LSD back from Switzerland. The assistant superintendent of the Massachusetts Mental Health Center, then known as The Boston Psychopathic Hospital, a fellow by the name of Dr Robert Hyde, was the first one to take LSD, the first person in the United States. Unfortunately, they got off on the wrong foot. They saw it as a psychotomimetic drug, because they gave Robert Hyde a big dose on less than ideal conditions of set and setting, as we now understand them, and he really flipped. And so people like Milton Greenblatt and Harry Solomon said, "Ah, we can now create temporary schizophrenia and this will provide us with a real tool to study this disorder". Fortunately that was a short-lived understanding of the usefulness of LSD to psychiatry.

Did you know Leary and Alpert?
Yes, I knew both of them. I knew Dick Alpert better because we were in high school together. He, of course, later became Baba Ram Dass. He's such an interesting story. His father was a very wealthy man with whom Dick did not get along. In high school he was rather obnoxious: a very rich, entitled, narcissistic, abrasive person. Then he went off to private school, and we went to different colleges. Some years later when I was head of the laboratory at the Joslyn Diabetic Camp during the summer after my first year of medical school, he, now a graduate student in psychology, turned up as a camp counselor. And my experience with him that summer reaffirmed my sense that he was an unattractive character.

Then he got hooked up with Leary, did a lot of psychedelic drugs and finally went off to India to study with a maharaja. He came back as Baba Ram Dass. Talk about personal growth, this man grew leagues. Amazingly, he was truly a different person. He became a warm, sensitive, generous and empathic man. He reconciled with his father and I gather they developed a close relationship. In fact, I know that he was very important to his father during his terminal illness; he patiently and lovingly helped him to die. How did he achieve this transformative growth? To what extent did it come out of his psychedelic experiences and to what extent his study of and immersion in Eastern spiritual teachings? I can't answer that question, but somehow he found the combination. This is real growth. As a psychotherapist with more than 40 years of experience, I have seen many people who have been able to achieve growth and others who appear to have developed a patina of growth, but I have never before seen this degree of growth. Dick's achievement is most impressive; it has depth.

Are you still in touch with him?
In fact I talked to him, perhaps a year ago. He had had a stroke, and he called me because his neurologist wanted him to give up smoking marijuana. He had noted something I had written about HU 211, the Israeli discovered analogue of THC, which is now called dexanabinol, and how it appears from animal studies that it may prove to be very useful to stroke victims for several reasons. Then it was discovered that whole cannabis does pretty much the same things. He had apparently read this paper and said, "Even though it helps with my spasms my neurologist insists that I should not smoke marijuana." I suggested that he might want to consider finding another neurologist.

As for Leary, he began his career at Harvard as a promising psychologist. It was Leary who first elucidated the seminal concept of psychological set and social setting, a major contribution to the drug abuse field. But once he started to use LSD and promote it, particularly to students, he began to be regarded negatively at Harvard. At about that time, it was my responsibility to invite speakers to speak at grand rounds at the Massachusetts Mental Health Center. He was brilliant and entertaining. People rarely found grand rounds to be as much fun, but they came away wondering how serious he was about all of this. As time went on, it became increasingly clear that Leary had a need to be a cynosure - he even tried later on in his life to be a stand-up comic. At one point, I think it was shortly after he was released from prison, I received a call from him asking me if I would ask my friend Carl Sagan if he would captain the spaceship that he was proposing as a way of escaping all the problems of earth. He appeared to be serious about this. These kinds of antics made it difficult for people to take him seriously. In popularizing psychedelic drugs he polarized the discussion about their usefulness. He managed to get many people worried about young people using LSD. And that ultimately came back to bite us in the ass in 1966 when it became impossible to do clinical research with psychedelic drugs. So I have mixed feelings about Leary. I liked him personally but he not was very helpful in furthering the study of psychedelic drugs.

What are those goals?

I think psychedelic drugs are clearly an unfinished story. Look at what happened. When LSD was first brought to the United States, it was seen as a research tool with which to study schizophrenia. That is, it was thought to be psychotomimetic; fortunately this view was short lived. Then the psychiatric establishment began to think that perhaps there is some therapeutic value to these substances, and psychiatry really got into psychedelic drugs. The present generation of psychiatrists knows little about the extent of psychiatry's involvement with psychedelic drugs. This was not a quickly rejected and forgotten fad. When James Bakalar and I were writing *Psychedelic Drugs Reconsidered w*e found that that between 1950 and the mid-1960s there were more than a thousand clinical papers discussing 40,000 patients, several dozen books, and six international conferences on psychedelic drug therapy. It was just enormous. I remember going to a meeting of the American Psychiatric Association in Atlantic City in about 1964 or 65, and so many of the sessions were on psychedelic drugs.

By the 60's or so Leo Hollister was beginning to say "Hey, there could be problems here".

This was the late 50s and especially into the 60s. There were people who were beginning to say there could be problems. People like Sidney Cohen said you can get into a lot of trouble; but on the other hand Sidney Cohen also demonstrated that it was people who were using it on the street, taking very large doses in absurd settings who were getting into difficulty, but when it was taken in a clinical or laboratory setting, the number of people who had bad trips was very small. It could, under appropriate conditions of dose, set and setting be used safely.

In the early '70s I was asked by the National Institute of Health to give a talk on psychedelics. Upon hearing that I was to give this talk there was such a fuss from some people in the Institute because I was seen as somebody who was concerned that there was a lot of unfinished business with respect to determining whether psychedelic substances could be used as therapeutic agents. This group believed, apparently strongly, that there was no point in reopening psychedelic drug research. So they asked Danny Freedman, who had become very conservative with respect to psychedelics, and Robert Dupont, who had been the first head of NIDA and who had evolved into a real Drug Free America type, to give little discussions of my talk. In the talk, I said that in the future there is every possibility that psychedelic drugs and cannabis will be used as tools to teach us more about how the brain works. Well, Danny Freedman got up and assured the audience that there was no possibility that these drugs will be able to do anything that will enhance our understanding of brain function. It was really striking the way he had come around with the times. Robert Dupont gave an almost substance-free discussion. At any rate, psychiatry had been very interested in psychedelic drugs, particularly their potential as aids to insight oriented psychotherapy until the rug was pulled out in 1966 and the government made it impossible for people to pursue clinical research on these drugs.

What's your take on what happened?
It was a preview of what's going on with MDMA now. I think MDMA has a very interesting therapeutic potential - more so than any of the other psychedelic drugs. But with its widespread use by young people and Ricuardi's studies of its impact on the serotonergic system and the possibility that with frequent use and large doses there is some risk of brain damage, the government has intervened.
How did you become involved in the scheduling of MDMA?
When it was about to be scheduled in 1984, I was a witness at the hearings held by DEA Administrative Law Judge Frances Young. I thought it should be in Schedule 3, as this would not compromise our ability to do research on it. The DEA wanted it to be in Schedule 1. Frances Young came down on our side just as he did in the previously held marijuana hearings; he held that it should be in Schedule 3. But the DEA overruled him and put it in Schedule 1. Then James Bakalar and I made a pro se appeal to the Federal Appeals Court in the First District. Much to our surprise, we won and this created what was called 'The Grinspoon Window'. The Court held that the DEA criteria for placing it in Schedule 1 were not satisfactory. During the several months that it took the DEA to rewrite the criteria, there was a period of several months when it was not illegal. As a consequence of this, a few people were released from prison and many had MDMA charges against them dropped. I received a couple of delightful thank you notes from some of these people. Then of course the DEA came up with new criteria acceptable to the court, and bang, the window is closed, it's put in Schedule 1.

I think if I had to sum up what I learned about psychedelic drugs as therapeutic agents in writing 'Psychedelic Drugs Reconsidered' and another book called 'Psychedelic Reflections', but particularly the former, I would say that their place as catalysts of insight oriented psychotherapy is not clear. I think there is something to this, but we have to pursue it. It’s far from a settled issue.

Have you had personal experience with MDMA?
In the early 80s students, usually two or three at a time, the started to come to my office to tell me that as someone who is interested in the therapeutic potential of psychedelic drugs I ought to try MDMA. I would explain that I generally did not just casually try a drug. These students came from two schools --the Massachusetts Institute of Technology and the Harvard Divinity School. At about the same time, some people from Esalen called - they were very interested in having me take MDMA at Esalon with them. I told them that I was learning a lot about Ecstasy since people began to urge me to get some experience with it. And from what I was learning about the experience, I would never take it with anybody but my wife. They said, "Well, we'll fly her out, too; you can both take it here". Betsy was not interested in taking MDMA at all, and I decided against going to Esalon.

The next step on the road to our trying MDMA occurred while I was doing a visiting professorship at the University of Arizona in 1984. Andy Weil and I had become good friends and at dinner one night he said to me, "Lester, there's a new drug you really have to try." I said, "Andy you're going to tell me I should take MDMA. I told him that at this point that I would be interested in trying it but the more I learn about it, the more I have the conviction that I don't want to take it with strangers or alone; I would take it with my wife. Betsy didn't want to because she knew enough about psychedelic drugs to know that LSD can grab you by the scruff of the neck and take you to places you are not prepared to be; we had had enough pain from the wound left by the loss of our son. He said, "You tell her I've used it a number of times, tell her this is unlike LSD in that it's completely controllable; if there's some place you don't want to go you don't have to go there ".

Now Betsy has a lot of respect for Andy, so when I told her about this compensation she thought she would like to try it. The MDMA came from an unimpeachable source through an intermediary. I wanted to be sure the stuff was pure and in the proper dosage. And so one day in 1984, before it became illegal, on a Saturday afternoon when I didn't have to be available for patients or anything else I turned the phone off. We loaded the CD player with the first seven Mahler symphonies and lay on the sofa in the living room. We took it at noon on an empty stomach and we didn't leave that sofa until 6 p.m. when we felt, despite our lack of appetite, that we should get something to eat. We had that afternoon what for us was a peak experience. We had believed that there was nothing of interest about each other or our relationship that we weren't familiar with, or hadn't shared or celebrated, but it was amazing how much was new to us, how easily and gracefully we got into it, and how insightful, exciting and helpful it was. Sometimes when we smoke marijuana even almost 20 years later we can experience a little echo of that same sense. It was really marvelous and she profited from and enjoyed it as much as I did.

I was asked to give a talk at the University of North Carolina about six months later and I was amazed because usually when I talked at a college there would be maybe a hundred or so people there. But here was an amphitheater that held 260 people and

people were sitting on the steps in the aisles.

The use of most new illicit drugs in this country starts in San Francisco and moves up and down that coast. Then they jump over to New York and down towards Atlanta and up towards Boston and so forth. They finally get to the Midwest and last of all they get to the South. In the case of MDMA, its use started in Texas and moved west and to California, but it also moved east through the southern part of the United States. The reason there were so many people in that room, I learned later, was because they had almost all used MDMA - much more so than students in the North. And they had very personal reasons for being interested in hearing what I had to say about this drug.

The first question they asked was had I ever personally used it. I told them about our single experience. And they said, "And you haven't used it since?" " No, I haven't used it since then." "Why not?" I said, "Well it's the kind of drug that I wouldn't use more than once a year, perhaps twice a year." "Why?" "Well, because there was so much to integrate from that one experience. Both my wife and I thought that we just wanted to have some time - it was a very rich experience, and it required some settling in time." The students were so disappointed; I think they hoped I would answer something like, “every week." And that happened before the development of this concern about serotonergic brain cell damage.

Well just on that line, New Scientist recently did a very good feature of just this issue of whether Ecstasy causes damage to the serotonin system. Is there any more evidence that it does this than Prozac or is it a question of does bad news about these drugs get out quicker and get sponsored more than bad news about the "good" drugs?

No question about it. The first report that came out in the Journal of the American Medical Association in 1988 described the effect on serotonergic neurons of not only MDMA but also the commonly prescribed drug fenfluramine or Pondimin, a commonly used appetite suppressant (they were described as neurotoxicologically similar), and yet there seemed to be little concern about fenfluramine. I think that the potential harmfulness of MDMA has been exaggerated. On the other hand, given that there may be a potential harmfulness when used frequently and/or in large doses, it doesn't make sense to use it casually. In other words, I think it could be used as a therapeutic substance, because as such, it would be used in modest doses quite infrequently. The problem is its attraction as a party drug.

In the late '80s I was asked to give a talk at a conference organized by Alfred Freedman on *Psychiatry in the 21st Century*. So I gave a paper on MDMA. The gist of the paper was that the available anecdotal data suggested that this was a drug which was crying to be looked at systematically for its potential as a catalyst of insight-oriented psychotherapy. There was a time when I thought it was not possible to give a definitive answer to the question, can consciousness-altering drugs be useful in insight-oriented psychotherapy. But I think with the advent of MDMA it's no longer a foolish question. It's a question that has to be taken seriously. I don't see MDMA as the end point but I see it as a step along the pathway. After all, with the phenylisopropylamines it's

estimated that there are potentially many more congeners, that we have just scratched the surface here. If that turns out to be true, insight-oriented psychotherapy in the 21st century will be much more accessible to many more people because it will be much less expensive and more expeditious, and it may help us to deal with some problems and disorders that we are not successful in treating now. Because of government restrictions, it has not been possible to do this and it continues to be all but impossible. Research on psychedelics as potential therapeutic agents was halted in 1966, not for scientific reasons, not because psychiatry didn't want to pursue this possibility, but for political reasons. The government said no at that time, and for all practical purposes, continues to obstruct this avenue of inquiry.

The politics being that these things drop the scales from people's eyes and they don't keep to their place in society?
Well, the number one concern and the one that gives the prohibitionists such animus is the fear that young people will use these drugs.

Well that's what gets said, but what are they really worried about?
That's a good question. I'd like to see a satisfactory answer for that because it's not just politics but it's a general worry about psychoactive drugs. Their experience with alcohol notwithstanding, many people are apparently frightened of any other drug-induced alteration of consciousness.

Has it nothing to do with these drugs for instance leading people to say well we don't want the United States to make war, and drug taking conflicts with US policies in this sense?
I think you are asking me why the United States government so adamantly insists on the prohibition of drugs like marijuana and psychedelics. Several possibilities occur to me. First off, there are now considerable vested interests in maintaining prohibition. The drug war has created a vast enforcement and "educational" bureaucracy, a drug-abuse industrial complex that parallels the military-industrial complex produced by the Cold War, and it is just as difficult to unseat. Forfeitures of drug dealers' property fill the coffers of the drug-control system, supplemented by the illegal seizures of corrupt drug agents. The drug war juggernaut also sustains a growing industry devoted to examining the hair and urine of citizens for traces of marijuana and other drugs. The pharmaceutical companies and drug-testing laboratories that profit from this practice do not want to see it end. Law enforcement agencies and prison building programs have a big stake in this war. Meanwhile, a mirror-image industry on a smaller scale develops techniques for defeating the drug tests and markets them through such magazines as *High Times*. Illicit marijuana dealers of course also profit from the present system, and so do the people who provide hydroponic lighting and control equipment to growers who seek safety from the law by moving indoors. All in all, a large and growing investment of capital and human resources is involved.

Secondly, marijuana has become a symbol charged with cultural tensions. Along with psychedelic drugs, it was seen as a catalyst of the antiestablishment movement of the

1960s and 1970s. Many regarded the free speech, civil rights, and anti-Vietnam War movement as socially healthy and exciting expressions of a vibrant democracy. But others saw these movements as symptoms of a society out of control -- just look at how these marijuana-smoking young people dressed and wore their hair! Even today, culturally conservative people are fearful of marijuana, and the media plays to their fear by presenting marijuana users as deviant. Successful middle-class users passively cooperate with this campaign when they keep their use secret and allow the media to focus on latter-day hippies.

Can you take me through the pharmaceuticalization of marijuana?
This gets to our concern as to why the government is so opposed to drugs like cannabis and the psychedelics. The government is so opposed to cannabis that when the first edition of *Marijuana, the Forbidden Medicine* was published in 1993 the head of the Public Health Service had some very negative words about the book. And then after California passed proposition 215 in 1996, Barry McCaffrey, the Drug Czar went to California with Secretary Shalala and threatened to rescind the DEA licenses of doctors who advised people on the use of marijuana as medicine. McCaffrey referred to my work on medical marijuana as a hoax. This from a man who knows about as much about the medicinal potential of cannabis as I know about the deployment of Abrams tanks. But with the enactment of Proposition 215, he appropriated one million dollars to have the Institute of Medicine do a study of the question of the medicinal uses of cannabis. Now at that time the television show the News Hour with Jim Lehrer asked me to be on with McCaffrey, but McCaffrey refused to be on the air with me. So they put McCaffrey and me on separately each for eight minutes. That's a measure of how concerned he is about Cannabis as a medicine and those who are promoting it.
I think the reason that people in the government are so worried about cannabis as a medicine is because they understand that as folks observe, as I did with my son, patients profiting from the use of cannabis to treat the nausea and vomiting of cancer chemotherapy and a host of other symptoms and syndromes, they will begin to question the wisdom of the government's position on cannabis. If this 14 year old youngster uses it to such advantage with no apparent toxicity, what's the big deal, why shouldn't he? Growing numbers of people are now seeing relatives and friends using it without harm for a variety of different medical reasons and they are coming to the conclusion that they have been misled about this drug. As the use of cannabis as a medicine grows and increasingly larger numbers of people come to understand that it is a relatively benign substance, there will eventually be a revolt against the idea that we are arresting more than 700,000 people a year, 89% of them for mere possession, most of them young people. It doesn't make sense.

So the government, fearful that marijuana would gain acceptance as medicine, supported Unimed's development of dronabinol (Marinol), which is merely tetrahydrocannabinol in sesame oil. The sesame oil is to prevent the possibility that the capsules could be opened and the contents smoked. Dronabinol appeared as a Schedule 2 medicine in 1985. The government was now in the strange position of having helped to bring a cannabinoid to market while at the same time insisting that

marijuana has no medicinal properties and that it remain in Schedule 1. And to those who insisted that it was useful for the treatment of various symptoms and syndromes, it could avow that it was not necessary now that we have dronabinol.

Now I have a lot of experience with people who use Cannabis medically and I have yet to meet a patient who has had the opportunity to use both dronabinol and whole smoked marijuana who prefers dronabinol. It's always something like, "Well, I have to use Marinol now because I am afraid of getting caught with a positive urine test, but it's not as good a medicine as marijuana". If a patient has a prescription for dronabinol, he is excused from urine testing. In fact, some patients, once they discover this, use their dronabinol prescriptions as cover and continue to use marijuana.

As more cannabinoid pharmaceuticals enter the pharmacopeia, it is the hope of the prohibitionists that these new drugs will make it unnecessary for anyone to use whole plant material, just as they had hoped with the arrival of dronabinol. There is no doubt that some of these drugs will do things that marijuana can't do. For example, suppose someone develops an inverse agonist to the munchies-effect, a real appetite suppressant that isn't toxic. A pharmaceutical company would make a fortune from such a drug. While there may be some new analogs which are more useful for particular medicinal needs than whole smoked marijuana, and there will be some which are free of psychoactive effects (for those who find that desirable), for the most part marijuana will do the job as well or better and it will be much less expensive than the new pharmaceuticals. The "pharmaceuticalization" of cannabis as a medicine will, those who are fearful of marijuana hope, bring an end to marijuana's use as a medicine. These people figure, "Okay, if we can just keep this prohibition from becoming unglued until the pharmaceutical companies come up with the various analogues, then we can say, 'No, there is no necessity, there is now no reason why you should be allowed to smoke marijuana'".

In the second (1997) edition of Marijuana the Forbidden Medicine, we came up with about 30 symptoms and syndromes for which it might be useful. For most of those uses marijuana is perfectly satisfactory; it's easy to self-titrate, it is remarkable for its lack of toxicity, and it will be much less expensive that these pharmaceutical cannabinoid preparations. And there is the question as to just how far the pharmaceutical industry will go in the development of these substances. It costs hundreds of millions of dollars to bring a substance X to the point where it becomes medicine X on the pharmacy shelf. Will drug companies undertake this development when there is a question about whether the product will be better than whole smoked marijuana, so much better that people will pay for something that will be much more expensive? Also, substances that are categorized in the Comprehensive Drug Abuse Act of 1970, particularly those in the lower categories, do not sell as well as non-scheduled drugs, and for that reason drug manufacturers are less enthusiastic about their development. Most of the "new" drugs which come to market today are really patentable variations on a "blockbuster", a big selling drug like diazepam or fluoxetine. Because the blockbuster drug here is marijuana, always a generic medicine (no patent), it seems to me that pharmaceutical houses will hesitate to commit large sums of money to the development of patentable cannabinoid analogs which will have to compete with the original blockbuster drug at significantly higher prices.

So you think the pharmaceutical industry will not develop cannabinoid

medicines?

No, I think that some will be developed. We already have dronabinol, and dexanabinol is now undergoing clinical testing. Dronabinol, as I have already said, appears to offer the patient very little advantage over marijuana and is more expensive even though marijuana is still burdened with a "prohibition tariff". Aside from its lack of psychoactivity, which may be an advantage for some and a disadvantage for other patients, it is not at this time clear whether dexanabinol will be more useful for some than marijuana. Cannabinoid drugs will be developed, but it is extremely unlikely that their availability will displace either the use of marijuana as a medicine or the growing demand that its use no longer be illegal. And if its use as a medicine is made a legal exception to the prohibition, how is it going to work that people are allowed to use marijuana as a medicine while at the same time severely punished if they use it for any other purpose? Who will distribute the marijuana that is allowed to be used as a medicine? The government, as it does now for the 7 remaining compassionate IND patients? And will the cannabis farms be required to have security fences and guards around them? Will pharmacies be required to have refrigerated safes in which to store it? What about the price? If prescribed marijuana is significantly less expensive than street marijuana, will not the lots of people seek prescriptions for it for the treatment of bogus pains in their backs or what have you? A similar problem exists with regard to potency. If the physician-prescribed marijuana is more potent than that which can be found on the street, those prescriptions will be coveted. Conversely, if prescribed marijuana is less potent and/or more expensive, the patient whose insurance does not cover it is more likely to buy it on the street. And how will its use as a medicine be monitored? It would be a bureaucratic nightmare - it just can't work.

How do you picture it playing out if the government does not allow for the legal use of marijuana as a medicine?

Under those circumstances it seems to me inevitable that at least for some time there will coexist two distribution pathways for this medicine: first, the conventional model of modern allopathic medicine through pharmacy-filled prescriptions for FDA-approved medicines. And second, a model closer to the distribution of alternative and herbal medicines, where there is little if any quality or quantity control. Either way, growing numbers of people will become familiar with cannabis and its derivative products. They will learn that its harmfulness has been greatly exaggerated and its usefulness underestimated. We can expect that with this growing sophistication about cannabis there is likely to be growing pressure to change the way we as a society deal with people who use this drug for any reason.

Is there any suggestion that what's good about marijuana has to do with having the whole thing and that in principle almost we can't isolate what it is that's good?

I'm glad you brought that up. Pharmaceutical companies, like G. W. Pharmaceuticals, aver that it is important to develop cannabinoid medicines which do not have to be

smoked and which can achieve the desired therapeutic effect free of any psychoactivity. If the concern about smoking marijuana was not a red herring before the development of vaporizers, it certainly is now. As for the psychoactivity, I am not sure that some of the therapeutic effects can be separated from the high. There are some medicinal utilities where they can be separated; for example, cannabidiol, which appears to be useful in the treatment of anxiety, among other things, is not psychoactive. But I am not so certain that the high is not useful to some people as, for example, people who suffer from low-grade chronic depression. Or consider patients with multiple sclerosis who use it primarily because they get great relief from the muscle spasms which can be so painful. But these patients frequently claim that cannabis also helps them because it helps them to feel better. Similarly, patients who use cannabis in the symptomatic treatment of other chronic illnesses frequently claim that when they use marijuana for what ever medical reason, they feel better. In recent years medicine has come to appreciate that if a patient feels better he is likely to do better.
So to say the high is necessarily deleterious is, I think, absurd. The high is important for many patients. Maybe we should use a different word than "high". But the fact of the matter is that there is a mood element in most chronic disorders, and cannabis is a mood elevator.

One of the first uses of the term mood-stabilizer is in one of your articles on it as a mood stabilizer.

Actually, that term had been around for a few years. But with the paper you refer to, I became the first to propose that cannabis could be used quite effectively as a mood stabilizer in the treatment of bipolar disorder.
Just as the Australian psychiatrist John Cade in the 1950s first claimed, on the basis of anecdotal evidence, that lithium is useful for this purpose, I made the same claim for cannabis on the basis of anecdotal evidence that I had accumulated. I have a number of people who suffer from bipolar disorder who find it more useful and less toxic than the available medicines for the treatment of this disorder. Cannabis, leaving aside its legal status as a medicine, is in a position similar to that of lithium in the late 1950s. Do you know that lithium wasn't commercially available in this country until the 1970s? As a chief resident in 1960, I was one of the first to use lithium after reading Cade's work. I asked my local pharmacy to pack lithium carbonate in 400mg pills and I used it to successfully treat a patient with bipolar disorder for the first time in this country. But it was years before it became commercially available. Why? Because it was not possible for drug companies to make a profit on a substance they could not patent. Similarly, marijuana cannot be patented as a medicine.

Now the pitch of the mood-stabilization article was that a number of patients suffering from bipolar disorder report that cannabis is more helpful to them in stabilizing their moods than the conventional medicines with their disturbing and sometimes quite toxic side effects. Medicine doesn't pay attention to anecdotal evidence the way it once did before the advent in the 1960s of double-blind study, and in some ways that's a serious loss. You can't ignore the possibility that is powerfully suggested by anecdotal evidence that some if not many patients suffering from bipolar disorder will do better and be more

medication compliant with cannabis than they are with lithium, Depakote, etc. We need to look into this. Similarly, modern psychiatry has to take another look at the claim first made by the mid 19th-century French physician Moreau de Tours that cannabis is an effective antidepressant. There are now many dysthymic people who use cannabis in much the same way that others use Prozac; it makes them feel better. Does that make them dependent on it? Well, I suppose you could say it does in the same way people become dependent on Prozac.

Could we in principle get the antidepressant bit out or do we have to use the whole thing?

We could. First of all we have to identify what it is. It may be a combination, some synergism between THC and cannabadiol and/or other cannabinoids of which there are more than 60. It's certainly theoretically possible and might eventually be done, but imagine the cost. In the meantime people are not going to wait.

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