File No. 65381

C A N A D A

IN THE PROVINCIAL COURT OF BRITISH COLUMBIA

(BEFORE THE HONOURABLE JUDGE F.E. HOWARD)

SURREY, B.C.

1995 NOVEMBER 28

REGINA

V

VICTOR EUGENE CAINE

PROCEEDINGS AT

TRIAL

APPEARANCES:

T. DOHM/J. HEWITT for the Crown

J. CONROY for the Defence

K. KUMAR Court recorder

S. GILKINSON Transcriber

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(PROCEEDINGS ADJOURNED PURSUANT TO ADJOURNMENT)

THE CLERK: Your Honour—

MR. DOHM: Sorry—

THE CLERK: -- if the case could be called for the record. This is the matter of Victor Caine. I have to put that on the tape, Mr. Dohm, otherwise it will be blank.

MR. DOHM: Very well.

THE COURT: Recall that case.

MR. DOHM: Thank you. Sorry to be late.

THE CLERK: Recall the witness. Should the witness be re-sworn?

THE COURT: No, that's all right.

BARRY LAINE BEYERSTEIN, recalled, testifies as follows:

THE COURT: You are still under oath, sir. Do you understand that?

A Yes, ma'am.

THE COURT: Thank you.

THE CLERK: And this is witness Barry Laine Beyerstein for the record.

MR. DOHM: That's correct.

EXAMINATION IN CHIEF BY MR. CONROY continuing:

Q Now Dr. Beyerstein we were going—or we had just referred to the tobacco advertising case, I think, at the end of the day yesterday, and through a good part of your evidence you'd referred to a study that was—or review of the scientific evidence that was done by Professors Zimmer and Morgan (phonetic) on behalf of the Lindesmith Centre, and we have a copy of that document. Is this the document?

A Yes, that's right. This is the original.

Q Okay. We had a copy without the face page. Let's tender that perhaps as the next exhibit and then the Court can follow along.

THE CLERK: This will be Exhibit 6.

THE COURT: Exhibit 6.

EXHIBIT 6 - LINDESMITH CENTRE REPORT

MR. CONROY: I have, Your Honour, an extra copy, but it simply doesn't have the face page of the Lindesmith Centre. It's one that you can mark up.

THE COURT: All right.

MR. CONROY: So that's just an extra copy for the Court to mark.

THE CLERK: And the witness be—needs the exhibit?

MR. CONROY: No, I think the witness has another—the original copy.

A Yes, I have my copy. Thank you.

Q Now I'd like you to just go through this. We touched on many of the areas yesterday, but I'd like to take you through this document because it, as I understand, is the—the most recent review of the scientific evidence that we have, is that correct?

A Yes, it is.

Q Okay. If we go to the first page there's an introduction and it basically summarizes what—in a very brief form what happened in the '20's and the '70's and—and right up to the '80's, is that right?

A Yes.

Q And it refers in the third paragraph to three large field studies, Greece, Costa Rica and Jamaica. Can you just tell us a little bit about those before we get into the document?

A Yes. Well, Her Honour yesterday was asking about whether the conclusions that I was drawing were based on epidemiological studies, laboratory studies, anecdotal data and—and I said "Yes, all of these." These—because none of these approaches by itself gives us all the information and with the confidence that we would desire and so I—and each has its own things to recommend it and—and shortcomings and so these are epidemiological studies and they were done because of course the approach to cannabis use differs widely in not only across historical eras, but across ethnic groups and—and across national boundaries even today, and so one natural laboratory to test out some of these conclusions is to go to a place where use of cannabis and hashish and—and other cannabinoid (phonetic) products is widely accepted, socially acceptable and where uses of sometimes more potent forms of the drug are—are everyday occurrences and simply get a group of—of people who indulge in that way and then ask the same kinds of questions that we discussed yesterday, I mean are these people immunologically compromised, is the violence rate higher, is the—the crime rate higher, is—or are any of the other health consequences and psychological consequences that we discussed any worse in these people who use these—these substances in their everyday life and—and I think to jump to the bottom line the conclusion of all of those large scale field

epidemiological studies has been, no, that there's no conclusive evidence that there's a great deal of harm in any of those categories that can be attributed to the fairly high level of marihuana use, which is higher than that we typically see in our own society.

Q And I understand what the Lindesmith Centre paper or review has done is essentially take the most prominent anti-marihuana claims that have come up over the years and examined each one looking at the scientific reports and data and other information, reviewed it, and then stated what the current state of knowledge and position is under each topic, is that right?

A That's—that's correct, and then they—they list in the back a bibliography of all the materials that went into that decision so that the reader can check for himself or herself.

Q Okay. Let's go through each one quickly, and we may have covered some of this yesterday. So in the areas that we've already covered, you can perhaps just indicate that. The first one, claim one, "Marihuana use is increasing at an alarming rate."

A They cite the figures here to dispute that, that in fact the rates are going down in most jurisdictions and—and perhaps the most interesting aside in all of this is that usage rates, when you compare them in different jurisdictions, show no correlation with the absence or presence or stringency of penalties. So there's no evidence that the law deters people one way or the other or—if they choose to use it.

Q Something we may touch on a bit more with Professor Boyd, but I believe you're aware of this too. When you mention that, I understand there's some eleven U.S. states that have very minor penalties, effective decriminalization for simple possession of marihuana. Is that accurate?

A Yes. In fact they have almost exactly what most states in Australia—three already have adopted and—and most of the rest are apparently in the process of adopting. It's essentially equivalent to a traffic fine, a violation that you pay a—a ticket essentially issued by the—the officer at the time and if you pay it you needn't appear in court, et cetera.

Q And so we have eleven states with a—a very low penalty type of structure, notwithstanding the other

position in the United States in terms of as the main proponent in the war on drugs, is that right?

A Yes, that's correct.

Q And so do we have then a number of states that have quite tough penalties for simple possession?

A Yes, we do.

Q Adjacent to some of these states that have these lighter penalties?

A Yes.

Q And in terms of patterns of use, has there been any difference noted?

A No. In fact the Lindesmith Report, the Australian report, the one we're calling the "Hall (phonetic) Report" for convenience, the one which the Crown has actually introduced as an exhibit, and a large study by Professor Eric Single (phonetic) of the University of Toronto all agree that the usage rates in the—these states with milder penalties vis-a-vis those with stringent penalties are really not distinguishable in any appreciable way.

Q I notice that in the Lindesmith Report, the second paragraph from the bottom under that heading about increasing rates, they also make reference to media exaggeration of harms and so on, and can you comment on that? It appears to similarly not have had the effect of decreasing use.

A Well, when scare stories are spread, whether it's by the media or—or by government or anyone else, if there's a large group of people who have personal experience and they realize that—that this just isn't so, I mean their own experience and that of a large group of their friends contradicts that, they not only discount that piece of information, but of course the negative spin-off of that is they discount valid information coming from those sources as well. So it's a very negative kind of thing to use scare stories and our government unfortunately resorts to that sometimes and it in the long run harms because people ignore the good information that they sometimes do put out.

Q But overall this investigation by Professors Morgan and Zimmer on this aspect seems to indicate that even

though people may have experimented and used, young people, that after a few years they cease using?

A This is—

Q That—

A -- generally true, that—that there—there's a decline with age and not only that, but there's been a decline—even for the same age cohort sampled over the last few decades there has been a—a significant decline over that period.

Q And—and that's what is indicated there in their study of high school seniors from 1976 --

A That's right. People who are of that age at that time in each of those epochs the rate of—of usage has gone down.

Q Okay. The next one is the claim that marihuana potency has increased substantially. We touched upon that to some extent yesterday in terms of how it affects the amount consumed or the effects on the individual.

A That's right. The—well, there are—there are two things that are brought out in this report. One is that the claim that the potent—the average potency of what's available on the street in North America has gone up dramatically is in fact not substantiated, that part of that is an artifact of how the sampling was done. So while there has been an increase, that is true, it hasn't been as widespread and general as—as some of those figures would—would indicate, but on the other hand I guess the—assuming that there has been some increase, we have to say "Well, fine, so what?" and what we know about all recreational drug use is that people titrate their doses. They're using it for a very specific effect on their consciousness and experienced users know what to expect and know how to gauge the internal feelings that they are at and wish to get to, and so I think I used the analogy yesterday between drinking whisky and—and drinking beer, that it's ethyl alcohol in both cases and—and we who indulge drink differently depending on the potency of the—of the substance. You drink less of a more concentrated substance than you do of a more dilute one, and—and this is really the botanical equivalent of that. So people who buy more potent marihuana use less of it.

Q And the—the graph or—or information that we have on that page is—shows then the mean percentage of

THC in seized marihuana over that period 1981 to 1993, all monitored by the Mississippi Potency Monitoring Project, and that shows us the essential mean percentage then throughout that period, is that right?

A That's right. It's been creeping up, but it's not the alarming thing that is sometimes claimed.

Q Okay. The third matter is "Marihuana is a drug without therapeutic value," and could you comment on that review?

A Yes. Well, there's a very fine new book that I think will probably be entering into our Brandeis brief at some later time by Professor Lester Grinspoon (phonetic) and Professor James Backalar (phonetic) of Harvard University. Lester Grinspoon is Professor of Medicine, Harvard Medical School, and Backalar is a Professor of Law at Harvard Law School, and they in that book summarize the ancient and modern use of—of cannabis products as a medicine and make quite a convincing argument that there are useful medicinal properties of this drug and particularly in the area of anti-emetics, that is drugs that reduce vomiting as—which are side effects of other—or strong medicines used in treatment of A.I.D.S. and cancer and so on, and in control of glaucoma, a serious eye disease that will lead to blindness and which sometimes is refractory to the atropine type drugs that are commonly used for it, and marihuana seems to work on those people for whom atropine does not, and there are a host of other things, migraine, pain management, menstrual irregularities, other sorts of things that have historically been symptoms that have been treated this way and—and now the medical research is beginning to catch up and do this in controlled clinical trials and it seems to show some promise in some important areas of therapy.

Q Well, this substance has been around for a long, long period of time and as we discussed briefly yesterday the—we've had the Ledaine (phonetic) Commission Report here in Canada in 1972-1973. Has there been a problem in conducting this research or bringing out the beneficial effects of this drug because of the current prohibitionist climate?

A Yes. It's difficult to get permission on an experimental basis to do this kind of research, and if one gets into this sort of thing you risk being tainted in various ways as well and—and therefore a lot of people who would do that kind of research have shied away from it.

Q See at the bottom of page 4, the documents says "The continuing illegality of medical marihuana is based more on political than scientific considerations. Although during the 1970's the government supported exploration into marihuana's therapeutic potential, its role has become one of blocking new research and opposing any change in marihuana's legal status," in reference to the American government I assume. Are you familiar with the—the—the data that underpins that—

A Yes, I—I've seen what—what that's based on.

Q Is the experience similar in Canada or not?

A Yes. In fact, that first sentence that you just read there about the continuing illegality being based on political rather than scientific considerations is almost a literal quote from Richard Garlic (phonetic), who is a senior spokesperson for the Canadian Centre of Substance Abuse in Toronto, which is a federally funded advisory panel. It's loosely associated with the University of Toronto, but it's actually a federal government—it might not be an agency per se, but it's a government funded thing anyway. It—it's the group that's supposed to advise the bureaucrats and politicians and the federal government on their policy matters in this area, and Richard Garlic made a statement to the Canadian press, which I have a clipping of in my briefcase, that says almost literally that, that—that if it weren't for the political considerations the scientific data would certainly not support the kind of policies that we've had over the last thirty, forty, fifty years.

Q Okay, and that can specifically be brought into this area of public health threat, could it?

A Yes.

Q In particular?

A Yes.

Q All right. The next claim is "Marihuana causes lung disease." Now we touched on that to some extent yesterday in terms of the smoking being the real cause and not the psychoactive substance?

A That's right.

Q Is there anything more that needs to be said about that?

A No. I would just draw everyone's attention to the middle of that page 5, which talks about that long-term longitudinal study done at U.C.L.A. Medical School. That's the study to which I referred in my testimony yesterday and so anyone who wishes to can look that up. It's referenced I think reference 22, and it's in the back of the reference section of this report.

Q All right. I note at the bottom and we—we talked a little bit yesterday about if it's the smoking of the leaves which causes a lot of the problems or can cause a lot of the problems in the same way as tobacco, that education could alleviate this and people could still take the drug in a different form and not smoke it and thereby avoid problems. I see a reference at the bottom also to different ways of smoking it. One of them mentioned is "water pipe." Does that substantially reduce the problems from smoking it the way one would a cigarette?

A Yes. There's another researcher at Harvard University named Rick Doblin (phonetic) and I believe it's Doblin's study that's referenced here, and there are also projects underway in California looking at this as well, and—and they're looking for various ways of filtering the—the smoke to reduce the harmful particulate matter and tars which, as we said yesterday, are really the things that interfere with—with pulmonary function.

Q The next claim is "Marihuana impairs immune system functioning." We touched a little bit on that yesterday—

A Excuse me, could I just add one thing to my previous answer?

Q Sorry?

A Of course we also said yesterday that that entire issue could be finessed by avoiding smoking altogether, that the substance can be eaten raw or in various preparations or in fact there are synthetic versions now. There is a synthetic THC that goes by the brand name "Marinol" and so there's no need to smoke at all if someone wishes to avoid that. So excuse me, I just wanted to—yes.

Q All right. I saw a reference to Marinol later on in the document. We can—in fact it's on the next page here. The next claim, "Marihuana impairs immune system functioning." Essentially being claimed that a user's risk of contracting various infectious diseases is greater, and what comment would you say about that?

A Yes. Well, here again there are studies, some in animals and some in what we call "invetro" which are in glassware and on the lab bench, that show that certain aspects of immune function are changed, reduced slightly by a—by exposure to some of the things in marihuana smoke, but as the novelist Gertrude Stein (phonetic) once said, you know, "A difference isn't a difference unless it makes a difference" and so in this case we have something that's a measurable effect and that's what gets trotted out as—as the finding and -- and as far as it goes no one has any quarrel with it, not this report or the Australian report or anything else, but this is why you need the epidemiological work alongside the lab work because what you get in an animal model or what you get in a petri dish on the lab bench doesn't always tell you what you need to know in the real world and it's—it's useful for a step, of course, and—and so for instance the way this claim has been tested is to look at people who are seropositive for H.I.V.

Now these are people who haven't yet developed full-blown A.I.D.S., but are certainly likely to, and many of them were marihuana smokers before this befell them, many of them began using—or using more to counteract some of the negative symptoms and—and negative effects of—of the medications they were taking, and so here are people who have compromised immune systems already and if use of marihuana has a serious deleterious effect on health by further reducing immune function then those who were seropositive and continued to smoke marihuana should have become ill with A.I.D.S. earlier, they didn't, and if they're studied for their rates of common adventitious infections they ought to get more of them and they don't.

So that plus the fact that you can go to the centres for disease control and look at the rates of infectious diseases and chart those along the rates of marihuana use in the public at large, and if marihuana is causing a serious health problem then as marihuana use goes up so should disease rates and as marihuana rates dip so should disease rates, and they show no—no correlation, and that's the Australian Commission's conclusion as well as that of the Lindesmith Report.

Q This would indicate that that was also found in the Jamaica, Costa Rica and Greece—

A That's right.

Q -- studies in particular?

A These were earlier studies that the Institute of Medicine Report that I mentioned yesterday also noted.

Q And the second to last paragraph on that page makes reference to Marinol, synthetic THC, and says that it's

been approved by the F.D.A. That's the, what, Federal Drug—

A Food and Drug Administration, United States.

Q The United States, for use in H.I.V. wasting (phonetic) syndrome relying upon the—the absence of any immunopathology due to THC.

A That's right.

Q So it's really opposite to what the original claim was, that it—

A Exactly.

Q Okay. It also makes reference in the last paragraph to the recent discovery of peripheral cannabinoid receptor. Now that's what you talked about yesterday?

A Yes.

Q Now we've had other cases in the Canadian courts then of 1992, 1993, in which there was expert evidence tendered. So is this discovery since that time?

A Yes, that's right. In fact, this is even later than the—the material I talked about yesterday was the discovery of the cannabinoid receptor in the brain.

Q Yes.

A And once that was identified then it became a very simple task to look for it elsewhere because they knew what they were looking for and as this says they found these receptors in the lymphatic system and that the drug may act—act—that is THC might actually have some immune stimulating properties that may be therapeutically useful.

Q So to be very clear on this, this is brand new information then that we've only come into—to our knowledge in the last two to three years?

A Yes. In fact we can check here the exact publication date, reference thirty-three. 1994.

Q Okay. So this discovery in 1994, or perhaps late 1993, and the one you spoke of yesterday, are we talking the same time frame?

A That’s right.

Q Okay. All right. The next claim is that marihuana harms sexual maturation and reproduction. Again we touched on that to some extent yesterday. Any further comment on that?

A No. Again the field studies we already alluded to didn’t find any evidence of this, and as I think you said yourself there has not been an epidemic of people presenting themselves to emergency rooms or doctor’s offices complaining of any of these things and attributing to their marihuana use.

Q So basically the studies seem to conclude that it does—that there’s no evidence that it impairs male reproductive functioning, no evidence that it impairs female reproductive functioning, and—or that it retards sexual development?

A That’s right. This is another example of what I like to call a "true but trivial effect" where if you measure certain hormonal levels pre and post marihuana usage you can see some small drop, but of course in normal people those levels are high enough that a small drop has absolutely no bearing on any kind of behaviourial or performance or health issue.

Q Okay. The next popular claim is that marihuana use during pregnancy harms the fetus. What would you say about that?

A Every study that I know of, and this was the—the conclusion of the—the Hall Commission Report—or commissioned report in Australia as well, it says that the only replicable finding in this area where people are exposed to marihuana, that is pregnant mothers have continued to use marihuana and nothing else, that shows any effect on the fetus is that some, and by no means all of those studies, find lower birth weight which, by the way, catches up in the first year and a half of life. So in other words that difference disappears very early on, but here again I think we have to lay that to the—at the doorstep of smoking per se, because we know that tobacco-smoking mothers have exactly the same effect and so I think the—the reason for this, the Australians concur, is that it’s carbon dioxide-carbon monoxide from the smoking activity in both marihuana and tobacco cases, and here again I don’t think any reasonable person would encourage, in fact should discourage, mothers from using anything that they don’t need to at that sensitive time, but the evidence that there’s any

serious long-term harm to their offspring is—is quite poor.

Q So if I understand it correctly, you're saying that nicotine in the case of tobacco and Deltanine (phonetic) Tetrahydrocannabinol in the case of marihuana have got nothing to do with that? It's the smoking aspect of it?

A That seems to be the consensus in the scientific literature.

Q And that again what we see is light birth weight which disappears though by the twelfth—twenty-fourth month?

A Yes, that's right. Fully by the end—substantially by the first year and almost completely by the second.

Q With no subsequent consequence?

A Nothing that has come to light yet.

Q Okay. The next claim is that marihuana causes brain damage. Now we touched on that a bit yesterday as well. Anything you feel we should add?

A It's just a good example of how very poorly done research, if it supports a political agenda, can be blown out of—out of proportion and used to support conclusions that are not really supportable, and here -- or very soon after those initial studies were done others rushed to try to replicate them using more sensitive tests and—and far better methodology and didn't find that and—and yet that failure to replicate didn't receive the kind of widespread public attention that the earlier poorly done studies had.

Q The conclusion on this page is that while if you're under the influence of marihuana your learning might be less efficient, the fact that you have used and if you'd used on a long-term basis that that doesn't appear to cause any impairment. Is that a good summary?

A Yes, and here again we can—we can invoke the Hall report. They concur almost exactly with what's in the Lindesmith Report.

Q Okay. The ninth claim is that marihuana is an addictive drug. In other words they're saying that if you start using it you're going to keep using it or—or it'll affect—and there'll be an increase in use generally if it becomes available. What do you have to say about that?

A Well, of course any drug can be used abusively and—and our research, the last twenty years of it, clearly shows that what determines abusive use is the personality of the individual and the social setting that he or she happens to be in and it's quite a misnomer, a total mistake, to think that, you know, once you're an addict you're always an addict. We have tons of data from our own studies to show that people can engage in addictive usage of virtually any drug at some time in their life and it's really a response to the stresses and social pressures that they're under at the time. It's a kind of a sub-optimal coping mechanism and in that respect any drug that helps people through these tough times can be overused and so there's—there's virtually no psychoactive substance that isn't used that way for limited periods by somebody, but in terms of—of withdrawal symptoms and in terms of escalating usage and in terms of daily usage, which are the more important criteria, marihuana really is a far less worrisome substance than most of the others because addictive usage means compulsive usage that destroys other aspects of your life because it's so centred on getting and maintaining drug supplies and—and so tobacco, for instance, if it weren't legal of course it would produce just exactly that kind of thing because the people who are addicted to it have to keep it in their system virtually their entire waking lives and—and they can go purchase it anywhere they want so we don't see the negative social effects, but at—the occasional user of tobacco is a rare bird. The occasional user of marihuana is the typical user and—and so to call a drug addictive that somebody can use once a week or once a month or once every other month really doesn't fit the model of addiction that I and my colleagues use.

Q Now there—there has been this development, at least in the United States as I understand it, of workplace testing, testing in schools and other places, basic urinalysis testing to see if people are drug-free, and as a result of that a number of people have been found to have used marihuana, or that comes up regularly in their tests.

A It's the easiest one to catch, that's—and it's the most prevalent illicit drug. So it's not surprising that the greatest number of hot urine tests are for marihuana.

Q Now the last paragraph of—of the document though indicates that because of that a number of these people then go through insured health programs sponsored by their employers or others presumably and go into

treatment programs as marihuana addicts. Does that—are you familiar with that?

A Yes. This is an economically driven thing. You know, people talk about the drug abuse, industrial complex, and it—it's really quite interesting to note that the people who get treated by and large just happen to be people who have the kinds of insurance that will pay for it and—and some more cynical observers of the scene have argued, as do the Lindesmith authors here, that this societal paranoia about addiction is really fuelled by the economic interests of—of the people who wish to convince the world that there is a big addiction problem here and it needs to be treated and it needs to be treated by them.

Q Do you know if that is occurring in Canada as well, or is it just happening in—

A Actually, I haven't seen comparable data, but we have a nasty habit of copying the Americans' worst follies and so I wouldn't be surprised that—

Q Okay.

A There—one other point on this perhaps is that wherever we've seen these kinds of crackdowns where people set out to eliminate marihuana usage, what we generally see in compensation is a rise in usage of much more dangerous substances and particularly with respect to urine testing in places where that's been introduced, people switch to things like cocaine that can be cleared from the system almost entirely within a few days, and so this was the—the situation in—in Vietnam, for instance, where the U.S. Army decided that they didn't like their soldiers smoking marihuana and started frisking and searching and using dogs to sniff it out and so on, and almost singlehandedly the U.S. Army created a cocaine and heroin epidemic amongst their—their troops because when you—when you clamp down on this more benign substance, which is easier to detect in all kinds of ways, because it's bulkier, it smells, dogs can pick it up, urine tests pick it up easily and so on, people switch to things that are eliminated from the system faster. They switch to things that are more compact and easily concealed and in general are more dangerous and harmful, and so the U.S. Army created a problem for itself that was quite unnecessary.

Q I just want to touch on something that you mentioned there, and I've seen it in the other literature. People talk about if you consume marihuana that it remains in your

system for a long period of time. Now could you explain that to us as between the acute stage and what is it that remains there afterwards and how—what are the—

A Right.

Q -- different effects?

A The psychoactive substances, or the cannabinoids, the most important one Deltanine THC as we've said, are very highly fat soluble and so—and not very water soluble, and so they tend to bind and accumulate in fatty tissue throughout the body and so what's available to stimulate those receptors and therefore produce the psychotropic effect has to be what's free and floating in the blood and able to be distributed to those receptor sites. Some, but very little of the THC itself, binds in—in fatty tissue and then gets released over a period of many days after that, but it's released so slowly and it's of small amounts that it never rises in the blood to a sufficiently high level that you could say the person was going to get stoned again. He or she would not notice the effect because it's so low.

What—what we're mainly concerned with when we talk about the long-term accumulation in the body are the so-called metabolites that virtually all drugs, not quite all but most, are deactivated by being broken down into inert sub-components by enzymes primarily in the liver and those components are then dumped into the urine or into the sweat or into the saliva or other ways that we've—into the breath in some cases, to be excreted from the body, and in this case because the metabolites of THC are fat-soluble they tend to mix with fatty tissues wherever they are in the body and then be let out on a very slow basis over a long period of time and so up to a month later you can pick up in urine tiny trace amounts of—of the breakdown product essentially, not THC itself but the breakdown metabolites of THC.

Q Well, if we took a person who was driving, obviously in the acute stage if they'd just smoked the marihuana and were suffering from the psychoactive effects, that could affect their ability to drive presumably?

A Possibly.

Q But if it stays in your system for weeks or a month, does what's in your system a week later have any affect on driving?

A No. No, the—the—primarily because they're metabolites which aren't psychoactive in and of themselves and even if there is some THC that's bound and let out on that slow basis it would be so small compared to the volume of blood in which it's dissolved

as to be, I think, impossible to produce any psychotropic effect.

Q So is it fair to say then that this remnant that—that remains in the system after the acute phase doesn't have any effect on—on—or any consequences in terms of the individual's ability to function?

A That's the conclusion of all the reports that we've been dealing with.

Q Okay. Next claim, "Marihuana related medical emergencies are increasing."

THE COURT: But Mr. Conroy, before you move on to that, can I ask a question or two about number nine because I'm not quite sure I understand the concept of addiction as it's used in this particular study. Is there a definition anywhere of—of addiction? What do they mean by "addictive" drug?

A The—the most commonly accepted addition—definition, rather, is that of Dr. Gerome Jaffey (phonetic), a former chief drug advisor to the U.S. government, and he describes addiction as an "overwhelming involvement with a drug to the extent that it causes disruption to one's medical, social, psychological well-being." So in other words, the person is so completely absorbed with obtaining the drug, using it, obtaining more of the drug, that it shows deleterious effects in one or more of these aspects of his or her life.

THE COURT: But that definition focuses very much on—on the user and the setting—

A Yes, it does.

THE COURT: -- upon which the user is—is using the drug. Why would one drug be more addictive than another to any given user? I mean, maybe it's not. I could be wrong, but—

A Well, in—in fact you're quite right that the modern concept of addiction says that—that it's not really the drug itself that's the important thing, that most people—and including things like cocaine, for instance. There's a large study done by the Addiction Research Foundation in Toronto, another equally large one the University of Amsterdam, that show that despite what's said in the newspapers and on T.V. that the vast majority of even cocaine users use it occasionally, use it responsibly,

don’t destroy their families or occupations, their social life or anything of the sort, and so it’s quite a mistake to think that any drug is addictive in and of itself, that all drugs can be misused by some portion of the population and I think the best explanation for how and when that will happen is that when a drug of a particular kind, and we discussed yesterday stimulants versus depressants versus hallucinogens and so on, that what a particular drug does for a particular individual at a particular time in his or her life can be beneficial, even if it has other social or personal cost at some other time, and if that happens then a person may be in some danger of developing a compulsive use pattern that we would call "addiction," but the vast majority of people can’t—can’t be addicted. In fact, a good example would be—would be morphine, which of course is virtually identical to heroin, and the incidence of addiction among people who are given morphine say to quell the pain of—of burns or surgery or something like that is infinitesimal, and they get pure stuff at a much higher dosage than any street addict, until perhaps recently where things have gone up, would ever have—have been exposed to, and so if it’s just the drug that makes somebody into an addict then everybody who gets heroin or morphine to—to alleviate cancer pain or post-operative pain or burn pain should become an addict, and that clearly doesn’t happen, in fact it rarely ever happens, and so it’s got to be some interaction of the person’s personality and the circumstances of his or her life with the particular effects of that drug at a particular time, and what our research shows is that if the world changes in the meantime, people find it surprisingly easy to give up addictions. It’s really just not true that once an addict, always an addict, that people can be addictively involved with any drug for a short period of time when things are going badly in their lives and then drop it equally quickly and with little trouble, without even treatment in fact, it’s called "maturing out," if the circumstances that led to that addictive use should change in their lives.

THE COURT: All right. I understand that drug addiction would be a multi-dimensional phenomenon. What I’m curious about is the drugs itself, the chemistry of the drugs and the interaction—or the physiological interaction in terms of the human body. Is there some reason for people saying morphine is a highly addictive drug as opposed to caffeine, if that’s even a drug, or something like that?

A About the—

THE COURT: The chemicals—

A Yes. You know, as we said yesterday when we were going through my C.V., I come out of a physiology background and a biochemical background and—and it's sort of conducive to my way of looking at the world to think that, you know, there's some kind of straight biochemical reason for addiction, and I started out thinking that and—and hoping to find—

THE COURT: Well, I'm not looking—

A But—but—

THE COURT: I'm not looking for a straight—

A Yeah, but—but—

THE COURT: -- single-pronged reason. I'm just wondering whether there is some aspect of the drugs themself independent of users and settings that make one drug something that we say is more addictive than another?

A Right, and it's only because each class of drugs has a different set of psychological effects and that happens to dovetail with a particular person who is vulnerable for social and psychological reasons at that time that we could really make that statement that this is a more addictive drug for that person at this time. I don't really think it makes a lot of sense to say this is an "inherently more addictive" substance, because most people can take or leave any of them. It's only a small sub-group who are—who are vulnerable and who for some period of time may develop a dependence relationship with the drug.

MR. CONROY:

Q Well, if we have tobacco, popularly anyway, lots of people indulged in tobacco and it's considered an addiction and that people have a lot of trouble shaking it, and we have the same popular view at least in terms of heroin, are you saying then that it's got nothing really—there's no specific thing in the chemistry of those two drugs that contribute to this addictive state as we know it?

A Only in the sense that Her Honour just indicated, that the chemistry is very specific and the effects as we've already said are very specific on particular neurotransmitters and sections—

Q Yes.

A -- systems in the brain, and that's why they have different effects. Now those particular effects are different for different drugs and that's what makes it more—more enjoyable, more useful in the life of a particular individual, and so for someone else they could take that drug, it would have exactly the same biochemical and psychological effects, but they would say "Uch, why would I want to do that? I—I—it makes me feel awful. I don't want to do that anymore" or "I've tried it. Get it out of here," and—and that's what most people do for most drugs that, if they try them at all, they say, you know, "I don't really need this," but occasionally in a vulnerable state when somebody is really looking for an escape from an un—intolerable reality, then what would be really quite intolerable to a lot of people, and probably even intolerable to that individual at another time, suddenly is kind of blessed relief and—and therefore they are vulnerable to addiction at—at that particular time and probably wouldn't be at another time.

Q Well, bearing that in mind, do we have real reason to fear that there will be a significant likelihood of this developing with marihuana if it became more available, that we would have the same numbers of people say as are involved in tobacco or—or the smaller numbers with heroin? Is that a likelihood?

A No. In fact, again we can look at the rise and fall in popularity of—of marihuana use in our own society, or we can look across borders to places where usage is high or usage is low for cultural reasons, and—and if we find higher usage we should find higher incidence of—of addiction, and those figures just don't bear any relationship to one another.

Q I know that you have to be at a class. I think we said about ten-thirty is when you'd have to leave to get there.

A Yes, and I'm hoping my car will start. I just about didn't make it this morning because I was caught on the freeway. It stalled and wouldn't start so—

MR. CONROY: Yes, we all had problems this morning. So I wonder if we could stand Dr. Beyerstein down then at this point. He's going to come back this afternoon, or be available to come back in the event that we don't conclude with Professor Boyd who I see is here and ready to proceed.

THE COURT: All right. We'll stand you down and see you later this afternoon.

A Thank you, Your Honour.

(WITNESS STOOD DOWN)

THE COURT: Would this be a convenient time for the morning break?

MR. CONROY: Yes, if—if you—

THE COURT: And return and charge ahead.

MR. CONROY: If you wish, certainly.

THE COURT: All right. We'll take the morning break at this time.

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

MR. CONROY: Yes, Your Honour, if I could call Professor Boyd.

THE CLERK: Please take the Bible in your right hand.

MR. BOYD: I prefer to affirm.

NEIL THOMAS BOYD, a witness called on behalf of the Defence having duly affirmed, testifies as follows:

THE CLERK: Please state your full name and spell your last name.

A Neil Thomas Boyd, B-o-y-d.

THE CLERK: Thank you.

MR. CONROY: I'm tendering Professor Boyd as an expert on marihuana distribution and use, on the markets, the history of the laws, and development of policy issues on drug use and distribution. His curriculum vitae was filed before as Exhibit 3.

THE COURT: Could I see Exhibit 3 please? Again, what is the Crown's submission, if any, on the field of expertise and the qualifications of this witness?

MR. DOHM: Again, Your Honour, I do not think that we need a voir dire, but I would like to hear his qualifications put on the record.

THE COURT: All right, and it bands with the first witness I presume, that the Crown wishes to leave open the option of arguing what use certain types of—

MR. DOHM: Certainly.

THE COURT: -- evidence such as policy issues—

MR. DOHM: Yes, Your Honour, certainly.

THE COURT: -- I might accept evidence—

MR. DOHM: Okay. Thank you.

THE COURT: -- on.

EXAMINATION IN CHIEF ON QUALIFICATIONS BY MR. CONROY:

Q Professor Boyd, you are the director, is it, of the School of Criminology at Simon Fraser University at the present time?

A That's correct.

Q You came from Deep River, Ontario originally?

A Yes.

Q And went to the University of Western Ontario where you graduated with a Bachelor of Arts Honours Psychology Program in 1974?

A Yes.

Q And you were then at Osgood Hall Law School and graduated there with a Bachelor of Law June of 1977?

A Yes.

Q And then a Masters Degree in Law from Osgood Hall 1979?

A Yes.

Q You've worked in a number of capacities indicated on page 1 of your C.V., including as a newspaper reporter?

A Yes.

Q A researcher with the non-medical use of drugs, Directorate Health and Welfare 1973?

A Yeah.

Q Is that connected to the Ledaine (phonetic) Commission?

A I believe they were summer scholarships that the Ledaine Commission distributed across the country.

Q Okay. You were a probation officer then for a period of time in 1974?

A Through the summer of 1974.

Q Okay. Worked in community Legal Aid services and as a research assistant '75 and '77 and then again in—both in the spring of '77 and the summer of 1977?

A Right.

Q And also then with the Ontario Royal Commission on Freedom of Information and Individual Privacy in 1978 as a researcher?

A Yes.

Q And essentially have been with the School of Criminology at S.F.U. since 1978, is that correct?

A That's correct.

Q First as an instructor, then assistant professor, associate professor, full professor 1989?

A That's right.

Q And then became director in 1993?

A I was director before in 1987.

Q You've received a number of awards and grants which are set out on pages 2 and 3 from 1973 right through to

1993, and a number of them have had to do with drug use in Canada, is that correct?

A That's correct.

Q You did a—you were involved in a research paper in 1979 that included the history of substance criminalization, is that right?

A Yes. I've been involved in looking at that issue, the history of selective criminalization of mind-active substances from about 1979 to the present, but I suppose the most concentrated research took place between about 1979 and 1982.

Q And would that involve you basically going back and looking at the complete history of drug laws in Canada from the early origins right up to the present?

A It did. It involved a lot of archival research in Ottawa, some interviews with politicians who'd been involved in more recent years, but primarily archival research, and newspaper. That was I suppose another kind of archival research, that is going back to newspapers of that era to try to get some sense of what public reaction was, what the public mood was at the time.

Q You have published a number of articles and books. The books are set out at the bottom of page 3 of your C.V. One of them includes "High Society Legal and Illegal Drugs" and I see you have a copy of that in front of you?

A Yeah.

Q And that essentially was a survey of legal and illegal drugs in Canada, is that correct?

A Yes.

Q Is that a fair—

A It was essentially an argument about drugs within our culture specific to Canada, but the findings, I think, are equally applicable to other western cultures, and it was an argument about the way in which we think about drugs and the way in which we conceptualize drugs.

Q In the articles that you have published, again they cover a number of areas of criminology, but also include

quite a few articles to do with drugs, drug laws, and cannabis, is that correct?

A That’s correct.

Q I note, for example, an article in Canadian Forum in 1981 on cannabis law reform.

A "Practical Reform for Marihuana," was that the one?

Q Sorry?

A "Practical Reform for Marihuana."

Q No, this one simply says "Cannabis Law Reform, Canadian Forum, April 1981."

A Right, that one. Yeah, right, yeah.

Q Okay, and then "Canadian Punishment of Illegal Drug Use Circa 1982, Theory and Practice."

A Right.

Q Another one in the Criminal Law Quarterly, 1982, "The Question of Marihuana Control, Is De Minimis Appropriate, Your Honour."

A Yes.

Q Also in 1984, "The Origins of Canadian Narcotics Legislation, The Process of Criminalization in a Historical Context."

A Yes.

Q "The Dilemma of Canadian Narcotics Legislation, The Social Control of Altered States of Consciousness."

A Yes.

Q You have done some research into sentencing in relation to narcotic offenders?

A Right, in 1987.

Q And the question of diversion?

A Well, that was for the Government of Canada.

Q Okay, and you have a paper that was in Canadian Lawyer in March of 1983, "The Supreme Court on Drugs, The Master of Reason and Disarray," is that the B.C. Supreme Court or the—

A No, no, no.

Q -- Supreme Court of Canada?

A The Supreme Court of Canada. No comment with respect to the B.C. Supreme Court.

Q "Practical Reform for Marihuana, Policy Options," March 1984?

A Yes.

Q And again without going to each one, a large number of articles, many of which dealt with legal and illegal drugs, is that right?

A That's right.

Q Now you've testified as an expert in relation to drugs and drug use before in Canada, have you?

A Yes. I—I can't recall how many times. I suppose it must have been at least a dozen or more.

Q And did you testify in those proceedings in relation to the history of drug laws?

A On—in some—on some occasions, yes.

Q And in relation to marihuana distribution and use?

A On some occasions.

Q And in the developmental—of policy issues on drug use and distribution?

A Yes.

Q One of the cases you testified in not long ago was the Fieldhouse (phonetic) case, am I right, the—

A That's correct.

Q -- question of urinalysis—

A Yeah.

Q -- in the Correctional Service of Canada?

A Yes.

MR. CONROY: Okay. All right. That's—that's—those are all the questions that I would have in terms of his expertise then, Your Honour.

THE COURT: Does the Crown wish to ask any questions on the qualifications or expertise?

CROSS EXAMINATION ON QUALIFICATIONS BY MR. DOHM:

Q I'd just like to understand that Professor—is it Professor Boyd, is that correct?

A Yes, that's right.

Q You were qualified on—as an expert on the history of drug laws in Canada?

A Yes.

Q And on marihuana distribution?

A Yes.

MR. CONROY: In different court cases.

MR. DOHM: In different court cases?

A I believe—

Q And on policy developments in other court cases?

A Yeah.

Q Okay. Do you have any way of knowing whether or not your evidence was accepted on—on any of those points?

A Accepted in what sense? Do you mean whether or not the judge agreed with my analysis or do you mean—

Q Yes.

A -- whether or not—well, yes and no. I mean, one can look, I suppose, at the outcome and say, well, the outcome was consistent with what I hoped it might have been, and in other cases one can look at the outcome and say, well, no, it was not consistent with—but—but certainly, I mean, I—I've received positive comments from judges during the course of my testimony, if that's what you mean.

MR. DOHM: All right. Thank you. I have nothing further, Your Honour.

THE COURT: All right. I will make a finding that this witness is an expert in the fields of marihuana distribution, use and markets, and on the history of the drug laws and the development of policy issues on drug use and distribution, and rule that he is entitled to give opinion evidence in those fields.

MR. CONROY: Now as with the previous witness, Your Honour, I did have Professor Boyd give me a bit of an outline just so that we would have that. So I have supplied one to my friends, I believe. If not, I have extra copies for them, and—and I have one for the Court.

THE COURT: Is that the one—

MR. CONROY: And I suppose we should deal with this in the same manner as we dealt with the last one, namely to treat it as Exhibit B so that it's distinct from the other exhibits.

THE COURT: Exhibit B for identification purposes.

EXHIBIT B FOR IDENTIFICATION - DOCUMENT

MR. CONROY: Thank you. I have an extra copy—well—

THE CLERK: So this is Exhibit B for identification purposes, Your Honour?

THE COURT: Yes.

MR. CONROY: Do you want an extra copy, Your Honour?

EXAMINATION IN CHIEF BY MR. CONROY:

Q I'd like to start then, Professor Boyd, is—is with the history of criminal prohibition of cannabis in Canada, but perhaps set the backdrop for that in terms of developments immediately prior to it, leading up to it.

A Well, I think it's very difficult to understand the—the history of cannabis prohibition without understanding the history of substance prohibition in -- in Canada itself, and in order to do that one has to go back to the late nineteenth century and—and begin to get a sense of—of the history that led to the first criminalization of any mind-active substance in Canada and that took place in 1908 with the criminalization of smoking opium, and I say that because in order to understand why in 1923 in the House of Commons there was no debate with respect to marihuana, there was simply an assertion "There is a new drug in the schedule," in order to understand how -- how and why that took place I think one does need to understand something of the history that—that led to prohibition and that led specifically to the prohibition of cannabis.

In the latter part of the nineteenth century the Chinese came to Canada at the behest of West Coast industrialists who were involved in building the industrial infrastructure of the west, and—and it's not surprising in some respects that—that they did come. They were offered ten times the salaries that they were receiving for similar kinds of labour in China, and in—in the latter part of—well, it began about 1850, 1860, but in—in the second half of the nineteenth century they came primarily to British Columbia and they brought with them the substance of smoking opium and they set up smoking opium factories in Vancouver, Victoria and New Westminster in—during the 1860's and 1870's.

By the mid-1870's these industries were a going concern, as I said, in those three cities and they were licensed as such with—within Vancouver, Victoria, and New Westminster. At that time the business of distributing and smoking opium didn't seem to be particular—of particular concern to the people of British Columbia, and the Chinese certainly were not a concern to the people of British Columbia. There was a labour shortage and they were very much welcome during that—that time of labour shortage. They were—they were willing to work for forty percent of what white trade unionists would work for. The Vancouver Trades and Labour Council had agitated against the Chinese, or—or would agitate later against the Chinese in relation to their cheap labour, but certainly they were a benefit to West Coast corporations because—because of the cheap labour that they provided.

Now as I said, initially the—the Chinese and their business of smoking opium wasn't a particular concern to—to politicians or to—to anyone really involved in—in public life in—in Canada, in—in British Columbia, but in the early years of the twentieth century that labour shortage became a labour surplus and at the same time there was continuing immigration from Asia, specifically from China, and if you look at statistics from—indicating the numbers of people coming to Canada, there were really very substantial increases in the number of people coming to Canada from China during the last decade of the twentieth century and in the first—sorry, in the nineteenth century and in the first decade of the twentieth century, and at the same time of course there was this—there was this labour surplus and—and the Chinese at this point, in

the early years of the twentieth century, were—were very much resented by -- particularly by conservative politicians, largely conservative politicians of the day, and the Vancouver Trades and Labour Council, organized white trade unionists, and if you—if you look to virtually any front page of—of 1906 in the Vancouver Province you find essentially racist cartoons vilifying the Chinese for their presence in—in Canada.

And in any event, one of the things I was interested in, in looking at this history of—of—of criminalization, was to determine whether there had been any interest prior to the implementation of the statute in 1908 in the criminalization of smoking opium. So we spent some time looking through 1906, 1907, 1908, the Vancouver Province and the corresponding paper in Victoria, the Victoria Times Columnist, trying to get some sense of whether there was public objection to this business of smoking opium, and I wasn't able to find any public concern about the business of smoking opium, about the fact that there were these smoking opium factories and that they were distributing—although they appear from testimony later to—to have been distributing equally to whites and to Chinese, there simply wasn't any concern, and if you look through the papers in greater depth you find that the only concern expressed about any form of drug use was with respect to alcohol, and I—and this was a time at which the Women's Christian Temperance Union formed, and I suppose it's fair to say that these women knew only too well of the drunken beatings that—that you received at the—at the hands of husbands or lovers or—or other intimates of one sort or another.

So it's almost ironic in some sense that—that when you look at the record of—of the public newspaper, the Vancouver Province and the Victoria Times Columnist, one doesn't see at the time of—of first criminalization any—any interest in that kind of approach to "the problem" of smoking opium. Quite simply smoking opium use and distribution were not seen as problems, and I suppose that's because of the social consequences of smoking opium use and distribution are much less serious than the—typically than the social consequences of alcohol use and distribution.

But in any event, what—what—what happened, as I—as I indicated, there's this tremendous anti-Asiatic sentiment developing in British Columbia during the first decade of the twentieth century, and in September of 1907 these conservative politicians and the white trade unionists of Vancouver, the Vancouver Trades and Labour Council, organized a meeting near where I suppose the Carnegie Centre is today, near the City Hall of that day, and a substantial number of people, I think fifty thousand if I am correct, or ten thousand—ten thousand people showed up in a—in a city of population of about a hundred thousand. So about ten percent of the population showed up to protest this continued immigration from Asia, and at the close of the meeting the—the crowd had been very angered by the speakers and at the close of the meeting they drifted into the Chinese and Japanese quarters of the city and there was a substantial amount of violence and property damage.

Now Canada, because it had—at the federal level, because it had relations with Japan and China, couldn't really afford this kind of—of treatment of—of the Japanese and the Chinese, and one of the things I did was to—to look in some detail at Mackenzie King who was then the Deputy Minister of Labour

and Wilfred Laurier's private papers to get some sense of how they felt about all of this and—and what was—was going on. In the fall of 1907 Laurier sent King, who as I said was his Deputy Minister of Labour, out to Vancouver to settle claims arising from Japanese merchants and—and at that time there was no thought of settling claims arising from Chinese merchants. King protested to Laurier in several letters saying, you know, "It looks as if fear and not justice is the motive. Why—why are you treating the Japanese merchants differently from the Chinese merchants," and of course I think the reality at the time was that Japan was considered a far more important ally than—than China and it was—it was seen as much worse to offend Japan than to—to offend China.

But in any event, ultimately Mackenzie King's protests were heard and he returned in the spring of 1908 to settle Chinese claims emanating from the anti-Asiatic riot. Basically the notion was that—that the people who had these businesses would be compensated for the damage that they received at the hands of this crowd, and during the course of the claims inquiry in May and June of 1908 King received two claim—claims requests from opium merchants and these opium merchants of course had had their businesses damaged and wanted compensation and—and King's response was reported in the Vancouver Province I think May 29th, 1908. He said "I will look into this drug business. It is very important that if these Chinese druggists are going to carry on business as such they should be licensed in much the same way as white druggists."

Three days later, after receiving a deputation of local Chinese clergyman and Chinese merchants, King had a very different spin that he put before the assembled commission. He said "I think it should be made impossible to manufacture this drug anywhere in the Dominion. We will get some good out of this riot yet."

Now it's interesting then that—that within three weeks smoking opium was criminalized. Not possession, but sale and manufacture, and merchants were given six months to sell off existing stocks. Kind of a going out of business sale. I mean, it seems almost ridiculous by our standards today, but really smoking opium was not seen as a significant problem. In fact one can find at the time of the legislation editorials in both the Canadian Medical Association Journal and the Canadian Pharmaceutical Association Journal asking where the impetus for this legislation had come from.

But I mean I think if we—if we listen to King we can see something of it ourselves, "We will get some good out of this riot yet." The first legislation to criminalize a mind-active substance in Canada was introduced by a Labour Minister at the behest of the Deputy Minister of Labour as a means of getting some good out of an anti-Asiatic riot. There was all sorts of talk in a twenty-nine page paper that King sent off to Ottawa about the dire consequences of opiate use and so forth, but—but nowhere was there any kind of systematic or—or even non-systematic empirical investigation of the harms of—of—of smoking opium or—or of its place relative to other mind-active drugs. In fact the problem simply wasn't conceptualized in that way. It was conceptualized as a labour problem and the legislation was introduced in order to get some good from a—from a labour crisis on the West Coast.

Q Let me stop you there just for a moment. You're familiar with Bruce McFarlane's (phonetic) book—

A I am, yes.

Q -- "Drug Offences in Canada," the second edition?

A `86?

Q And the—

A The second edition?

Q You've read the—one of your sources, I take it—

A Right.

Q -- would be—

A I think he has—

Q -- the chapters that he has done, chapter 1 on drug abuse—

A Right.

Q -- "Drug use and abuse from an historical perspective."

A Right.

Q And chapter 2 --

A He uses secondary sources as I understand it. He uses Solomon (phonetic) and Madison (phonetic) and a number of other people who have done the primary research, but yeah—

Q "A historical review of Canadian drug legislation," chapter 2.

A Right.

Q And I take it you would agree from your previous remarks then with his comment or the quote at page 19 from Mackenzie King's biography in which they—it's said that "Even the most charitable could never have described King as an expert. The truth was that the Canadian service did not contain one qualified to challenge King's knowledge, such as it was, on the

subject of opium, although doubtless there were a number of Immigration officials who had some familiarity with Far Eastern relations. In the country of the blind, the one-eyed man was King."

A Well, in—in fact on—yeah, I think that's true, but there's another side to King that's kind of interesting. In his diaries he talks about going—travelling to the Shanghai Opium Commission and he says that he'd been instructed to meet with a number of Sikhs enroute to the Shanghai Opium Commission and he said that they would give him a very different view of the opium "problem" and that they would provide him with evidence to suggest that—that it was really much the same as an Englishman's use of a cigar or spirits and that if it was taken from them it might result in many of the same kinds of problems that would emerge if cigar or spirits were taken from an Englishman, and then King goes on to say interestingly that "This was a view of the situation that I would not impart to the people of North Waterloo, but to Sir Wilfred privately," and—and of course the—in other words, I mean King was aware that—that this moral crusade that he was embarking on in relation to certain kinds of mind-active substances wasn't really all that moral. It was really—it was more political expedience, but—but he was saying that, you know, the fact that there was an alternative view of this matter was—was something that he was going to communicate privately to the Prime Minister, but certainly wasn't going to talk to his constituents about.

MR. CONROY: The reference I made is—Your Honour, it's tab 19 of my friend's Brandeis brief we have included those chapters from Bruce McFarlane's book.

Q So as a result, King within a three week period, you've indicated, came up with the first piece of legislation, and July 1908 I understand?

A Yes.

Q And then shortly thereafter he prepared a new bill, The Opium and Drug Act, which was passed in 1911, is that the next step?

A Yes. What was notable about that particular piece of legislation was the criminalization of possession. If one looks (indiscernible) the House of Commons Debates one finds comments, endorsations if you like, from—endorsements rather from—from the Montreal Chief of Police and from others who talk about the difficulty in being able to obtain convictions for sale or distribution

and the need to—to criminalize possession in order to obtain convictions. It wasn't that use was in any sense seen as criminogenic. It was just simply a strategy, that it was very difficult to -- to convict on the basis of sale or manufacture. The possession charge then was seen as a way of—of—of being able to more fully implement this—this approach to certain kinds of drugs.

In addition in 1911 cocaine was criminalized, and again the—the—the source was the Montreal Chief of Police. He was quoted as saying that, you know, "Cocaine is—is much worse than morphia. It is the agent for the seduction of our daughters and the demoralization of our young men." Now it may well have been appropriate to suggest that cocaine is a somewhat more dangerous drug than—than the opiates, but I wouldn't have chosen that language myself and I don't think too many people would today.

Q So what happened next then, after that initial—

A Well, there were—there were a number of—of changes. In 1919 the R.C.M.P. became the enforcement arm for the Department of Health and began to press for a number of enforcement—changes in relation to enforcement strategy so that in 1922 we had writs of assistance. We saw substantial increases in penalties through the—through the 1920's. We had a minimum two months in jail for possession to be accompanied by flogging through the 1920's. The—the—as I indicated earlier the maximum penalty of—of three months that was first set out in 1908, by 1929 had been—had been increased to—to seven years.

There was, of course, at this time in—interestingly a prohibition of alcohol which was—was begun in 1918 as—as part of the—the war effort, the notion that—that—sort of a patriotic thing, the people would stop drinking and distributing drink as part of the effort of the First World War, but there are some critical differences. Possession of alcohol was never criminalized in the way that possession of smoking opium or possession of cocaine was criminalized, and as I indicated, in 1908 the—the public—the Canadian public had no interest in—in drug legislation, essentially saw drug-taking as a—as a matter of private indulgence, a matter about which the State would have no particular concern. It certainly wouldn't move to legislate in relation to criminal law.

What's really quite remarkable is that in the space of thirty years, by 1929, what was once regarded by the Canadian public as a "private indulgence" in the words of Mel Greene (phonetic) had been transformed into a public evil, and there were—there were many catalysts for this. Of course the R.C.M.P. becoming the enforcement arm of the Department of Health. This was the social gospel area in Canada too so—so that, you know, we have the Women's Christian Temperance Union, we have the—the prohibition movement, there were similar kinds of concerns with respect to tobacco consumption, but—but never was there any really thoughtful examination at

that point of the line that separated criminal drugs from—from legitimate recreational drugs such as alcohol and tobacco.

And the book "The Black Candle" was—was—was serialized in McLeans in—in 1921 over a five, six week period and—and became a very—a very popular book and—and really established a name for its author, Emily Murphy (phonetic), who was—of course has another side to her which is as Canada's—one of Canada's original suffragettes and played a very significant role in that movement. Less well known perhaps is her contribution to the selective criminalization of mind-active substances and—and—and the extent to which she distorted reality to—to make her points.

I mean, I think that when you hear that in 1923 marihuana was criminalized with the simple declaration "There is a new drug in the schedule," that isn't particularly surprising. You didn't have what you have today, millions of Canadians who are—who are informed by their own experience, who recognize the relatively ludicrous nature of the claims that—that she was making, and if I can just give some indication of—

Q Just—just before you do that, she was also the first female magistrate?

A Magistrate, in Edmonton I believe it was.

Q That she was from Alberta, wasn't she?

A She was from Alberta and perhaps this was part of the problem.

THE COURT: I knew I recognized the name.

A In any event, she quotes approvingly from the Chief of Police for the City of Los Angeles in writing about "Marihuana: A New Menace," and again this—this book came out just prior to the criminalization of cannabis in 1923 and, as I said, was serialized in McLeans. "The addict loses all sense of moral responsibility. Addicts to this drug while under its influence are immune to pain and could be severely injured without having any realization of their condition. While in this condition they become raving maniacs and are liable to kill or indulge in any form of violence to other persons using the most savage methods of cruelty without, as said before, any sense of moral responsibility."

She closes the—the chapter "Marihuana: A New Menace" by saying "It has been pointed out that there are three ways out from the regency of this addiction. First, insanity. Second, death. Third, abandonment. This is assuredly a direful trinity and one with which the public should be cognizant in order that they may be warned of the sharp danger that lies in even curiously tasting poisons which have been inhibited or which are habit-forming."

So obviously this—I mean, it's very much like the film "Reefer Madness" which plays now—or has played for the past twenty-five years essentially to

college audiences and—and as a source of humour and delight, because the facts are so skewed, because the -- the reality is so different from what this film advocates. Similarly The Black Candle is—is a document of this sort, but it—but it's an important document and—and I guess the points I want to make in—in relation to the origins of Canadian narcotics legislation, first that this was legislation not conceived at all in relation to public health, but conceived for getting some good out of a labour crisis; and second, in relation to cannabis, that there was absolutely no one—no fair-minded person could claim that there was an informed debate in 1923 at the time that cannabis was criminalized.

MR. CONROY:

Q Just to take you back a bit in terms of what was going on involving cannabis and some of the other drugs, am I right that, well, prior to 1908, but in—in this whole period that this is the heyday of the patent medicine industry and that there's—a number of these substances are in various patent medicine?

A Right. Marihuana less so, but certainly cocaine was part of the many tonics, elixirs, analgesics, proffered by the patent medicine companies.

Q So—

A As were opiates.

Q So the substances were being put forward to—to assist with health rather than as a health problem?

A Right, and I suppose one can see the logic of it in the sense that opiates are very powerful painkillers and whether it's psychological pain or physical pain many -- many people perceived that they were useful drugs.

Q Is there any evidence of any type of—any scientific evidence of—real evidence of any problems from marihuana or cannabis during that period of time, health problems or—

A No. I mean, in fairness there was—use was relatively insignificant in—in that part of the century, but one can't find any informed opinion with respect to—to medical consequences.

Q And that—given what you've testified to, I take it that was still the same situation in 1923 when suddenly the new drug is added to the schedule?

A That's right.

Q Okay. There simply wasn't any evidence of—of a public health problem from this substance?

A Not at all, no.

Q Okay. Sorry, I interrupted you. If you want to then carry on?

A No, that was—

Q Okay. Well, we've dealt then with Emily Murphy and how her book was serialized in McLeans and obviously got widespread notice amongst the Canadian public.

A She was seen, I think it's fair, along with Mackenzie King, as a kind of narcotics expert and—and of course, I mean, even today we still have the Narcotic Control Act with the relatively absurd fiction that cannabis and cocaine and heroin are all narcotics, but I mean isn't (indiscernible) I suppose has the right to claim things to be other than what they are.

THE COURT: When Emily Murphy makes the comments that you've read to us in—in her writings, does she refer to any evidentiary foundations for—

A Well, she—

THE COURT: -- arriving at those conclusions at all?

A She refers to chiefs of police and their testimony before various commissions and so forth. She doesn't -- she doesn't refer to any kind of empirical evidence other than the—the opinion evidence of—of people who have the task of enforcing the law.

MR. CONROY:

Q And there were a number of investigations, weren't there, at that time by members of parliament, some of which were referred to by Mr. McFarlane in his book in the chapters I referred to earlier, or just questioning of witnesses in front of either parliamentary committees, this sort of thing? It was mostly to do with opium and the opium dens as I understand it.

A Right.

Q The effect young women—

A Yeah, that—some of that came out in 1885, the Royal Commission on Immigration to the West Coast, there was some discussion. You have some comments at that

point by the Chief Justice Matthew Begbie (phonetic) about the extent to which this business of smoking opium didn't really seem to be—seem to be an issue and he was surprised that anyone was—was seeing it as in any sense problematic.

Q I remember a young woman being interviewed in terms of her involvement in the opium dens in Vancouver, but I take it that was the 1885 Royal Commission, was it?

A I think so. I—I may—I think there—there was one other commission, but I—I can't recall the date.

Q Okay. So 1923, suddenly cannabis is in the schedule. What happened as a result of that? What was the next significant—historically?

A Well, historically, as I said earlier, you have an increase in penalties through the 1920's and—and in relation to enforcement strategies in addition. So—so you have the R.C.M.P. gaining writs of assistance, you have these new relatively draconian penalties for possession, the—the two years—sorry, two months minimum imprisonment plus flogging, and by the end of the decade this seven year maximum for distribution offences.

From—from the late '20's to the Narcotic Control Act of—of 1961 there—there's very little legislation of any kind, but I mean if one looks more generally to criminal law one finds a flurry of legislative enactments during this period, from 1892 through to 1929, and virtually no enactment in—in relation to criminal law from the 1930's through to 1961 and then we pick up again in 1961 with redefinitions of pornography and reconceptualization of homicide and the Narcotic Control Act again in 1961.

So I think it—it's probably part of a broader cultural trend the fact that there's very little happening between the late '20's and—and the early 1960's, and of course we have the Depression, then the Second World War, and then the post-war era and some concerns with respect to capital punishment, corporal punishment, lotteries and—and of course drugs to some extent in the '61 --

Q Mr. McFarlane in his book at page 25 of the chapter two refers to a special senate committee on the traffic of narcotic drugs which reported in 1955?

A Right.

Q And the quote there is "Marihuana is not a drug commonly used for addiction in Canada. No problem exists in Canada at present in regard to this particular

drug. A few isolated seizures have been made, but these have been from visitors to this country." Is that typically indicative of what was going on in that whole period?

A I think that's an accurate statement.

Q And I mean were we aware of any public health type problem at all from cannabis during that period?

A No. Other than of course the somewhat wild ravings of Emily Murphy, but no.

Q Did those continue on, those—from—in 1923, or did they die out at an early time after 1923?

A Well, I think they—I mean I think that it's been a gradual process from 1960 to the—to the present, and I think that, you know, by the late 1960's these comments weren't seen as believable, but—but—but in the early 1960's, with so little knowledge about cannabis, I—and with very strong penalties in place in the Narcotic Control Act, I'm not sure that—that that viewpoint was—was one that was really disagreed with in any fundamental way.

Q But that book came out in what year?

A 1923 -- 22.

Q So what about in that period, from 1923 say to 1960? Given the position of the senate committee in 1955 saying that marihuana wasn't a problem, wasn't a big deal in Canada, did her position get widespread public attention for a long time after 1923 and in that period, or did it just die out and marihuana wasn't a problem notwithstanding what she said?

A I—I—my—my sense in—in looking at that literature is that marihuana was used by so few people and—and the number of cases coming before the courts were—were so small that—that it—that the comment that you see in the '55 committee inquiry reflects the—the—the lack of action, if you like, in relation to cannabis over time.

Q Okay. So that takes us basically then up to 1961, is that right?

A That's right.

Q And what was significant then?

A Well, we have the Single (phonetic) Convention on Narcotic Drugs, which is a U.N. initiative which indicates a kind of international agreement to provide penalties in relation to the use and distribution of various substances, one of which is—is cannabis, and we have perhaps not at all coincidentally in the same year 1961 the Narcotic Control Act which is—which is legislation which creates very substantial increases in penalties for the use and distribution of mind-active drugs. I believe that the penalty for—the maximum penalty for distribution offences prior to the implementation of the Narcotic Control Act was fourteen years in prison. There was in the House of Commons in 1961 a lengthy debate about whether capital punishment should be opposed—imposed on those who distribute narcotics, marihuana, the opiates, or cocaine, and I think by a relatively small margin that amendment was rejected, but what—what of course remained in place and what was the intent of the bill was to provide for a maximum penalty of life imprisonment in relation to distribution of cannabis, cocaine, the opiates, and a few others, but principally from at least the perspective of today cannabis, cocaine, and the opiates.

Q So what was the penalty for simple possession then initially at least in—

A Well, in 1961 the—the penalty, it was exclusively an indictable offence, possession of marihuana, and the maximum penalty was seven years in prison. Of course, that—that—that remains today. It's still possible—

Q On indictment.

A -- to proceed by indictment for possession and—and there still is a maximum of seven years in prison.

Q And then that was changed though from 1968-69, that's how I understand it, is when the—the offence of possession became a hybrid, is that right?

A Right. I mean I think everything changed in the late 1960's in relation to cannabis, primarily because of widespread use by Canadian youth during that era.

Q During that period '61 up to '68-'69, did we have a public health problem apparent from cannabis use?

A No. I mean it's—there's—it's kind of anomalous in some respects. We—we have, after about three decades of inactivity, legislative inactivity, we have this new statute, the Narcotic Control Act, with very tough

penalties, tougher than anything that's ever been in place before, and then suddenly in about 1966 we start to see these marihuana cases, in the face of this get tough approach these marihuana cases coming to court, and each year from '66 through to '75 the number of cases coming to court continues to increase, but is there any indication of public health? Well, there certainly was a lot of concern starting in about 1966, 1967 about marihuana, what it—what it does to you or what it might do to you. So I think that that was the beginning of concerns about public health.

But more fundamentally I think also there were—it was really more about morality on—in some respect, I think. The—the notion that—that young people would use this drug which had—you know, was illegal and there was a penalty of seven years in jail for using it, and yet millions—ultimately millions of—of Canadians and Americans used the drug.

Q This was the period of time in the '60's and '70's where it was associated with youth and youth rebellion and—

A Well, I think—

Q -- the hippy movement and so on?

A Yeah, I think marihuana has always been associated with a relatively marginal group of people, you know, Mexican migrants in the '30's, and black jazz musicians in the States during the '50's, the beat generation, and in the '60's marihuana consumption was associated with the so-called hippy movement.

Q And so what—what then happened? There's another change in '68, '69 to provide for prosecution by summary conviction as well as by indictment?

A Right. I think—

Q So a lesser option—

A So there was a—yeah, there—there was a signal, if you like, from the Trudeau government in—in 1968, in the '68-'69 session, with this amendment to the Narcotic Control Act signalled that maybe we don't have to proceed by indictment in all circumstances of marihuana possession, and some say this wasn't really humane, forward thinking on the part of—or necessarily that kind of thinking on the part of the government. I think it more accurately reflected the problem of having these—these increasing numbers of people coming to court, but

I think it reached twenty thousand before the end of the '70's, or maybe it was in '70 it reached ten or fifteen thousand, but the numbers doubled one year, quadrupled the next, quadrupled the year after that, and—and so—and it was clear that—that—that a wide range of young people, middle class young people, the—the sons and daughters of people who had political power within the culture, were using this drug, and so the question was, well, gee, should we continue to—to treat this in the same way, and—and you can see that in—in—in the—the change in judicial policy over time. Although we've had very little legislative enactment in relation to cannabis, we have the '68-'69 amendment, we have some amendments to the Criminal Code in '73-'74 that arguably—well, more than arguably do have something to do with cannabis, the absolute and conditional discharges, but really it's the judiciary -- and the judiciary and the police have—have reconstructed the law from 1968 to the present. The law as it is today is—is very different in—in reality than what it was twenty-seven years ago.

Q So in '68-'69 the government has the option to prosecute simple possession summarily, or the penalties I believe were a five hundred dollar fine or six months in prison or both. What then was the next significant change or proposed change that may not have—have been made in terms of the (indiscernible)? Was that the Bill S-19 or was there—

A Well, I—I think—

Q -- changes before that?

A I think more significant perhaps was the construction of the Ledaine Commission in 1969. Trudeau appointed a relative—I think in retrospect one would have to say a relatively conservative group of jurists and physicians and policy makers to be the Ledaine Commission. It was to be chaired by Gerald Ledaine who was the Dean of Law at Osgood Hall Law School and there were representatives who were physicians, a criminologist Marie-Andree Bertrand. In any event, the—the commissioners were asked to inquire into the non-medical use of drugs in Canada and they produced two reports, an interim report and a report on—well, a report on cannabis in 1972 and a final report in 1973.

Q And what in a nutshell—do you remember what they recommended? I have it here, but—

A In—in relation to cannabis they recommended that possession of marihuana no longer be a criminal offence.

Q That was the—

A And they recommended I—I believe in relation—I can't recall the specifics, but in relation to distribution offences they recommended that the penalties be less severe.

Q Is it fair to encapsule what they recommended by reference to the current proposed Bill C-7, Controlled Substances Act? Is it fair to say that the penalties that they recommended in terms of importation, exportation, trafficking, possession for the purpose of trafficking, are essentially what is now in the proposed Controlled Substance Act and the only real difference is they—in the new bill is that decriminalization of simple possession and non-profit transfers is—

A I'd have to look at it. I think you're right with respect to the seven year maximum that's in the—in C-7 for—

Q Producing—

A -- cultivation.

Q Producing to you the report of the commission of inquiry into non-medical use of drugs, the cannabis report, and I've opened it at the—where the summary of the majority physician is. Either—either in terms of current law or in—in C-7, the proposed—

A It's a little more harsh in terms of 6© (phonetic) than—or rather a little more lenient than what C-7 suggests. I believe that C-7 in relation to up to three kilograms of marihuana has a maximum penalty of more than eighteen months, but I can't recall the specifics.

Q Okay. Well, we can get into that when we—

A But in any event—

Q -- introduce C-7, but—

A -- I mean there are certain similarities between this and—and C-7.

Q But the major recommendation of the majority of Ledaine was decriminalization of simple possession—

A Right.

Q -- and non-profit transfers?

A Right.

Q And that is not the situation in our current law?

A No.

Q Nor is it proposed in C-7, but the penalty for trafficking and possession for the purpose of trafficking am I right that they recommended a penalty of five years?

A Yes.

Q On indictment?

A Yeah.

Q In C-7 it's five years less a day, I think, for cannabis?

A Yeah, I—I—

Q Something like that.

A I can't recall the specifics. I—I haven't seen C-7 in its most recent formulation.

Q So—but—but the majority of the members of the Ledaine Commission recommended insofar as simple possession is concerned that it be completely repealed, correct?

A Right.

Q And then there was a minority report by Marie-Andree Bertrand who recommended the—not only the repeal of simple possession, but that essentially trafficking, possession for the purpose of trafficking, all of those offences should be treated in a different way?

A Right.

Q And then there was yet a further minority report by Ian Campbell and Mr. Campbell's conclusion or recommendations were essentially that as far as simple possession is concerned that the penalty should be punishable on summary conviction, a fine of twenty-five

dollars for the first offence and a hundred dollars for any subsequent offence, is that right?

A That's right. Now I had thought that that was a non-criminal fine, but—

Q Otherwise Mr. Campbell recommended that the current laws continue for other offences?

A Mm-hmm.

Q Okay.

A Yeah, I—I think his comments with respect to stigmatization indicate that his—his view of the—of a—of a monetary fine implied that there wouldn't be a criminal record kept in relation to the offence.

Q So that was 1972-73?

A Right.

Q Fair to say the most extensive investigation into marihuana use, at least that we've had in Canada up to that point?

A I think so, yes.

Q And those were the conclusions of the commissioners. What happened next?

A Well, the government—the report was tabled and—and the government responded in some respects by—I believe John Monroe (phonetic) was the Minister of Justice at the time—by introducing two provisions in the Criminal Code, absolute and conditional discharges, which he said at the time that—that these provisions were introduced would act in some way as a response to the concerns raised about stigmatization of young people through criminal records for cannabis possession, and the notion of course with the absolute or conditional discharge was that the person for purposes of employment would be able to say that they did not have—that they'd not been convicted of a criminal offence because they'd been discharged either absolutely or on conditions—or with conditions attached.

Q But the Criminal Records Act was either not amended or amended to ensure that one still had a record in any event, isn't that—

A That's—that's correct.

Q -- accurate? So that even though it was popularly put out in the press and still even sometimes today that, oh, if you get a discharge you don't get a record, the true of the matter, as a matter of law, is that you still have a record?

A That's correct.

Q Okay. Now I see it's almost noon, but there's a couple of articles that I want—I know you've reviewed and I want to provide to my friends and to the Court before we break for lunch. One of them is the article that you did in the Criminal Law Quarterly, 1982, page 212, called "The Question of Marihuana Control, Is—Is De Minimis Appropriate, Your Honour?"

A Right.

Q That's your article?

A That is.

MR. CONROY: And my friends, and for the Court. An extra copy there as well.

THE CLERK: This should be marked.

MR. CONROY: It's going to be part of our Brandeis material, so we could mark it.

THE COURT: All right. As Exhibits—

MR. CONROY: It's in the—yeah, it's in the same category as my friend's book.

THE CLERK: Exhibits—

THE COURT: Proper.

THE CLERK: Proper?

THE COURT: Yeah.

MR. CONROY: So that would be Exhibit—

THE CLERK: 7.

MR. CONROY: 7?

EXHIBIT 7 - DOCUMENT

MR. CONROY: And the other one is an article by—I don't know if I've brought enough copies of this one, but an article by Michael Bryan, "Cannabis in Canada, A Decade of Indecision." Got one for my friends, if I'm going to give the Court two, and that would be Exhibit 8.

EXHIBIT 8 - DOCUMENT

Q Mr. Bryan was a—one of the main researchers for the Ledaine Commission as I understand?

A Yeah, I—I know that he was a researcher. I don't know of his precise role.

Q Okay.

A I—I know that he was a researcher with the Ledaine Commission.

MR. CONROY: This would be a convenient time then, Your Honour.

THE COURT: All right. Do you wish this witness back at one-thirty as well?

MR. CONROY: Yes.

THE COURT: Fine. We'll take the lunch hour break.

(WITNESS STOOD DOWN)

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

NEIL THOMAS BOYD, recalled, testifies as follows:

THE COURT: You are still under oath.

A Yes. Thank you.

THE COURT: I'd remind you of that. Thank you.

EXAMINATION IN CHIEF BY MR. CONROY continuing:

Q We were still going through the history when we took the break and at the break we filed as Exhibit 8 a paper by Michael Bryan. You're familiar with that paper, Professor Boyd?

A I am, yes.

Q You have a copy of it there? Yes. Now basically this paper, as I understand it, deals with the period from 1969 through to 1989, is—is the ten years that he's referring to, or thereabouts.

A Or '79.

Q Sorry, '79 to '89.

A '69 to '79.

Q Is it? Sorry, you're right. Published in '79 covering that period from the first change in the law that we talked about after the Single Convention, and that's indicated at page 172, and I think I said incorrectly that the penalty for summary conviction was five hundred dollars or six months or both. It's indicated there that it was, in the—in the third paragraph on that page, a thousand dollar fine, imprisonment for six months, or both, for a first offence.

A Right.

Q So basically on that page we have the situation as it stood in '61. In the next paragraph the change in '69. He then comments on some changes in use thereafter in that next paragraph—paragraph on page 173. You see that? So he seems to be attributing an increase in simple possession convictions from 1969 to 1971 to this hybridization, the—the provision that they could proceed in a less serious way against simple possession. Do you agree with that?

A I don't know that there's any evidence for that. I would first make the distinction between possession convictions and use. We know that possession convictions peaked in about 1975 in terms of rate per hundred thousand and we know that use of marihuana peaked in about 1979. So a high rate of possession convictions may be quite unrelated to a relatively high rate of use. For example, I mean the most striking point I can make here is that since 1979 there's been a rather rapid decline over time in terms of possession convictions, but there's no evidence to suggest that there's been a corresponding reduction in the rate of use of cannabis, and in fact in the last five years between 1990 and 1995 there has been an increase in rates of use. Still not to the point of the 1979 levels, but—but nonetheless it's quite clear to me that rates of use and

possession convictions are somewhat independent of one another.

Q Because he then goes on to deal with the—the next change that occurred in '72 after Ledaine was tabled, and you referred to this this morning, the absolute and conditional discharges—

A Right, and mistakenly—

Q -- and he—

A -- noted that John Monroe was the Justice Minister. In fact it was Health Minister.

Q But he's quoted there with respect to that introduction—or that amendment?

A Right.

Q And then he goes on over on the next page to explain in more detail the Criminal Records Act, and then towards the bottom of page 175 Mr. Bryan suggests that the introduction of that amendment, while discharge has only accounted for about ten percent of the sentences between '73 and '77, he nevertheless attributes the—to the amendment the increase, you'll see at the top of 176 --

A Right.

Q -- an increase in convictions from twelve thousand in '72 to twenty-nine thousand in '74. What would you say about that?

A Well, I would say that he doesn't have evidence from which he could draw such a conclusion. He writes that like the Narcotic Control Act amendment in '69 the discharge provisions had a profound effect on the public's perception of the potential harm of cannabis. My guess is that very few members of the public even knew of the existence of the discharge provisions in '73-'74. You know, you ask Canadians about various political leaders, political events and—and typically you get a fairly substantial range of non—non-responses or—or a lack of awareness. So I—I—again I don't think that there's evidence that these discharge provisions had any effect on public perception of the potential harm of cannabis.

Q Because as I understand your evidence you're saying that whether people were aware of those changes or not, the use appeared to plateau around 1979?

A That's right.

Q For a period of time?

A Yeah, I—I don't really—I don't think the law has had much impact on rates of use and I think you can see that most clearly by looking at the American jurisdictions that have decriminalized and—and comparing those jurisdictions with jurisdictions in the U.S. which have not decriminalized and—and you do see changes in rates of use in the U.S. and Canada over time from 1965 to the present, but those rates of use are quite independent of changes in the law. That is to say in both Canada and the United States you see an increase in rates of use from 1968 to '79, of falling off during the 1980's, and an increase during the 1990's. You see exactly the same kind of thing in the Netherlands where you've had defacto legalization since 1976. You see the same kind of trend. So there's something cultural going on quite independent of the impact of the law.

Q And if I understand you correctly too, you're saying that we have use statistics that may be fluctuating—

A Right.

Q -- but on the other hand these relate to convictions. So presumably many other factors go into determining—

A Right.

Q -- the conviction rates, such as maybe increased law enforcement or any other number of—

A There's—there's absolutely no doubt that law enforcement strategy in relation to cannabis is very different today from what it was in 1967.

Q Could we—could some of these increases be easily attributed to that? Suddenly you have a summary conviction option instead of indictable and suddenly an increase in possession?

A It's possible, but again I—I—I don't—in this article he hasn't provided and I haven't seen any good evidence to suggest that that's the case. It—to some extent my—my

best guess is that it's a mix. It's a reflection of increased use and it's a reflection of—of law enforcement activity. If anything, actually, you look at law enforcement initially was—had very much a get-tough approach to—to cannabis consumption, and that didn't really moderate substantially until the late '70's, early '80's and has continued to moderate, in my view, since that time.

Q All right. After the introduction of the discharge provisions, which I believe you said in evidence were specifically brought in in relation to marihuana, that was the—the focus at the time?

A Well, the—yes, I think the quote here from John Monroe makes some note of—of cannabis at the time that—

Q Yes, in the first paragraph.

A -- in response to the Ledaine Commission's cannabis report.

Q So the next step after that was S-19, the Trudeau government bill that was introduced in the—in the senate in November of 1974?

A Right.

Q Tell us a bit about that? What was—what was that all about?

A Well, it was an attempt to reduce penalties associated with cannabis possession and to remove some of the disabilities associated with—with a criminal record, but certainly fell far short of say decriminalization of—of possession of cannabis.

Q Technically the change was to shift it to the Food and Drug Act from the Narcotic Control Act?

A Right, but—but not—

Q And also—

A -- not to treat it as—as, for example, amphetamines are treated, under that category of controlled or restricted drug, but I get the two mixed up. I—I think it's a controlled drug.

Q Was there going to be a special schedule for cannabis in Food and Drugs?

A No, I don't—I don't think so.

Q It's indicated in—

A I'd have to have the—I'd have to have S-19 in front of me to be able to recall specifically, but—but in any event the point was I guess that—that in—in relation to that bill, it did—it did die on the order paper in the senate and it—there were some attempts to—to—to limit the criminal record-keeping provisions, but as Bryan has pointed out in—in—in this article, a person charged with or convicted of an offence of simple possession shall be deemed to be charged with or have been convicted of an indictable offence and therefore there was in any event to be record-keeping.

Q So similarly to the introduction of the absolute and conditional discharge and the political pronouncements that this would result in no record, when the reality was that the Criminal Records Act was changed to provide that you still got a record, here an attempt was made to say that if you're convicted of simple possession you're deemed to be granted a pardon under the Criminal Records Act or something along that line?

A Yes.

Q But at the same time another provision was introduced that deemed it to be an indictable offence, is that what you're saying?

A That's right.

Q And so the person would end up with a record in any event, or certainly be identified as a criminal pursuant to the Identification of Criminals Act?

A Right.

Q So you'd be fingerprinted and photograph for it, but you'd be deemed to have a pardon?

A Right.

Q Is that—that was what was proposed?

A There—yeah, and—and one of—I think that was one of the reasons that the bill died on the order paper. It was

very confused by any—by any person's standard, whether you were in favour of the status quo or in favour of—of greater liberalization with respect to the law. It was a confused piece of legislation.

Q And the penalty proposed for a first offence was a five hundred dollar fine and only in default of payment imprisonment for three months. So there was no direct imprisonment provision?

A Right.

Q Okay.

A Although, again, Bryan's point in this article is that many people will go to jail in default of payment of the fine.

Q All right, and as you've indicated this bill died on the order paper. So it never went through. What was the next significant historical development after S-19, or can you comment on what sort of happened at that time and—and then thereafter?

A Well, again we're dealing with a period where we have gone from 1966 and having—'67 rather, having a thousand convictions for marihuana possession per year in Canada. In half of those circumstances the people convicted went to jail. By 1975 we had forty thousand people coming before Canadian courts and convicted of marihuana possession, and approximately four percent of those people went to jail. So in the absence of legislative will the judiciary had essentially changed sentencing policy in relation to possession of cannabis. That is, the predominant response became that of a fine and absolute and conditional discharges were options in from anywhere in twenty—I think from twenty to thirty percent of cases during—over that period of time.

So the judiciary essentially moderated—moderated the law during that period. In some senses this was perhaps only practical and not motivated entirely by—by considerations as to the intent—inadequacy of the law. On any given day in 1975 there were twenty thousand Canadians in jail if—for a wide range of offences. If we as a society had wanted to continue to incarcerate half of all people convicted of marihuana possession we would have had to double the jail capacity in Canada in order to do that, and clearly that was not something that even the most devoted adherents of criminalization could subscribe to.

Q Was there any evidence during this period, up to S-19 and shortly thereafter, of any type of public health problem that was apparent?

A Well, I think—I think what happened during the late ‘60’s and early ‘70’s is that it moved from a situation in which probably less than, you know, one half or one tenth of one percent of Canadians had any knowledge of—of cannabis and—and of its effects to a situation by mid-1970’s where probably the majority of Canadians under the age of thirty and possibly even under the age of forty by that point had had experience with marihuana, and at—and at that point I think anybody who’d had any experience and who’d read any—anything about the health consequences knew that there were some risks, albeit small, associated with—with smoking. I mean, if you smoke tea leaves there are respiratory consequences and—and so—so—and there was a great deal of literature at the same time. There was talk of the so-called "A" Motivational Syndrome, there was talk of dangerous to the immune system, there was talk that marihuana was the stepping stone to harder drugs. All of these arguments, I think, became part of our culture during that era.

Q There were all these arguments, but were there any cases, examples, of some sort of actual public health problem occurring in Vancouver, for example?

A I mean—no. I mean, if one looks at empirical data as I’ve done in the book "High Society," we have thirty-five thousand deaths a year from tobacco. It’s clearly a severe public health problem. We can’t find deaths from cannabis. I imagine there are a few related to impaired driving possibly or maybe in some very extreme circumstances one might find lung cancer, but again even those who are devoted to uncovering these kinds of connections have been unable to uncover such connections. So—so if you’re asking me was there a public health crisis in relation to cannabis consumption, no. I mean, I might situate it in the same realm as—as, you know, consumption of chocolate, and—and it might fair favourably in that context in terms of public health risk.

Q The active ingredient in chocolate, do you happen to know what that is?

THE COURT: I’d really like to leave chocolate out of this.

MR. CONROY: There’s a—

THE COURT: It’s been one of my favourite substances.

MR. CONROY:

Q Well, something that I notice though in—in—in somebody's C.V. here that contained the word "theophylline" overdose. Do you know if theophylline is the active ingredient in chocolate?

A I do know that you can overdose on chocolate covered coffee beans.

THE CLERK: (indiscernible) -- sorry.

MR. CONROY: T-h—T-h-e-o—

THE CLERK: T-h-e-o—

MR. CONROY: -- p-h-y-l-l-i-n-e.

THE CLERK: Thanks very much.

A But I—but I guess the simple answer to your question, leaving chocolate aside, is that there didn't seem to be any major public health concern around cannabis consumption. Most of the concerns in that era, '67 to '75, were—were fundamentally moral concerns about the fact that young people were violating this law, and there—there—you do get admissions to—the occasion admissions to hospitals, people who are experiencing panic reactions from cannabis use, and it—what's interesting about that, and this is much better documented in American literature, but what you have from the—from the period 1970 through to about 1980 is just a massive decline in the number of these sorts of hospitalizations. So in a sense they were a direct reflection of what the culture was telling you about cannabis, and in the early—late '60's and early '70's there were very much mixed messages about cannabis. People who were very concerned about it were telling you horrible things about what might happen if you use cannabis, and so some percentage of people if they experienced reality in a slightly different way as a consequence of consuming cannabis became quite anxious and panicked and—and would go to emergency facilities saying that they were—you know, something terrible was happening—happening to them. That gets interpreted in a different way later in the decade as -- as cannabis becomes more a part of the culture and as those sorts of extreme understandings of the impact of cannabis are—are ultimately dismissed.

MR. CONROY:

Q Well, bearing in mind the—the evidence, I mean you told us about the kinds of things that Emily Murphy said back in the period 1923 in terms of people going insane and—

A Right.

Q -- and reefer madness in terms of people resorting to violence and shooting people as—as a result of taking marihuana, that sort of menace, insanity, mental health and—and medical health, beliefs in the early period, and

then we've had Ledaine in 1972-73 that recommends decriminalization of simple possession—

A Right.

Q -- and from what you've told us a moment ago I take it no apparent change between then and up to S-19, '76-'77 period. Now if we take all of that evidence, or the beliefs versus what seemed to be apparent, was there anything going on at the time to elevate this issue to do with marihuana to something of a national type of epidemic or a national concern of some kind that would warrant the full force of the federal peace, order and good government power, or criminal law power, something like that in—in the—in the sense of some social problem that was emerge—

A I think—I think if one looks at the literature of that day, one sees a sense among some that there was a kind of—kind of crisis around marihuana and around young people and—and I mean it's reflected in other kinds of events of that era, the Vietnam War and "tune in, turn on, drop out." You've got Timothy Leary (phonetic) advocating use of marihuana and a number of, you know, other potentially more problematic psychedelics or—or certainly more—more potent psychedelics. So in that—in—if you look at it from that vantage point you can say, well, you know, there—there was a kind of a crisis around marihuana use and what it meant during that era. Was—was there anything that—that—during that time that ought to have led people to believe that marihuana was—indulging in marihuana use was somehow immoral? No. Outside from the fact that it was illegal, no. Was there anything that would suggest that we were undergoing a public health crisis as a consequence of marihuana use? No. We ought to be much more concerned in fact about the fifty percent increase in alcohol consumption per capita that occurred during that decade between 1966 and 1975, and we were almost blind as a culture to that reality at the same time that—that article after article in the popular press derided marihuana for its various ills.

Q So what I'm trying to get at is, I mean, we know that most of the health concerns or health issues appear to be addressed by the provinces in terms of hospitals and any standard medical issues that come up. So based on your last answer I take it there was nothing to elevate it into a—a public—from a public health perspective, I'm talking, nothing to elevate this into some big national problem medical health-wise?

MR. DOHM: Excuse me a minute. Just before the witness answers, perhaps my learned friend can help me by indicating which part of the qualifications cover this legal type of opinion.

MR. CONROY: Well, I'm talking—I'm trying to determine the evidentiary basis in terms of the changes in these laws, the history of the change in the laws, which relates into use and distribution of the particular drug at the time. I'm trying to determine if there was something—some public health thing that was driving this history and formed a basis for some of these things. I don't know if that satisfies my friend.

MR. DOHM: I'm not sure that it does. I have no problem with my—with the witness giving evidence of—of things upon which—even history, because that seems to be related to what he's doing, but we are now at a point where he's being asked whether or not there was a justification for the introduction of the law, and—and that goes beyond setting a factual historical foundation and gets right into the issue that is before Your Honour now.

THE COURT: I—I—I—

MR. CONROY: Well, I understand—sorry.

THE COURT: I think your—your friend may have—have a point. When you first asked this question you also asked him about the peace—referred him to the peace, order and good government clause which caused me to raise my eyebrows as—as to whether we weren't getting into argument at that stage—

MR. CONROY: I'll—

THE COURT: -- through the witness. Whether or not there was a national health problem might be a simple evidentiary issue that—that he could—you could canvas.

MR. CONROY: Well, that's what I'm—I'm trying to get at, and maybe I'm putting it into the argument and I shouldn't be doing that, but I'm trying to determine if from your—from the witness' historical review of the history and the changes in the laws if there was a change in the health problem associated with those changes.

Q Was there a—a national health problem in the beginning? I think you've told us there wasn't based on your examination of the data. So I'm trying to determine did that change? Was there a national health problem at

some other point during these changes up until this time in '77 that—that is related to the changes in the laws?

A I—I don't think so. You know, I think that cannabis in the context of legal and illegal recreational drugs is—is probably the most benign of those currently in use and there were more people using cannabis in 1979 than in 1967, but there's no good evidence that I can find to suggest that—that there were major health problems or—or any significant health problems within the culture as a whole that arose from this increased use of cannabis, and of course since 1979 there has been a reduction in the use of cannabis.

MR. DOHM: It's in now anyways, Your Honour, but I won't make anymore out of it until it comes time to argue.

THE COURT: All right.

MR. CONROY:

Q All right. After S-19 there was some further comments made that appear in Mr. Bryan's paper at page 181. What—what is—what actually started happening after S-19 or still in and around the time of—well, just at the time of the demise of S-19, I suppose, in '76?

A You're referring to the comment that Pierre Trudeau made to students I think it was?

Q Well, that—was that the next sort of historical—

A I don't know how important that was.

Q -- development?

A I mean, it indicated more—it was more a reflection on the Prime Minister and his attitude towards this subject, than it—than it was any kind of important marker in relation to the law or policy relating to cannabis.

Q Well, he deals—he goes on to deal with the statistics of what was happening at the time at the bottom of that page—

A Right.

Q -- and onto the top of 182. Does that accord with your investigation?

A Right. I mean, this was the period that, you know—he's writing about a decade in which cannabis consumption climbed significantly and in which more pointedly from his perspective prosecutions increased dramatically between 1966 and 1978.

Q And he—he deals with—there's a section that deals with the Supreme Court of Canada decision in Houser (phonetic)?

A Right.

Q But then he goes on, I—to deal with various statistics in terms of costs and prosecutions and so on, 185 through 187, I believe, is that right?

A Right.

Q Certainly 185, 186.

A Right.

Q Now after S-19 then, and that was '76, thereabouts, were there any further developments in the next decade, '76 to '86?

A In the Throne Speech in 1980 the Liberal government of Pierre Trudeau promised to soften penalties associated with cannabis use as—as part of that session.

Q Did anything happen?

A No. I've conducted a few interviews with—with people who were ministers in the Trudeau cabinet during that era. The Solicitor General, Robert Kaplan (phonetic), indicated in one interview that when they got into cabinet they found that there was simply too much division to act and Trudeau took the point of view that there were more important things, the Constitution and so forth, to deal with and so given the division it wasn't appropriate to follow through on that particular promise.

Q So that was, what, 1980 to 1985?

A Yes—or '80 to '84, I think.

Q '80 to '84, and what about after '84, the next ten years?

A We have a bill—the next bill really is C-85 which is a Conservative government legislation in 1993, was it? I—I—I'm sorry, I don't have the—the date—

Q The last few years, in any event, was the—the latest—

A But what's interesting about both C-85 and C-7 is that they so closely resemble one another, C-7 is the legislation now before the senate, and in the case of C-7 this is a piece of legislation that's contrary to the policy of the Liberal party and it's a piece of legislation that did—like C-85, didn't originate within caucus or within the cabinet it appears, but originated within the—within the unelected bureaucracy, the—all of the evidence seems to point in that direction, and it—it's said to be an attempt to tie Canada to U.N. conventions in relation to narcotics, most notably I suppose the 1988 convention, and to—to—to modernize the—the two existing statutes, the Food and Drugs Act and the Narcotic Control Act, and to bring them into one, in the context of C-7 the Controlled Drugs and Substances Act. I think C-85 the—the terminology was the Psycho—Psycho-Active Substances Control Act. C-85 died on the order paper and C-7 has passed the House of Commons with some amendments and is now at the senate.

Q And then so that's the last—the last development in our historical legislation anyway—

A That's correct.

Q -- up to the present time, and C-7 is at the hearing stage in the senate, so it's in the last stages of whether it becomes law or not in Canada?

A That's correct.

Q Okay, and that bill does not decriminalize simple possession of marihuana, is that what—

A No. In most important respects it leaves the law as it is in the Narcotic Control Act. It provides for imprisonment for both summary—for summary conviction offences.

Q Do you remember if it increases the penalty on summary conviction?

A I believe that the penalty is retained as—as is.

Q So when you've investigated this history and the different changes over time right up to the—the current, are you able within your expertise to comment on what appeared to be going on in relation to simple possession? Is there anything significant—

A Well—

Q -- arising out of that history?

A I think that since 1967 both the police and the judiciary have essentially altered the nature of the law in practice in the absence of any legislative will beyond, of course, the '69 amendment to the Narcotic Control Act.

Q And that—

A And I say that because if one looks at sentencing from '67 until the present, one sees this—this trend away from imprisonment for simple possession towards some use, but not—not substantial use, of the absolute and conditional discharge provisions. The norm has emerged as a fine in response to cannabis possession. With the police, and—and this is something I suppose that I've gathered a number of different ways over time, mostly from talking to police and being involved in different contexts with police officers, it's—it's pretty clear that police have a different kind of approach to cannabis today than they did twenty-eight years ago, and in fact if you—if you—if you talk to police officers now and—and if you listen to people who have come into contact with the police in relation to cannabis, you find that there's a real range of police response. Some police officers, whenever they find cannabis, will inevitably charge. Others will confiscate the drug, but—and—and warn the person, but not charge. Others will try as much as they can to turn a blind eye.

Give you an example of a—a group of people playing baseball and the police officer in this particular community was involved in the baseball game and a person who was playing catcher had three joints in his pocket and at one point is diving for the ball and these three joints fell out on home plate and the police officer was at bat, and so his—his response was "Come on, get that out of my sight. You know what the rules are." So he—"I'm sorry, I'm sorry," very apologetic. Takes the joints, put them—puts them back in his pocket and the game goes on.

That kind of thing is much less uncommon than we think and so what it has created in a sense is this arbitrary enforcement of the law where in some circumstance—it—it may not be entirely arbitrary in the sense that police will tell you "Well, look, I mean, if the person is decent to us and—and isn't a problem in other ways, we'll leave them alone," but what that suggests is that

this is kind of the new vagrancy offence. I've—I've heard one police officer say "Well, you know, we were arresting this pimp and"—or "We wanted to arrested this pimp ..." rather "... and he took out his cigarettes and I noticed as he opened his cigarettes that there was a joint stuck right beside the cigarettes. So it was perfect. We had him, you know. We had him on the—on the pot charge," and—but—but they weren't interested in the marihuana particularly. They were interested in—in his pimping activities, which seems understandable enough on some level, but—but—but they were using the marihuana charge as a way of getting at the pimping activity, and—and again, I mean, it—one also finds police officers who will do what they can to avoid coming into contact with marihuana and they—they really will try to turn a blind eye to it.

So you've got this differential enforcement to some extent based on the individual approach of the given police officer and the constraints of his or her job. You know, the other side of the coin is that marihuana busts, like many other busts, can produce overtime and so there's an economic incentive to make -- to make these busts and—and to get—gather convictions, and of course in some circles this is seen as evidence of having done a good job to—to be able to make marihuana convictions and convictions that stick in court.

Q Would you in doing this type of research speak with ex-police officers, people who used to be in the enforcement end of this type of law who then no longer are?

A Yes, I have, yes.

Q And any—anything arising as a result of that type of research?

A Again, more—in some of these circumstances where the police officer's no longer involved with the force they've indicated that—that marihuana use is—is one of those areas that they were most uncomfortable with in terms of policing because we've reached a situation in Canadian history where most of the people who are police officers now have—have grown up with—with—with marihuana and—and in fact I had the chief of the drug squad, the head of the drug squad, a fellow by the name of Don Keith (phonetic), who's—he's retired now but he was head of the drug squad for Vancouver, to my class and he was explaining that one of the things he asked recruits for the drug squad is whether or not they've ever used marihuana, and I said "Oh, so why do you do that?" you know "To weed out the ones who've used marihuana?" He said "Oh, no, no, no. I assume that just about all of them have used. I—I use it as an integrity question. I want to determine whether they're honest in responding."

Q Also in doing the research, and particularly in terms of sentencing and what's gone on in sentencing, would you look at cases to see what the fact patterns are? Not in terms of—of simply how the—what amount the person had or—or where they had it or that sort of thing, but as to whether there was some other event that went along with the person's possession or use—

A Well, what—

Q -- some health event or—

A Yeah.

Q -- violent event or—or—

A One of my—

Q -- driving event?

A -- M.A. students in the mid-80's spent most of one semester just observing provincial court criminal division in Vancouver, and specifically looking at possession convictions, and found that what—it was kind of interesting to see that—that public use was almost universally responsible for arrest and conviction, which from my way of thinking is—is really what the—where the law ought to be directed, but it need not be criminal law, of course. I mean—but in any event, I mean it's—

Q When you say "public" use, you mean out in public?

A Out in public. You know, you—you look at the circumstances of the case. He would come back and say, well—he would—he would describe, and he described it in his thesis, the various cases that he heard, you know, "Lit a joint in a restaurant" or "Was stopped by police, police noticed"—"was driving, stopped by police, police noticed the smell of marihuana in the car." That's very common as a—or "Walking down the street smoking a joint," "Police noticed the smell of marihuana as I was walking down the street smoking a joint." It's that—so it's—the police don't really—I mean, my—my sense of things now is that—that as opposed to say twenty-five, thirty years ago, where police would go out of their way to try to establish a possession conviction, today police come upon it. They don't go searching for it, at least not in relation to possession. They will certainly go searching for it in relation to distribution, but they're not likely in most cases to search for it in relation to possession.

Q Did any of these cases that were coming before the courts, and again simple possession, involve somebody who could be described as a—a person who was being very sick in a health sense from this use and consumption?

A No.

Q A sickness—

A They—they may have been sick, but I—

Q Well—

A I don’t think it had anything to do with cannabis.

Q Well, that’s what I’m trying to see, was there anything associated with the cannabis in any of these cases that related to their health?

A No.

Q Was there anything associated with the cases that related to anybody else’s health that you know of?

A No. I mean, there—there is talk of course of something like "A" Motivational Syndrome, the notion that—that people who smoke a lot of marihuana suffer from "A" Motivational Syndrome as—that is that marihuana produces a—an effect whereby they are not motivated to do anything and insofar as marihuana is a sedative it’s—it has an impact, I suppose, which in some circumstances is going to reduce your output, but I—I don’t think that there’s any evidence of a syndrome, of a pathology of—of "A" Motivation, any more than, you know, somebody who gets up in the morning and starts drinking is going to have "A" Motivational Syndrome. Somebody who gets up in the morning and starts taking Benzodiazepines is going to have an "A" Motivational Syndrome. It’s part and parcel of a psycho-active drug that has a sedative effect.

Q All right. Well, is there any other evidence of any kind from these cases and from this research indicating health harm as a significant factor, whether simply associated with the facts of the case or as a factor that the Court may have taken into account as an aggravating or mitigating circumstance in sentence?

A Well, yeah, I don’t—I mean I don’t want to present the point of view that—that marihuana is benign, that it

has no health consequences. It probably has fewer health consequences than, you know, eating french fries twice a day. You know, smoking one joint a day equal—I mean I don't know how you calibrate these things, but—

MR. DOHM: Excuse me—

A -- in terms of the evidence—

MR. DOHM: Excuse me—excuse me a minute, Professor Boyd. We're getting into nutrition now, Your Honour.

MR. CONROY: Well, I'm—I'm not asking for an opinion -- his opinion on it. I just want to know if in the cases he's researched anything like that's come up.

MR. DOHM: The answer was at least getting well beyond the question asked.

THE COURT: Let me go back a step. I'm a little unclear as to precisely what research we're referring to. I—I know you've referred to a student who did a research study.

A Research on possession convictions, yes.

THE COURT: Is that the study that—

A Well, not in terms of health—I mean, in terms of health my—my research is not firsthand. I—I'm not a physician. I—I'm not trained in—in that particular area. I've read widely in the area in relation to health—health effects and—and can give opinion evidence in relation to health effects.

THE COURT: Well—

MR. CONROY: No, but that's not what I was asking.

THE COURT: I want to go back even—just to clarify some of your earlier evidence. You were talking—you were asking questions about whether in these particular cases there was any indication of a health problem, and I under—what—what you're looking for, not whether or not there was in fact from a medical perspective a health problem, but whether there's anything reported in the cases or claimed in the cases?

MR. CONROY: Either way. Reported or claimed or—or—

THE COURT: My question is was the study directed towards that issue? Was that a factor that the student was looking at?

A No, the student was—the study that I'm speaking of with the M.A. student, that—that student was trying to

determine the circumstances in which marihuana possession convictions occur, or arrest and conviction, because it seemed clear that a very small percentage of marihuana users end up in—in criminal courts charged with possession. So—so the research question was, well, what characteristics can we ascribe to people who—I mean in some sense that research is—has been done in part, called "Cannabis Criminals" published by Addiction Research Foundation, written by Patricia Erickson (phonetic), looks at those kinds of characteristics, the characteristics of people in court charged with cannabis offences. We were interested in a more focused question, that of what are the circumstances in which arrest and conviction for cannabis possession takes place.

THE COURT: So that particular research was devoted—

A Solely to that issue.

THE COURT: -- solely to that?

A Yeah.

THE COURT: I want to go back even one further step, if I may, to—to your comments about enforcement of the law and—and the different approaches that—that you've discovered that police may take. Were there studies involved in that or research projects?

A No. I think that that—in fairness that's more what I have gathered from, you know, seventeen years of—of—of teaching and I have a lot of police officers in my classes, I—and—and working with police officers in different projects. As I indicated earlier, I—I did a project for the Solicitor General's Ministry looking at the criminal diversion of illicit drugs and I've been involved with Rod Stamler (phonetic), who's for—former head of the R.C.M.P. Drugs Branch, in a number of different projects, some of them television, media projects, some of them research projects, the—the Solicitor General—the criminal diversion of illicit drugs project, and in the course of—of my work I suppose over the last seventeen years I have had many conversations, discussions with people in policing and people who are subject to police control who I have talked to at some length about the policing of cannabis.

THE COURT: Okay. Let's go back to health harm. The—the question, I think, focused on—on cases in—in court and whether there were—

A Obvious—

THE COURT: -- instances where—where the user either through counsel or—or—or personally or even Crown counsel was pointing out some kind of health problem related to the use of—of marihuana. Do you have studies of that or that—of cases before the courts?

A Not that I'm aware of I—no.

THE COURT: All right.

MR. CONROY:

Q All right. So in the studies on sentencing and what the courts were doing in sentencing, did these researchers not look at what the actual facts were in the front of the Court to determine why the sentences were as they were and what aggravating or mitigating factors might have existed?

A I mean, one can look to (indiscernible) Davis (phonetic) or Ruby (phonetic) on sentencing and get some sense of the relevant factors insofar as, you know, what—what factors are aggravating, what are mitigating in relation to—

Q I'm trying to determine in—in those investigations as to what was going on in the courts and why the courts were doing certain things—

A But I'm not sure what you mean by "in"—in which investigations?

Q Well, any research to do with what the courts were doing in terms of sentences. Were these researchers having regard to those types of facts, whether or not there was a health issue associated with the facts of the particular case that resulted in a penalty one way or the other, or was that an issue?

A It wasn't an issue. It's not something you typically see.

Q You see, I'm just assuming that if there's a public health problem that something would have been seen in these cases or that some researchers would have looked into this. Has—has your criminology department at S.F.U. or do you know of any research in Canada that has said, well, there's supposedly a public—a major public health issue, let's see what the facts are that are coming out in the court and what the Court's doing and why it's doing it and whether a public—

A Well—

Q -- health factor is—

A Yeah.

Q -- taken into account?

A I suppose I—I should say that I don't really believe that public health is at the basis of the law here. I mean that's the rhetoric that's used to justify the law, but I don't believe that that's what the law is all about.

Q All right. Well, and that's sort of what I'm getting at. That's your belief—

A Yeah.

Q -- but the government says that it's a public health basis, or that's one of their—

A Right.

Q -- reasons for it?

A Right.

Q So I'm trying to find out has any—has there been any research into this issue relative to what the courts are doing in terms of sentencing or—

A There—there has—there has been so much research into the health consequences of cannabis consumption that one could spend literally—one could spend an entire career just reading literature that's been produced in relation to health effects.

Q And has anybody ever tied that into what the courts are doing in—in terms of sentencing or sentencing practices?

A No. I think it's a fair comment that—that courts don't generally look to—except insofar as they say, well, Mr. "X" could ruin a great many lives in that he trafficked in, you know, six hundred pounds of marihuana because this stuff—this material has various harms that it will impose on the Canadian public.

Q No, but—but that's in a trafficking case.

A But—but that's—but again to me that's just another piece of rhetoric to be analyzed. I don't—I don't see that as—as a—as a terribly useful statement or—or description of reality.

Q No, but see, Emily Murphy in the beginning gave us the quote of people going insane and—and so on, and I think it was in "Reefer Madness" that people would do this thing and start killing people?

A Right.

Q Now if possessors of the substance, if it does cause them to do these sorts of things, I'm assuming that people in your field of criminology would have gone out and done some research on it to see how prevalent it was; you know, how many people who possess marihuana are going around shooting people, how many people who possess marihuana are—are—are part of some sort of other health problem? Has there been any—any investigation into this or is it simply a non-issue?

A There's—there have been investigations into the marihuana trade and the violence that occasionally accompanies the distribution of marihuana, but I don't think there have been the sorts of investigations to which you're referring.

Q And how do criminology departments decide whether something should be researched or looked into or there should be some investigation? Is it because suddenly there's a lot of stuff in the press about a particular topic, or is it—

A Well, I suppose, you know, there is a basic trilogy in crime of crimes against people, crimes against property, and the so-called "victimless" crime area and—and historically at least criminology departments and—and others involved in some aspects of crime have tended to look at those categories of criminal conduct in—in study, in addition to looking at such issues as sociological explanations and psychological explanations for deviant behaviour and so forth.

Q Let's then go to deal with the question of use and—and distribution. What's the situation based on your investigation and so on say now, and how has it changed over the years in Canada?

A In relation to—to use and distribution of marihuana?

Q Since—yes.

A Well, I guess I've given you some indication with respect to use. We—we've seen this increase—

Q These changes, yes.

A -- from '67 to '79, a slight dropping off, and—and my—my sense is that most Canadians under fifty have at some time or another used cannabis. So we have a—probably a—close to a majority of the population that has violated that particular section of the—of the criminal law. In terms of distribution there have been a lot of changes over time, both in terms of the product itself and to a lesser extent, I suppose, in terms of the way it's distributed. The—the first cannabis had—was very low THC, was what people now refer to as "shake" and it was—it was the dried leaves of the marihuana plant and the—the prices probably weren't all that different from contemporary prices, but certainly the product was very different, and—and marihuana botany essentially, at least in west—in North America, developed during the 1970's so that by the mid to late 1970's the quality of marihuana that was being distributed was—was much better.

But still, if you looked at—if you look at seizures across Canada through the R.C.M.P. Drug Intelligence estimate or if you look at other kinds of information, if you talk to people who are involved in either policing or in the trade itself, there are cultural differences. Quebec has always been primarily a hashish market. British Columbia has always been primarily a marihuana market. The highest rates of consumption of cannabis have typically been in—in British Columbia.

The—up until about 1980 the market was largely one populated by marihuana produced outside of Canada and smuggled into Canada, typically through ships, to some extent through planes, and to some extent on land. That started to change in the 1980's and—and partly it was perhaps because—it's not clear entirely why it changed, but perhaps because the R.C.M.P.—Rod Stamler in 1980 became the head of the Drugs Branch of the R.C.M.P. and there was a directive issued at that time that—that—that the Force would move away from low level distributors to concentrate on high level distributors, and a number of these people were charged and conviction—and convicted, people who were dealing in multi-ton loads, bringing large amounts of—of marihuana into the country.

Now I'm not sure whether it was really the fact that—that they—that the R.C.M.P. were successful in—in importation arrests that was responsible, but in any event sometime during the mid-'80's it changed -- the character of the industry changed from being a -- an import-export business, or basically importing marihuana from elsewhere into Canada, to being a domesticate grow operation, indoor and outdoor, and over the past decade what we've got

is essentially a made in Canada—made in Canada cannabis product where through the combination of indoor and outdoor cultivation most of the product that's now sold in British Columbia at least is domestically produced.

That differs a little if you go to Quebec where it's a hashish market. Hashish is very rarely produced domestically. It—it is, but not for commercial purposes typically, and there—I think again what's striking is you have the same criminal law across the country, but you have very different kinds of distribution networks and—and preferences independent of the existence of law.

So that now we have a situation where—where the price of an ounce of marihuana is—is about three hundred dollars for relatively high quality marihuana. That price interestingly hasn't really changed dramatically in fifteen years. So that if—if anything there's been a deflation in a sense in the price of marihuana over time. Hashish was—was more popular in the—in the late '70's, early '80's and comparable amounts over two hundred, two hundred and fifty dollars an ounce, and the same was true of what was imported in the late '70's and early '80's, which was usually Mexican sinsemilla or sinsemilla from California, again high quality marihuana. That marihuana tended to sell for about two hundred, two fifty an ounce. Today you might pay—could pay up to four hundred dollars, I suppose, for an ounce, but that would be unlikely. It's also sold at street level in grams for about fifteen dollars a gram, which would work out to about four hundred and twenty an ounce.

But a couple of things interest me about this. One—one point is that—that marihuana is about the cheapest high there is of all legal and illegal drugs. An ounce costs three hundred dollars. You can roll about fifty or sixty joints out of an ounce. So your joint costs you five or six dollars. Three people can get high from one joint. So the cost of getting high from marihuana is about a dollar seventy, you know, in contrast to the alcohol high which is somewhere in the ten dollars and up region depending on how particularly extravagant and how completely crazy you might want to get.

So those are some of the changes. I think the most significant changes over time in relation to cannabis distribution being the change from what was an import-export business to a—to a domesticate production industry. In some senses this is positive, I suppose, in that the—the—the benefits of the industry remained with—within the country to the extent that nationalism is a part of this, and—but -- but the other more telling point is that this is obviously not a drug that—that—that people are—are stealing in order to obtain.

It's more—it's more expensive, as I indicated, to obtain alcohol than it is to obtain marihuana, and -- and again if you look at—if you—if you look at use patterns it's—it's not that popular a drug in our culture, although—although as I said it—it's probably fair to say that the majority of Canadians under the age of fifty have tried it at one time or another. Most people don't like it that—that much and—and most people don't—don't continue use.

When I was at Osgood Hall Law School in our graduating class we conducted a survey of—of use among the graduating class in 1977 and we found that eighty-five percent had used marihuana at one time or another and that seventy percent said they were going to continue use after graduation. You know, it's more a spirit of the times or whatever. In fact, I mean if you look at profiles of people's—of marihuana use over time you find that it's concentrated in the eighteen to twenty-nine age bracket and tends to drop off relatively sharply after that.

Q In examining the use of marihuana over this period we've been talking about, have there been any changes in—apparent in terms of health—

A Well—

Q -- that you're—

A -- much is made of—of the increase in potency and it's true that marihuana in 1995 is more potent than marihuana was in 1967 generally speaking, but the potency really didn't begin five years ago or ten years ago, but began close to twenty years ago, the—the higher potency levels, partly from the export market, Thai marihuana, Hawaiian marihuana typically had relatively high THC levels attached to it, and if—and if you look—if you go to the R.C.M.P. drug lab most—the—some of the—some of the cannabis tests out in the twenty-four, twenty-six percent, but -- but most of it hasn't really varied dramatically over the past fifteen years. The—what's on the market, I guess, hasn't really changed dramatically since 1980 in British Columbia.

Q All right, but in terms of the user that's been using this different potency or different marihuana, have there been examples in—as you've been looking into this—

A Well, you find that—

Q -- of the way people use in terms of what the consequences—

A Yeah, I mean, again this is to some extent anecdotal, I suppose, but you talk to people who say, "You know, I -- I used to smoke marihuana and I tried some of this -- the marihuana"—when they say "used to" they mean late '60's, early '70's. They tried some marihuana from the—and they found it just too strong, it was unnerving, but this doesn't—I mean this is a—a common enough reaction to—to cannabis consumption by an uninitiated or an unfamiliar user.

Also pretty clear that people are—are—are smoking less with higher quality marihuana. There is simply no reason to, it would be—I mean as many people have said, it would just be insane. I mean, why would I smoke five joints of this stuff. I can—I can have three tokes of this joint and, you know, it does—does what I want it to. So in—in the late '60's and early '70's people would sit around with this big bag of marihuana. They'd smoke joint after joint after joint because the THC level was so low that the effect was scarcely noticeable other than, you know, your eyes get red and your heart beats a little faster, but apart from that you really don't notice any difference from so-called ordinary waking consciousness.

Now with—the last twenty years with higher quality marihuana the—the down side may be that if an unexperienced—inexperienced user operates a car or other heavy machinery that could be problematic, more problematic than with a lower base level of THC, but you know to some extent there we're talking about a different kind of activity than use itself.

In terms of use itself, I think there's good evidence to suggest that—that people are smoking less and that the primary risk in consumption of marihuana is pulmonary risk and that therefore this is advantageous. At a conference that I was at in Germany last month dealing with cannabis policy, one of—I suppose probably the leading expert in—in the States, Lester Grinspoon from Harvard Medical School, was asked just about this very point about—well, what about the high quality cannabis? He made the point that in fact high—much the same as I'm making now that high quality cannabis has been with us for fifteen years at least and it's pretty clear that the major risk of cannabis use comes from smoking and high quality cannabis use leads to more smoking. So this is good.

Q All right. So in terms of behaviour, manifested behaviour, correct me if I'm misunderstanding you, there doesn't seem to have been any change from back in the early days to the current days?

A No. I mean, you don't have, you know, the Diane Linkletter (phonetic) story or anything like that. I mean it's—people aren't—that kind of problem isn't in existence.

Q And this is true notwithstanding the different varieties from different countries and so on that were coming in at—at an earlier time to the change to where it's mostly home-grown today?

A There doesn't seem to be any health consequence.

Q The—the behaviour of the user seems to be the same?

A And the—the—the behaviour of the user, yes, except insofar as I, you know, talked about people who had at one time smoked cannabis, you know, ten, fifteen years ago, come—come back to cannabis and find—in fact, I

mean I would have to say that most people I know of my generation, and I'm speaking here of people in their early forties, speak of cannabis as something that they—that they don't—what they don't like is—is that effect, the—it creates a certain level of anxiety and it—but they would have—and—and the more potent cannabis produces that reaction more strongly than the—the cannabis of the late '60's and early '70's used to, but they don't consider it, I mean, a—something that's terrible that's happened to them. It's just something that they say.

Q If I understand you correctly, what you're saying there is that the novice, the new user, or the person who may have been away from it for a long time who comes back and tries it, but it—and it's stronger than what they were used to many years ago—

A Right.

Q -- can have that type of reaction?

A Right.

Q But again—

A Exactly.

Q -- correct me if I'm—if I'm not stating your evidence accurately, they still don't see it as a serious thing, as a big deal?

A No. I mean I—I don't know anybody who has used marihuana and alcohol, for example, and come to the conclusion that, you know, marihuana presents us with a more slippery slope than alcohol. You would really worry about—

Q Okay.

A -- if that was the case.

Q All right. Now you've told us a bit about The Netherlands. My understanding is is that you've visited The Netherlands at least a couple of times over the last five years and have looked into what's going on there and compared it to here and other places. Tell us a bit about that.

A Well, the situation in The Netherlands isn't that different in some respects from the situation here. They

have evolved from an export market to a domestic production market. In the late ‘80’s—mid to late ‘80’s the products for sale in the coffee shops were primarily products from other countries that were—were imported into The Netherlands and—and distributed. Now most of what they distribute is locally produced, with the exception of the hashish which, as they say, comes through the "back door" and they talk about the problem of the back door in the coffee shop, the back door problem.

Q All right, but as I understand it the law still exists to criminalize simple possession, but in practice it’s not enforced?

A It’s not enforced.

Q And people can go to these coffee shops and—

A A person can go and purchase small amounts of cannabis at prices that are about seventy-five percent of Canadian prices, or American prices, and can consume the product either in the coffee shop or take it somewhere else and consume it.

Q And I’ve been told, correct me if I’m wrong, that the -- the price has remained much the same because it’s still illegal and you can’t write it off the expenses on your taxes. So the price stays up even though it’s not enforced?

A Well, I think the price stays up in part because The Netherlands is a very—this is a very unusual experiment in The Netherlands. I think if every country in Europe and every country in North America was to have a similar approach, the price would fall. So I think it’s to some extent a reflection of the market "niche" if you like that—that exists in The Netherlands.

Q Now that’s been going on there since, what, ‘76 I think it is?

A Since ‘76, yes.

Q This defacto decriminalization?

A Right.

Q And has there been any—or what—what behaviours, if any, have manifested themselves as a result of this policy?

A Well, it's interesting. I—I mentioned earlier this Osgood Hall Law survey which said that eighty-five percent of the graduating class had at one time or another used cannabis. The comparable law school, I suppose, in The Netherlands is a place, Liden (phonetic), and if you were to do a survey—I talked to a number of people who've been there—if you do a survey of Liden you find extremely low rates of use among the—the students at that law school, and in—in fact it's seen as quite unfashionable in—in many circles in—in The Netherlands to use cannabis, despite the fact that you can—you can go and—and purchase this drug at any one of hundreds of coffee shops in—in Amsterdam and elsewhere.

Q What about the effect on—

A So I—I guess what—what I should say though is that it's very clear that the rates of use in The Netherlands, even given this availability, are—are in fact much lower than in Canada and the United States where you can go—where there are quite significant criminal penalties attached for possession, but I suppose we ought to know, I mean, from the example of tobacco that making a drug available isn't necessarily going to mean that it's more widely used. We've made tobacco more available since 1966 to more people in more circumstances than—than ever before and we've seen a—that in 1966 fifty percent of adult Canadians smoked, and in 1995 twenty-five percent of adult Canadians smoke. So—so the notion that availability leads to increases in use, we don't have really good data to support that notion, and in The Netherlands what you have is what some people would see as an irony, that—that you make a drug available and you in fact have—have lower rates of use than you do in a situation where the use of that drug is criminalized.

Q And just relating that back to something we touched on before, the U.S. States. We've—there's a number of U.S. States that have in effect very minor penalties or almost decriminalization. Eleven states I think it is, is that right?

A Right. There's—there are various structures in place in each state.

Q All right, but out of, what is it, fifty states we've got a large number obviously that still continue to have serious penalties for simple possession?

A Yes.

Q And do we see differences in rates of use between those states—

A No.

Q -- that we know of?

A No, I think—I had made the point earlier that rates of use tend to not distinguish between whether a State has criminalized or decriminalized and those rates, generally speaking, tended to increase from about '68 to '79, to decrease during the 1980's, and since about 1990 have tended to increase once again, albeit not to the 19 -- levels of 1979 or 1980.

Q And do you know what's happened in terms of conviction rates as between those different states, whether in the decriminalized states, or virtually decriminalized states, there's been more convictions for simple possession, or do we have data on that?

A I don't—I don't know.

Q Okay. We touched briefly on—in our discussions on the State of Alaska. Alaska, as I recall, was decriminalized on a privacy basis through a court case many years ago, and that that has changed recently?

A Yes.

Q Do you know—are you familiar with that and what happened there?

A There was a great deal of effort put out by—put forward by William Bennett (phonetic) who was the drug czar in the United States during, I believe, the Reagan and Bush eras, but in—in any event he—he and others put a great deal of time into the Alaskan recriminalization movement and whether or not—I mean, it was successful, but—but the margin of—of victory was very small, fifty-three to forty-seven percent in favour of recriminalization. I'm not at all clear as to what has happened in Alaska since recriminalization. I would be very surprised to find that there were any changes in rates of consumption as a consequence of—of recriminalization.

Q Do you know what they did there in terms of the penalties? Is it—

A No, I don't.

Q -- a significant change, or do you know?

A I don't—I don't—I don't believe it's a significant—that the penalties are—if I recall, that the penalties are not as significant as in many other states.

Q Okay, but we filed at—at the noon hour the paper you did in the Criminal Law Quarterly, 1982, "The Question of Marihuana Control, Is De Minimis Appropriate, Your Honour?" Exhibit 7. That paper reflected the state of your knowledge presumably up to that time, 1982, and in—in that paper you did do towards the end a comparison between Oregon and Washington as I understand it?

A Right.

Q Comparing Washington State where there was a regular criminal penalty—

A Right.

Q -- and Oregon which was one of the earlier states, I believe, to have—

A It was the first, I think.

Q -- the first one—

A Yeah.

Q -- to defacto decriminalize?

A Yeah.

Q It's—the details are all in your paper, but just generally what did you find there? What was the—

A I'd have to find the—

Q You have to refresh your memory?

A The truth is that I wrote it thirteen years ago and I -- I can't recall the specifics.

Q Okay.

A Yeah, I—I do remember the—that in Oregon there was—it was an interesting coalition of interests. A—a very conservative hog farmer from rural Oregon was

really the key person within the—a veteran of the Republican caucus and he in a—in a long speech that drew significant applause he—he put on his desk caffeine, tobacco, a bottle of beer, whisky, and a marihuana cigarette and he argued about hypocrisy, about prohibition, and ultimately carried the day and -- and I think in some sense it was the charisma of this one individual that—that led to the change in the law, where they said okay, you know, in the short term he wasn't able to carry it, but in the—in the long term, that is in terms of his first appearance, but ultimately it was his charisma and his—the force of his argument that—that led Oregon to decriminalize.

Q I guess the interest is whether or not having—

A I'm not sure what you want me to get at here.

Q Well, having once staked—you know, here we are in British Columbia, Washington's our immediate neighbour to the south, and past that is Oregon. So you had one state that had reasonable—virtually decriminalization—

A Right.

Q Another one that's fairly tough, and then us up here in British Columbia. When you looked into Oregon-Washington, with the two different approaches, were there different problems in the different states because of the different approaches that were manifested in terms of behaviour either because of the decriminalization in Oregon or people from Washington flocking to Oregon or—

A No.

Q -- or—or others moving away from Oregon for fear of a problem—

A No.

Q -- for their kids—

A No, I think—

Q -- or anything like that?

A No, I mean, probably the—the key is that in all of these states that have decriminalized possession they've maintained penalties in relation to distribution. So in—in most important respects there's—there's nothing visible

that would alert a person within the state or a tourist or a visitor to any kind of significant difference from one state to the next.

Q Okay. Now let's go back then to Europe. We've talked about The Netherlands and its policy since 1976. Do you know from your research what has happened there, and particularly looking then at surrounding countries to—to The Netherlands?

A Well, there—there were initially, and still are to some extent, concerns raised about the Dutch policy and about this fear of—of infiltration of cannabis beyond Dutch borders, but if one looks to the last five years one sees that in all of Europe there—there's very little interest in following the American "get tough" lead in—in relation to drugs, particularly cannabis. The German Constitutional Court determined that—that their—that criminalization of possession is unconstitutional. Italy, Spain, there have been similar kinds of movements. One doesn't in any sense get the impression within Europe that—that the time is right for a war on drugs. I mean, quite the contrary. They—they look to the so-called harm reduction movement as a model for responding to the various problems that drugs present us with.

Q The decision of the German Constitutional Court, was that just last year in 1994?

A I believe it was, although it could have been 1993.

Q And in Italy do you remember what the developments were there or when they occurred?

A It was—I'm not—I can't—not with enough specificity to be of any value.

Q Okay. I have a note from some of the material that in 1993 there was a vote to end the penalties for drug possession in Italy. Does that refresh your memory or accord with your—

A It does, but I'm not—you know, from that vote I'm not sure of what the consequences are and I'm not sure of the specifics of the vote and of the meaning of the vote.

Q Okay.

A I think what's interesting to me is just how Europe as a whole seems to be very different from North America in terms of the approach that it's tended to take and—

Q You mentioned Germany and Italy—

A -- highlighted by of course the Dutch approach.

Q -- Germany, Italy, did you mention Spain?

A Yeah.

Q Do you know what the situation is in Spain?

A As early as 1980 there was decriminalization of cannabis in Spain, small amounts and such.

Q And Switzerland, there were some recent developments there?

A I'm not familiar with the specifics.

Q So again looking at The Netherlands with its policy and there's been some changes in some of these countries, some of which are nearby, as there been any behaviourial manifestations one way or the other from these—the existence of The Netherlands with its policy compared to these other countries with—some of them with heavier or continued criminalization policies?

A No.

Q In terms of use or—

A Not that—no. I mean, again, the use among Dutch youth is—the rates of use are actually lower than the rates of use among Canadian and American youth. So to the extent that there are any problems as a consequence of use, those problems are going to be diminished.

Q Do we know of, from your research, any particular problems, behaviourial problems, that have arisen in any of these countries, that they have that we don't have or anything like that as a result of—

A No. The only problems that arise are in relation to international disputes about the appropriateness or inappropriateness of what the Dutch are doing in relation to drugs, but those are not matters that flow from cannabis but from Dutch policy in relation to cannabis.

Q All right, but I mean here in Canada we—again we said we had Ledaine in '72 which basically surveyed the

field in great detail in terms of the history and uses and so on and recommended repeal, but we carried on with our policies and you've—and laws and you've told us what happened in terms of uses and convictions and so on. If we look at The Netherlands, they have had this defacto decriminalization since 1976, that they've—they've had this long period of time with defacto decriminalization. Has it led to any of the things that we hear in this debate, the fears that we hear of a huge increase in impaired driving as a result of marihuana use, for example, because it's so easily available there? Let's take that as an example.

A No. I'm not aware of any indices on that sort—

Q Do we have a huge increase in The Netherlands in emergency room admissions because of some consumption of marihuana or potency or anything like that—

A No.

Q -- that you're aware of? Do we have any—any, you know, problems that have manifested themselves that we can look at and we can say this is from marihuana's availability in the—in The Netherlands, because of it being so freely available? Do we have that there that we don't have here or—

A No.

Q -- or do we have something here that they don't have there?

A No. I mean, The Netherlands is a much more tolerant culture than ours in—in—in many different respects and they have lower rates of violent crime and so on, but that kind of difference is often used to say, well, that's why we can't compare The Netherlands to Canada because, you know, they're culturally so different, but it seems to me another way of looking at it is to say, well, we might well want to emulate the tolerance diversity that exists in The Netherlands in relation to our own culture.

Q All right. Well, then let's just bring it back to—to our own culture. So you've told us that notwithstanding this law, the—the law against simple possession for one's own use, that there's still been a large number of people using the substance in Canada, as statistics indicate that. So we've had a long period of time, if we go back to say just Ledaine, to observe and look and see if we're

having any additional or any problems at all as a result of people continuing to use the substance. Are there particular things that we can point to that we see as a result of all these people using marihuana, behaviours in any way, shape—

A No, I think the most significant thing we see are the disabilities that arise upon conviction—

Q Okay.

A -- in relation to possession, the six hundred million Canadians who have some of their liberties diminished as a consequence of their convictions.

Q So that then is a harm from the law itself—

A Yes.

Q -- as opposed to—

A As opposed to the drug. I think that—

Q -- the drug or the method of control?

A I don't—from my point of view I—I really think that the—the law creates many more significant harms than the drug could ever create.

THE COURT: Okay. In a submission to the Parliamentary Committee which is in our Book of Authorities, Your Honour, volume 4, tab 22, is a submission of the National Criminal Justice Section of the Canadian Bar Association to the Parliamentary Committee in relation to C-7.

Q I think you've had a chance to look at that in the past?

A Yes.

Q And in it on page 4 there are a number of statistics which are presented to do with numbers of users and number of people charged and so on. Are you familiar generally—

A Yes.

Q -- with those statistics?

A Yeah.

Q So what's the significance of—of that?

A In what respect?

Q In terms of patterns of use and rates of convictions and things of that nature. My understanding is is that we—well, perhaps give us the—give us the figures in terms of numbers of users apparently and how do they come up with those figures? In the Bar paper, for example, it indicates that—that there were—that these surveys are done and in 1990 6 percent, in 1985 6.5 percent of all Canadians aged fifteen and over, or 1.2 million people, declared having used marihuana and cocaine with as many as twenty percent in some age groups. So first of all, how do they—

A Well, usually these are—

Q How do they go about—

A -- surveys run by the Addiction Research Foundation out of Toronto or the Canadian Centre of Substance Abuse and they ask people on telephone surveys or through other kinds of survey indices whether or not they've used marihuana.

Q All right. So if you take that as being the—the number of people over that period of time—

A Well, I take it to be an underestimate because it seems to me that if you call people on the telephone and you ask them whether or not they use marihuana that you're—regardless—I guess the answer is fairly apparent. Regardless of whether they in fact used marihuana, a significant percentage of them would think that the most prudent thing to do would be to say no.

Q All right, and so if—but if you compare them—the—the figures that they do get of admissions of use to the number of people who are convicted of say simple possession, as I understand it the statistic shows in the case of convictions in 1990 thirty-eight thousand, 1985 forty-three thousand, which is about three percent then of all the declared users?

A Yeah.

Q So—

A I would be very surprised if it was as high as three percent.

Q In terms of simple—

A Yes.

Q -- possession of marihuana?

A Yeah.

Q Okay, but what does that indicate to you as a criminologist if—if you've got such a large number of people that are declared users and such a small number of people that are being convicted?

A Well, it could mean that they're not very good at enforcing the law, or it could mean that—that the police are not able to—to—to enforce the law to the extent that they might be able to. I'm not quite sure what you mean, what—what—

Q Well, I mean, does it—is it a random fluke that you get charged and convicted—

A No.

Q -- of marihuana?

A No.

Q Is it due to specific policies?

A Well—

Q Is it due to—

A -- those who are convicted are more likely to be poor, that is economically disadvantaged, male, and to have used the drug in a public setting.

Q The report goes on to say that the American studies come up with similar findings. Are you familiar with -- with those studies?

A Yeah. Yeah. The Sentencing Commission—

Q "The U.S. Sentencing Commission has predicted that in fifteen years"—well, that's to do with the—the prison population, but it says "In recent years police in the

United States have made about seven hundred and fifty thousand arrests for drug violations per year. Slightly over three-quarters of those arrests were for possession of an illicit drug. Two percent"—or sorry. "Those arrested represented less than two percent of the thirty-five"—

A Right.

Q -- "to forty million Americans estimated to have used an illegal drug during the same period."

A Right.

Q And then the F.B.I. statistics, 1992, "Five hundred and thirty-five thousand people arrested for possession, sale or manufacture of marihuana. Six received life sentences"—

A Yeah.

Q -- "for manufacture or sale," and then this business about the increase in the prison population. So again in the U.S. and in Canada is it fair to say that there was a large number of users, declared users, admitted users, in these surveys?

A Most—yes, and I—but I think the point has to be made that—that these surveys typically are underestimates—

Q Right.

A -- of the total extent of use.

Q But then we have the actual numbers in terms of convictions and so on?

A Right.

Q And they seem to be a minute proportion—

A Right.

Q -- compared to the overall use?

A Yes.

Q But we don’t know clearly why, other than inefficiency or ineffectiveness or something like that?

A Well, we get some clue, I think, when we look at the characteristics of those who come before the Court as to how—as to how the activity is policed at least, not—not—not so much about who—who uses it, who doesn't use, but as at least—as I say, at least as to how the activity is policed.

Q All right. Can we go so far as to say that there isn't any particular behaviour on the part of the person that brings them to the attention of the authorities, and I—I'm thinking of, you know, not going out—well, any type of behaviour, let's leave it at that rather than limit it. You're talking—

A I think the behaviour—

Q You're talking about—

A -- that usually—

Q -- economic—socio-economic level or something of that kind?

A Well, the behaviour that usually brings a person to the attention of the police is public consumption of the drug.

Q Right, which you mentioned earlier.

A Yeah.

Q Apart from public consumption, any conduct on the part of the person caused by the use of the drug?

A No.

Q Okay.

MR. CONROY: This would be a good time to probably end with Dr.—or sorry, Professor Boyd, if I could for today. I have—Professor Beyerstein is back. I've discussed with my friend to do with both of these witnesses because they haven't had an opportunity to go through the Brandeis brief. I'm going to want to have them do that before they complete their evidence and—and are then cross examined, and I see it's also the afternoon break times.

THE COURT: All right. So you wish this witness excused for the day—

MR. CONROY: Yes.

THE COURT: -- at this time? All right. Thank you, sir.

A Thank you.

THE COURT: You'll be notified as to when your presence is required again.

A Thanks.

(WITNESS STOOD DOWN)

THE COURT: Do you wish during the break to see if you might attend at the trial coordinator's office?

MR. CONROY: Well, we have the days in March booked. So what I was saying to my friend over the noon hour is that what we should do within the next week is get a hold of the trial coordinator to get extra days as close to those March dates as possible. I'm assuming we won't get them very close to them, but my friend and I talked about us booking perhaps as much as five days and trying to get it the earliest five day block that we can after that March—those two March days. The March days that we have right now are, I think, the 27th or the—I'll just check.

MR. DOHM: My notes indicate March 21 and 22.

MR. CONROY: 21 and 22 which we booked last time.

THE COURT: 21 and 22?

MR. CONROY: Yes. If you recall, Your Honour, what we thought we were going to be able to do was Section 7 now and—and if required Section 1 then, and so when we fixed the dates we've—we've fixed those dates as well.

THE COURT: I have—you're right, 21 and 22. All right. I was just going to suggest that you might perhaps at least leave the problem with the trial coordinator and right away—

MR. CONROY: Yes.

THE COURT: -- while he's in the building, if not actually solve it. Certainly if there are any dates before March I would much prefer to—

MR. CONROY: Yes.

THE COURT: -- get the matter heard—

MR. CONROY: My assumption is is that there aren't just because it was so difficult to get those March dates, but certainly we can ask and if he can—

THE COURT: Something may—

MR. CONROY: Folded or something, yeah.

THE COURT: -- kick loose, I suppose.

MR. CONROY: Okay. All right.

THE COURT: You might also ask the trial coordinator to put a—a note or a flag on—on the dates March twenty-one and two, et cetera, and the subsequent dates. Other continuations are not to be set down on top of this particular case because I think I have a similar problem as today's problem on March 22.

MR. CONROY: Okay.

MR. DOHM: Very well.

THE COURT: And we'll take the afternoon break now.

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

MR. CONROY: Your Honour, we have, I think subject to -- well, maybe not subject to anything. I think Judge MacDonald is going to be told that you're required here on March 8th and then 11th through 14th, which of course are days before the ones that we had booked which from our point of view is very good because if we don't need those other days on the 21st or 22nd that will solve the other problem if—if there's overlaps there.

THE COURT: All right. No, that's excellent.

MR. CONROY: One thing I forgot to do before Professor Boyd left the stand was just to get him to identify this and I—I—he's brought two extra copies. I gave one to my friends and one is to form part of our Brandeis brief. So if that could be marked as—I think we're marking them as exhibits in any event.

THE COURT: Yes.

THE CLERK: Yes. 9, Your Honour.

THE COURT: Exhibit 9.

EXHIBIT 9 - DOCUMENT

MR. CONROY: I would ask Dr. Beyerstein if he would retake the stand then and carry on where we were this morning.

BARRY LAINE BEYERSTEIN, recalled, testifies as follows:

THE COURT: All right, sir. You are still under oath.

A Yes, ma'am.

THE COURT: Thank you.

EXAMINATION IN CHIEF BY MR. CONROY continuing:

Q We were dealing or had—we had finished, I believe, the one—the issue of marihuana being an addictive drug, or the claim that marihuana's an addictive drug, and we're moving on then to number ten, "Marihuana related medical emergencies are increasing." I don't think we touched on that before. If we did, only very briefly. Can you tell us essentially what the Lindesmith review concluded in that regard?

A Just that it's not a matter of pressing concern, that all the indications are that marihuana is a remarkably non-toxic drug and that very few people require medical assistance. Now to say that they're increasing can be deceptive because while that may literally be true if they're—if they increased by a hundred percent from a very, very low rate which they already were that would still be a very, very low rate, and in The Netherlands and here and in the United States people just don't note that—first of all that the rates are changing in any relationship to the prevalence of use and that when it comes right down to it overdoses and adverse toxic reactions from over the counter painkillers are a far greater problem in emergency rooms than marihuana problems and as we said earlier those negative—the most prevalent negative effect of—of marihuana is that feeling of anxiety which in the wrong situation, in a threatening situation, in an unprepared user could lead to a psychologically unpleasant state, but it's self-limiting and when they come down from the drug it generally abates and they don't need any kind of further psychological or medical support and it rarely, if ever,

persists beyond a few hours and—and therefore isn't going to require this kind of medical support.

Q Have there been examples, that you know of, of somebody in that state getting into some sort of behaviourial problem?

A I've heard of a few cases, my students talk to me about these things when I teach, of people who said, you know, "I—I tried it and I began to feel anxious and—and it was kind of scary. I—I smoked more than I thought I was going to and—and that deterred me from either using at all again or—or certainly using to that extent," but I—I personally don't know anybody who's ever spoken to me or in any of our surveys that's ever had to go to an emergency room and—and the problem with many of these figures is—is that they use a word called "mentions," which—

Q Yeah.

A -- I mean they're simply going through computerized records and—and looking for keywords and—and it is very often the case that the—somebody at the same time would have been using alcohol or barbiturates or—or cocaine or amphetamine or L.S.D. or any of the other things that sometimes get used in conjunction and are known to have greater potential to cause this kind of -- of effect that might need medical attention, and so the fact that they went there might not have been to do with the marihuana at all. It just happens to be mentioned in the record and so one box gets ticked in somebody's computer.

Q Okay. The—the Lindesmith document indicates about the middle of the page "Despite marihuana being the most frequently used illicit drug, in emergency rooms it remains the least often mentioned illicit drug." First of all, would you say based on your knowledge of the topic that marihuana's the most frequently used illicit drug in Canada?

A Yes, I think that's true.

Q And do we know if it is also the least often mentioned illicit drug in emergency rooms in Canada?

A I—I haven't seen that. In the United States there is this D.A.W.N. system, D-a-w-n, Drug Awareness Warning Network, and they have a tremendous amount of money and they can go and ferret out these numbers and it takes a lot of—a lot of effort and a lot of time, a

lot of money to get them, and I don't know that we keep figures like that in Canada. I—I don't know that we don't, but I haven't seen them.

Q I was going to ask you, I mean do we have a similar thing as D.A.W.N. in—in our emergency rooms?

A Not any—anything as formal as that. There—there are bureaus in various government bureaucracies that try to do this sort of thing. Alcohol and Drug Commission, for instance, might have something like that. I don't know. I haven't seen it though. They don't publicize it routinely the way D.A.W.N. does at least.

Q All right. So certainly in—in terms of your investigation of marihuana in the research and everything that you've done nobody ever has brought that to your attention as a problem of some kind?

A No. In fact on the contrary. I think not only the Lindesmith report, but again the Institute of Medicine report and the various papers done for the National Task Force on Cannabis in—in Australia, all agree that it's a remarkably non-toxic substance, that you really have to search to find serious adverse effects.

Q At the bottom of the page it says "Despite recent increases in marihuana mentions ..." and this is the search and—

A Tick the box—yeah.

Q -- up it comes "... hospital emergency rooms are not flooded with marihuana users seeking medical attention. In 1992 of four hundred and thirty-three thousand four hundred and ninety-three total drug mentions, only four thousand four hundred and sixty-four, about one percent, involved the use of marihuana alone." So that's the point you made a moment ago is that you have lots of mentions, but of the mentions the other figure, the one percent, were people who came in because of marihuana alone, is that—

A That's right, and—and the—the most commonly used illicit drug has the lowest rate of—of mentions, and even the mentions, as we've said, could be inflated. So I think from this we have to conclude that it's not a serious problem.

Q And is that supposed to then give the statistics for right across the United States, or do you know, this—this D.A.W.N. system as it were?

A It's a federal service I think funded by the National Institute on Drug Abuse.

Q Okay. Okay. Moving on then to claim eleven, "Marihuana produces an "A" Motivational Syndrome." We've talked a bit about that from time to time over the last couple of days. What were the conclusions of the Lindesmith review in that regard?

A Again that it—it's a political rather than a scientific issue, that a lot of anecdotal evidence was gathered at the very beginning, it was given wide currency, it was used as—as a reason for repressive measures of one sort or another, but when the actual data came in they were not nearly as alarming and it's another one of those problems that I constantly have to try to drill into my students that correlation doesn't imply causation, that things can occur together in time and place for a variety of reasons, not necessarily that one is the cause of the other or vice versa and—and you cannot tell by mere correlation, and so the argument here is being made that when you see somebody's who's not motivated that—and uses marihuana, that it must therefore be due to marihuana use, but it's equally likely, and there's some evidence—there is some evidence from studies to point to support this, that people who are disaffected with life, disaffected with the economic system, who are not by personality or upbringing inclined to be striving, hard-working, productive, competitive individuals, may gravitate towards this and various other activities and so the causal arrow could—could point in the other direction, and the other thing of course is that these data suffer from another serious problem and the analogy here is one—might be the following, that if somebody hung around a divorce court all day you would be hard-pressed to believe that anybody had a happy marriage, and so what—what happens here is people go to the police blotter, they go to the detox centres, they go to the treatment facilities, they go to social workers, and—and they say "Show me your people who are having trouble with life" and sad to say there's never a shortage of them and then they go and they look at those people and they say "Well, what—what's in their background and what have they done that might be the cause," and they say "Oh, they used marihuana. That must be the cause," and of course any elementary philosophy student knows that there's a logical fallacy here. It's called "post-hoke ergo proctor-

hoke" (phonetic), "after this therefore because of this," and it's just—it's just a logical fallacy, but we—the only way we can know whether there's any relationship -- a causal relationship here is to take another random sample of people not, you know, selected initially because they're having trouble in daily life, and then see what percentage of them smoked marihuana, what percentage of them have motivational problems that haven't come to the attention of anyone else and so on, and if you do that then you find that there are a tremendous number of people and—I mean, if we take the usage rates that you were just discussing with Neil Boyd a few minutes ago, given how many people actually have used and use on a fairly frequent basis, there should be a lot more damaged souls out there than we really find, and so what I'm saying is—is that if we concentrate only on the casualties and then assume it cause—it was caused by marihuana, it's not a logical conclusion that we can support, and secondly there are a lot of people out there who use significant amounts of marihuana and are striving professionals, business people, in the arts, among the best and the brightest and—and most productive. So it clearly doesn't cause it automatically.

Now Her Honour asked me earlier about the difference between experimental studies and field studies. Well, here's a field study. Now there are also a series of experimental studies where normal volunteers were brought into an experimental setting where they had to live for a specified period of time, up to several months in a few of the studies, and they were given free access to marihuana, and other things in this token economy, closed environment were made contingent on certain kinds of work that they would have to do for them to—to receive whatever it was they needed or wanted over basic subsistence, and in those cases the measure of one's motivation is how hard one works and what one achieves in return and under those conditions, these—this would be the experimental version of—of the study, again there was no indication that—except in one study where they were—they were required to use such an incredibly high dose that they were physically incapacitated part of the time, that there was any diminution in their subjective feelings of motivation and their objective performance.

Q The main field studies, as I understand it, or at least as indicated in this review, is the again Jamaica, Costa Rica and Greece studies?

A In—in some of those cases—you know, I mentioned to you earlier that in some—in some societies people say they like to smoke marihuana because it makes them hungry and enjoy food more. In other societies they say food is scarce and "It takes my mind off my hunger and I don't feel as hungry," and so it has exactly the opposite effect depending on the social situation. Well,

here’s a classic example of the same thing that in those countries one of the things they did was—was go and talk to the supervisors and get workplace estimates of how diligent and reliable a given worker would be or had been and then they would say, well, all right, let’s now break it down according to marihuana use, and actually in some of those studies they found that the marihuana users actually got better workplace recommendations from their superiors and in most cases it made no difference, there was really no -- no—no particular difference one way or the other.

Q Those were the main field studies, I understand, Jamaica, Costa Rica—

A They were the largest—

Q -- and Greece?

A -- ones, yes.

Q Do you know if there were any done in—in South Africa in terms of use of marihuana by the Africans who worked in the gold mines?

A No, I don’t, and unfortunately South Africa’s been until recently sort of cut off—

Q Harder to—

A -- for other reasons and—

Q At the bottom of page 12, or towards the bottom, there’s a reference to a Canadian lab—or laboratory study. It says that "However, in a Canadian study that required subjects in the marihuana group to consume unusually high doses some reduction in work efficiency was noted in the days following intoxication," and that is a reference to it says "I. Campbell." I don’t know if it’s Ian Campbell who was on Ledaine, but are you familiar with that particular paper—

A I—

Q -- the "A" Motivation—

A I have seen a summary of it. I haven’t actually read it.

Q Okay.

A But—

Q It says "unusually high doses." Do you remember what they were talking about there in terms of high—

A Only that they were well in excess of—of what a typical social user would indulge in and of course the typical social user doesn't use every day. Daily usage is—is fairly infrequent and what they were doing there was not only making them use massive amounts, but if I remember correctly were—were spacing them so that they were taking them practically every day and under those conditions these people were a bit confused and lethargic and—and didn't perform as well, though it was—I remember not dramatically so, but a measurable—

Q That's what I was going to ask you, how—how significant—

A Yeah.

Q -- a change or reduction in work efficiency?

A Yeah, I—I'm sorry, I just don't know that.

Q Okay.

THE COURT: I have a question. It's called a "Canadian" study. Is it done in Canada?

A I think that's all they're referring to. This is an American document and they're giving the foreigners credit for having performed it, but it wasn't a Canadian survey or anything. It was a Canadian researcher at a Canadian university and—

MR. CONROY: Although—

THE COURT: Who's he—who's he working with?

MR. CONROY: It says "I. Campbell, The 'A' Motivational Syndrome and Cannabis Use With Emphasis on the Canadian Scene, Annals of the New York Academy of Science, 1976" is the reference though. I took it from that that—

THE COURT: I—I'm just curious as to how they undergo the study—

MR. CONROY: I—I—

THE COURT: -- in Canada, or whether—

A The—

THE COURT: -- they've gone to another country and used—

A No, this was—this was one of the experimental ones. I—I'm—I'm pretty sure. Now I can check that and—and confirm it for you, but if—if it's the one that I believe it is, it was one of the ones where volunteers were brought in, informed consent was obtained, and then they were given medically pure marihuana to smoke, and their performance was measured on standard tasks over the duration of the study, and so it was an experimental study as opposed to the kind of survey studies like the Jamaican ones that we were talking about a few minutes ago.

MR. CONROY: So we—

THE COURT: Is there a system for requiring legal permission to—

A Yes. Yes. When somebody with a—with the proper academic and professional qualifications in a duly accredited institution has permission to engage in a study, then Health and Welfare Canada will provide, and I.D.A. (phonetic) in the United States, will provide whatever it is that's approved in the protocol and so—now when I've done studies like this in the past it hasn't been with humans, as I said yesterday, but even for animals I need permission to possess, in our cases it was morphine and heroin, for our animal studies and I had to first of all get permission from my institution and go through the ethical clearance for all of that, and then I had to write to Donnes Pasture (phonetic), Health and Welfare Canada in Ottawa, and tell them what I wanted to do and that I had permission and what precautions I was putting place to make sure that it didn't leak out onto the street and that I wasn't going to sell it and so on.

MR. CONROY: My recollection, Your Honour, is that the provisions for this are all in the regulations which aren't before you, but should be, and I'll make sure that you have a full set of those Narcotic Control Act Regulations, and if my memory serves me, my friend may be able to indicate this more accurately, but I think that in recent times permits have been issued for—under—under these similar provisions of the regulations, for hemp growers, some in Ontario, I think, I read in the newspaper, but we may be able to get you actual statistics on that in terms of what's actually gone on.

Q Okay. The next claim is number twelve, that "Marihuana is a major cause of highway accidents." Now it indicates that the detrimental impact of alcohol on highway safety is well documented and that it's claimed

that marihuana is likely to do the same thing, certainly if it's more available, et cetera. Can you comment on the Lindesmith review and your own knowledge in this area?

A Yes. They rely quite a bit on one of the larger scale and most recent studies done by the National Highway Transportation Safety Agency, a creature of the U.S. Department of Transportation, and it cited again in the report here, a Dr. Robbe, R-o-b-b-e, was the principal investigator, and these involved actual driving in dual control automobiles such as we use to teach new drivers and which were instrumented to—to record errors in -- in lateral sway, steering, infringements of speed limits, and other kinds of dangerous or potentially dangerous practices and—

Q Lateral sway is that weaving within one's lane?

A Or in the worst case beyond it, although that—that interestingly didn't happen. That what they found was that even at the very highest doses that were used here, which again were higher than what the average social user would reach, the degree of that "lateral sway" as they like to call it was approximately equivalent to about that which you would find in an alcohol intoxicated driver at—at just about the level of legal intoxication, so somewhere around .7 to .9, I think, blood-alcohol concentration, and one of the things that—interestingly enough, when they actually compared to placebo-smoking people who then—who smoked a similar size and tasting and smelling marihuana cigarette, but one that had been genetically grown to have virtually no THC, therefore no psychotropic effect, that none—none of those—although there were some trends in the direction of say greater lateral sway and some of these other things, that if I remember correctly none of them were statistically significant, in other words the overlap in the two populations, the one getting the active drug and the placebo on the other hand, were such that there was no statistical significance except for one measure which was that the marihuana smoking group, or the THC receiving group to be more precise, drove slower than the other group, and this is something that I think the Australian studies note as well which is one of the big differences between a marihuana-using driver and an alcohol-using driver is that the marihuana-using driver is aware of the fact that coordination and reaction time is slightly affected and they tend to drive more carefully, more slowly; whereas alcohol has this disinhibitory effect, like I can lick the world, and—and what a lot of the research on alcohol and driving shows is that the—the effect on simple eye-hand coordination, motor coordination, that

sort of thing, is—is greater than marihuana, but—but the—as far as accidents are concerned by far and away the worst effect is on this kind of Superman, macho effect that comes out where, you know, I can beat that—that oncoming car or that changing light or whatever, and it—it's the recklessness factor. Where marihuana seems to have the opposite effect where people say, you know, "I might not be at my peak of performance and therefore I had better slow down, I had better watch the road more carefully," and so on.

Q Might be an alternative solution to using cameras to take people's pictures on the highway, get them to slow down. Just kidding. In the middle of the page it speaks to something I think we touched on this morning, the question of the substance remaining in the person's body. So when we—when we talked of these studies and the impairment level on the driving, this was immediately after they've consumed and are suffering or experiencing the psychoactive reaction from—from the—the acute phase as we've discussed?

A Well, we don't know that. See, that's—that's one of the limitations of—of this kind of research, that they take a group of people who have been involved in accidents and submit them to blood tests or—or other lab tests, and it's not like a breathalyzer which tells you the immediate blood-alcohol content right at that moment which shows it fairly—in close relationship to the degree of impairment. In the case of marihuana, what those tests pick up either in urine or in blood is the metabolites, the breakdown products, and even the most vociferous advocates of—of urine testing, for instance, for marihuana and other illicit substances, have to admit, they do admit, that you can only tell from that information that the individual was exposed at some time in a particular time window prior to that instant, because it doesn't tell you when the person took it, it doesn't tell you how much the person took, and it can't tell whether or if the person was—was impaired, and so the same amount of metabolite in the urine or in the blood could—could arise from a large dose taken a long time ago or a small dose taken recently or a tiny continuous dose over the whole period, that the metabolites would not show appreciable difference in those three cases, and so in the latter case, the small dose—tiny dose taken continuously over the whole time, that person might not have been impaired at all at any time. In a large dose taken a long time ago the person might have been quite impaired for—for that period of time, but weeks later you're still picking up the metabolites and he hasn't been impaired at all in the meantime. So it really tells you nothing about the

degree of impairment, if any, of the individual, just that they had been exposed either directly or even by secondhand smoke to the substance at some previous time.

Q But that then, if I understand you correctly, is simply because the data that's collected is in the situation where somebody's been in a fatal accident and then they test to see if they've got marihuana or alcohol or other substances in their—in their fluids?

A That's right, and—and as a civil libertarian I would have a lot of trouble about doing this, but as a scientist if I wanted to know what that—what those numbers mean I would have to set up random roadside checks and stop an equal number of people at the same time of day and match for all the relevant demographic characteristics and of course take people who are not involved in accidents and measure them, and then we would know if the group that was involved in accidents had a higher incidence of hot urine tests or hot blood tests for marihuana metabolites that—again, it would only be correlational, but it would at least be a stronger argument that it had something to do with the—with the accident, and of course the problem of mixing drugs is a big one here, that people generally -- or often mix alcohol with marihuana or other substances that can have an effect on their motor coordination and ability to safely operate a vehicle.

Q All right. Now so those studies though are done taking samples of people who've been involved in fatal accidents?

A Right.

Q The other studies, if I understand you correctly, are done in simulated situations where the person is given some marihuana to smoke at a certain level or dose and then sits in a—a simulated vehicle and does certain things—

A That's right.

Q -- and from that they determine the level of—of weaving or how it impacts on the driving?

A That's right. We have, you know, in one of our labs at the university at Simon Fraser a fairly sophisticated driving simulator that has a television—you know, a very large projection screen and—and mimics reasonably well the necessary perceptual and motor aspects of driving,

but of course again this gets back to the ecological validity question. You can control all kinds of things there, you can do it more safely, you can answer certain questions that you can't on a real road test, but at the same time, and I think everybody would agree, that the stakes are much higher in a real hurtling vehicle and—and you can't very well mimic that in a—in a lab setting. So that's why you need the ecologically valid field research side by side with the more restricted but somewhat less ecologically generalizable studies in the lab.

Q Now am—am I right though that in those circumstances they're clearly measuring a person in the acute phase?

A Absolutely, yes. There—there you know in those cases exactly what they've done. So this is one of the things you can control, and—and one of the shortcomings of a survey is, as Neil Boyd pointed out, you have to have their very great trust before you can be sure that they're even telling you the truth, if there's some potential penalty for 'fessing up, and people are notoriously bad at remembering these things accurately, even if they're trying to be honest, and furthermore there are no truth in advertising laws in illegal drugs. This is one of the further problems of prohibition, that you're at the mercy of the least desirable elements of society who are not particularly worried about making sure that there's quality control for dosage and purity and lack of adulterants and—and that sort of thing, and—and this is one of the other hidden and nasty costs of prohibition. So there again, when you simply take people out of an automobile wreck and test them, even if they're willing to try to be as honest and accurate as they can, you don't know exactly what or how long or how much—how long ago and how much of the drug they actually took and that's one of the reasons you want to try to hone in from another angle by using simulators or other laboratory tests that—where you do have that kind of control.

Q But we do know from the studies that after the acute phase has passed, the fact that these metabolites continue to be in the body for some period of time, that that has no effect on the psycho-motor skills or ---

A No, it has no effect on the—

Q Okay.

A -- abilities themselves at that point because they're inactive, they're breakdown products, they've been cleaved by the enzymes that deactivate the drug by that time.

Q So it's very similar to—to alcohol in the sense of at a certain level of alcohol the person's ability to drive may be impaired to some degree depending upon the individual and how much they've eaten and all sorts of variables, and—and the absorption rate of the alcohol going up and then coming down?

A This is correct, that the operative effect of the drug is going to be related to the amount of it in the bloodstream available to those neuro-receptor sites we discussed earlier at any given time, but even there individual differences are huge. I mean, the amount that will incapacitate one person will hardly affect another, and the relationship between impairment and blood-alcohol levels, for instance, is probably the best we have for any of the drug classes, but it's still rather elastic.

Q All right, but then we get to these figures that are shown in the second to last paragraph, that the—"Even the highest dose of THC impairment was relatively minor ..." it says "... comparable to that with blood-alcohol concentrations of between .03 and .07."

A That's right, and .08 of course in our jurisdiction is the legal limit for intoxication and—and so it's less than that.

Q So what they're saying was that even if you took a large amount of marihuana and had just finished smoking the large amount or eating it or whatever, that it would take an awful lot to reach .07?

A Or—

Q Is that—

A Well, of course it wouldn't be .07, but the equivalent degree—

Q Yeah.

A -- of incapacitation to .07 blood-alcohol concentration, yes.

Q Now that reference at the bottom of page 13 is, as I understand it, the Robbe—

A That’s the Robbe—Robbe, and I forget—

Q Robbe—or Robbe—

A -- who the co-author is—

Q -- study?

A -- but that’s the U.S. Transportation Agency’s study.

Q That’s the same group? That’s what I was going to ask you.

A I believe so, yes.

Q So the references higher up to "NHTSA" is the same study, is it?

A Yes. "Superscript ‘81" is the study.

Q ‘78 is—

A Okay. Sorry.

Q -- looks like—

A No, excuse me then. That—that’s—‘81 is the simulator one.

Q Yes.

A That’s right. Excuse me.

Q Now ‘82 is Robbe?

A Yes. ‘82 is the—is the Robbe study, that’s right.

Q All right. So we actually have three here. If we look at the top one, ‘77 and ‘78 are the top two references, that appears to be McVeigh (phonetic) and Owens (phonetic), "Marihuana and Driving" and "The Incidence of Cannabinoids and Fatally Impaired Drivers."

A That’s right. That—

Q And Tearhoon (phonetic), "Incident and Role of Drugs in Fatally Injured Drivers."

A Yes, and ‘82 is—is where the quote on the very last line was taken. That’s the Robbe and O’Hanlon (phonetic) U.S. Department of Transportation study.

Q And Stein (phonetic) is ‘81, the—the simulator study?

A Right.

Q Okay. Now Robbe and O’Hanlon, "Marihuana and Actual Driving Performance," 1993, presumably that’s the same person as Robbe, "Influence of Marihuana on Driving," that’s in my friend’s Brandeis brief, tab 17? H.W.J. Robbe, is it, or does it indicate that?

A H. Robbe. Yes, I—I’m pretty sure that’s the same—same individual.

Q All right. The next claim then is that "Marihuana is a gateway to the use of other drugs." What did the Lindesmith review—or just before we go—go onto that, I just want to ask you something else, and if—if you’re able to answer this in relation to the driving issue. We often hear that one of the problems is detection of a person who’s driving under the influence of marihuana compared to the person who’s driving under the influence of—of alcohol. Have they in any of these research studies to your knowledge or any of the work that you’ve done looked at that in terms of ways and means of detecting and—the differences if necessary between that and—and alcohol detection?

A I’m not aware of anything specifically related to marihuana and competence to drive, but what I am aware of is a general trend that is going away from biochemical testing towards what is called "competence" testing and—and this is something that is already in place in experimental ways in studies in the airline industry with pilots, in the transportation industry, and train drivers and long distance bus and truck drivers and so on and—and what’s really becoming quite obvious is that impairment is a very complicated thing and drugs are only one of many different things that can adversely affect somebody’s ability to be accurate and safe in these critical situations, and so what we really need to know is what is somebody’s ability to process information quickly, to make a response accurately and effectively, and to respond in a short period of time and so on, and what we know is that somebody who’s—who’s just had a fight with a spouse and hops in an automobile is probably more a menace on a highway than somebody who’s taken a modest amount of many of these drugs and—and similarly somebody who has

just gone from afternoon to day shift and hasn't re-equilibrated his or her circadian rhythm to the shift in—in working hours is much more likely—there are a lot of data that show that they are much more likely to have an accident through inadvertently missing a signal or—or changing lanes unannounced or something like that, and so knowing that there are so many things that are potential dangers what the academics are now arguing and people are beginning to move toward in a practical sense is what's called "competence" testing where you have a little thing something like my son's Game Boy Nintendo machine, you know, self-contained, battery powered, where instead of making Super Mario jump a hoop you have to make a—a line come together through a circle or—and a number of little things that are good indicators of somebody's degree of alertness and arousal, somebody's reaction time, complex and simple reaction time, ability to plan ahead, and there are—we know what the component things are that are deteriorated by all of these things, drugs included, and we don't want people operating machinery on a—on a factory floor, we don't want them flying an airplane, we don't want them driving an automobile if they're not in a state to—to do that safely, and so this is the direction things, I predict, are—is going to go, that we're going to get out of the chemical testing business and we're going to say "I don't care why you're impaired. If you can't line this up accurately, quickly, in a short enough time, I don't want you behind the wheel or at the lathe or in the airplane" and—and so in effect what I—I think, you know, has always been the case is that the police only stop people, except in random unannounced roadside checks, of course, only stop people who are behaving erratically or—or are somehow not in control of their vehicle and—and if that's due to marihuana or that's due to the doctor prescribed tranquillizer that somebody has—has legally taken or whether it's due to the fact that they were stupid enough not to go to sleep last night and they're now trying to drive on the highway, the police have every right and obligation to stop that individual and find out what's—what's causing the problem, and I think that's how marihuana is usually discovered in those situations, it's only if somebody is impaired to the point where—where they come to someone else's attention.

Q Well, that's more what I was looking at, is the ordinary policeman who's out there observing traffic. I mean, you said there may be some erratic driving, so they might stop the vehicle. So I'm looking at it from the point of view of the policeman in the impaired driving situation having stopped the vehicle might observe the—the person, smell alcohol on their breath,

and as a result ask the person to do other tests, roadside tests, ultimately may go to some machine, either a—nowadays at the roadside or subsequently down at the station. Now first of all, as I understand it at least you're not aware of—or you may have heard of, but don't know the—the technical aspects of a machine that is equivalent for marihuana as there is for the breathalyzer?

A I know there is something that claims to do that, but I don't know, you know, whether it's been standardized and accepted for instance as a—as legally acceptable in court or any of those things that breathalyzers clearly are.

Q The Berenger (phonetic) Ionizer Scan that they use—

A I—I've heard of it, but I'm sorry, I'm not—not at all familiar with the process or—or its accuracy for that matter.

MR. CONROY: It's of humour, Your Honour, because they've recently tried—tried it out at Matsqui Institution for visitors coming in so—and I happen to have passed the test so that's why—

THE COURT: Oh, you did pass? Good.

MR. CONROY: -- much—much to many people's amusement.

MR. DOHM: As long as they weren't surprised.

MR. CONROY:

Q But what I'm getting at though is if you consume a large amount of marihuana, you've just smoked some marihuana, and according to the study here take quite a bit to come up to a comparable .03 or .07, but clearly the person's ability to drive may well be affected by having just consumed the marihuana. Now it's—it's psycho-motor—or motor coordination skills, is it—is it that it would be affected by the consumption of the marihuana in the same way as—as alcohol?

A Somewhat, but to a lesser extent.

Q Okay.

A But the—

Q So—

A The problem with marihuana is—is less that it's a direct inhibitor of—of—psycho-motor coordination and—and reaction time and more that it—it tends to make somebody distractible and they may miss a signal, and if you—if you actually look at the data on these studies what happens is that most responses are just about as fast as they would be in the non-drugged occasion, but every once in a while something will draw the person's attention away and they'll miss a signal and there'll be a huge long interval that they won't respond and—and that's the—a reason that the average goes up, it's not because each individual response is elevated as it is in the case of—of alcohol.

Q Well, would the officer at the side of the road—I assume smell could be a factor in terms of marihuana, not simply because they may have smoked in the vehicle, but because of having smoked somewhere else and there still being a smell about the person?

A Yes. It impregnates the cloth of people's clothing—

Q All right.

A -- and if they have facial hair or even head hair, you know, it picks up the smell and it's—

Q So in terms of the officer's ability to determine if the person's under the influence of marihuana, just like with alcohol one factor might be smell?

A It could be.

Q Now if they then had the person do roadside tests, heel to toe, finger to nose, all of those sorts of things, would that assist the officer in being able to detect whether or not the person is under the influence of marihuana?

A Sure, because I mean that's essentially the time honoured way of—of doing in an overt behaviour what that little competence testing device that I'm predicting will become more—more commonly used is doing. I mean, these are actual performance tests, and that's what we really want. I mean I think I quoted Gertrude Stein earlier, you know, that "A difference isn't a difference unless it makes a difference," and here's a case where if it makes a difference then I don't think any reasonable person would disagree that somebody should not have done whatever it was that makes this difference if it's a deleterious one to the safety and competence of driving.

Q It'd be fair to say then, correct me if—if you disagree, but while it may be desirable and we may be moving towards developing a machine like the breathalyzer that could do this for marihuana, we can detect this without the machine at this point?

A Yes. Impairment is impairment and—and those tests are—are reasonably good detectors that any trained police officer could safely use and conclude from.

Q All right. Sorry. Claim thirteen, "Marihuana is a gateway to the use of other drugs."

A Right. Well, here again there's some basic logical fallacies here that cloud the issue, that if you look at users of so-called hard drugs chances are very high that somewhere earlier in their career they used marihuana, and so the gateway idea says, well, they start out—you know, that these are training wheels sort of and—and they progress from the soft drugs inevitably, inexorably to harder drug use. Well, that's just clearly not the case because to say that those who did use hard drugs probably also used the soft one simply tells you there's a class of individual who by training and probably by neurochemistry and genetics is attracted to consciousness altering substances and the fact that they use one predicts that they'd use another, and that's not too surprising, but the more important fact, and it's clearly documented, is that if you then start at the other end of the spectrum and say look at all the people who have ever used marihuana or who have used it fairly frequently, regularly, whatever, what percentage of them progressed to—to use of—of harder drugs, and the answer is very—very small. I mean, if we wanted to make the gateway argument what we would really argue is that alcohol and tobacco were the gateway drugs because an even higher percentage of—of heroin users and cocaine users and amphetamine abusers started drinking first before—and smoking tobacco first so—but I don't believe there is such a thing and—and—as a "gateway" drug, that is. I think it's a statistical artifact, as I was trying to say, but a false argument, and the other thing is that if it is a gateway drug then what you should find is that as marihuana use goes up in society then hard drug use should go up as well, because there are more people going through the gateway it's only reasonable to expect, and that's not what you find, is—is that hard drug use and soft drug use both vary considerably. It's almost like fashion, you know, men's lapels and women's hemlines, you know, change over time and—and I'm not being facetious. I mean, drug use has a certain fashion to it, that at one time something is

in and popular, the beautiful people are doing it, another time it's absolutely declasse and out, and if I wanted to stop people from using drugs and I could make—just make it unfashionable, that—that would be the way I would go about doing it.

So anyway, these things come and go in fashion and they don't go in tandem so—and when marihuana use goes up it bears no automatic relationship to increase in hard drug use. In—in fact, one of the most interesting statistics from The Netherlands is—and in fact this is part of the drug policy of—the reason for enacting the system that they have there, is that they were hoping to break hard drug use and its subculture away from soft drug use, that what they said was as long as it's all wrapped up in illegal activity whether you like it or not if somebody's going to have to illegally purchase soft drugs they're going to buy them from the same people in the same unwholesome atmosphere, et cetera, as the hard drug users and they're going to be exposed and maybe more likely to try it, and so what the Dutch said was, again, it's a harm reduction policy. It let us go a little softer on the soft drug use in hopes that this will make it a more mainstream and less deviant activity and that it will wean people away from the more deviant activity, and in fact that's exactly what's happened, that at the same time when the Dutch liberalized their policy, as you were discussing with Professor Boyd earlier, the—the rate of hard drug usage was going up in all the other jurisdictions that were trying to suppress it by the most vigorous law enforcement means and it actually didn't go up in—in—in The Netherlands when soft drugs became more freely available. So I think that clearly disproves the stepping stone idea.

Q I was going to ask you about that, but I think you've answered the question, the concept that the prohibition itself from what you're saying creates this culture of—of users and because a number of different drugs are illegal it's from the prohibition that they may more likely come into contact with the other drug?

A That's right. That's part of it, and the other is the sort of forbidden fruit aspect that some people engage in these activities primarily because it's a way of thumbing their nose at polite society and the dominant elites and so on and—and so if you make all of these things part of that same subculture you have the deleterious effect of the forbidden fruit part of it and then you also drive otherwise non-criminal people who would—who would have no desire or tendency to progress to hard drug use, you still drive them into that unwholesome subculture to buy their soft drugs, at which point somebody's going to say "Here, try one of these," you know, "You might like it" or, you know, it's just more likely that they're going to be exposed and perhaps use the harder drugs as well, and that's precisely what the Dutch hope to—one of the things they hoped to achieve and—and did quite strikingly achieve with their change in policy.

Q That seems to be indicated at the bottom of page 14 where the reference is made to 16 percent of youthful marihuana users in the U.S. having tried cocaine, and the comparable figure of the Dutch youth is 1.8 percent.

A Yes, that's true.

Q And then it specifically addresses the—part of the reason for their policy. Now that was claim thirteen, "Marihuana is a gateway." The last one was claim fourteen, "Dutch marihuana policy has been a failure," and I think maybe in giving part of your answer there you may have addressed this one as well. It simply indicates the—the commissions and—and the Dutch policy and what it was based on and indicates in part the belief that separating the retail market for soft and hard drugs decreased the likelihood of the user coming into contact with the other drugs, as well as the other factors indicated there under number fourteen. Can you comment on that in conclusion? The Dutch marihuana policy, is it succeeding or has it been a failure?

A Generally people don't copy failures, and over the history of this issue the Dutch have taken a lot of flack from particularly the Germans who historically have preferred a more hard-line approach to this, but to their great credit they too are pragmatists and they look at the numbers, they—they share a border of course with—with Holland and—and they've looked at unemployment rates, they looked at petty crime rates, they looked at violence—violent crime rates, all kinds of social indicators on their side of the border and on the Dutch side of the border, and concluded that in fact what the Dutch were doing was having good effects at home and it wasn't as they had feared that bad effects in Holland were going to spill over into—into Germany and now some of the more progressive moves toward decriminalization, legal access, and so on are—are actually being tried by the Germans, the Humberg (phonetic) resolution is the one that's probably best known, and—and the Swiss too. The Swiss have recently embarked on a—a nationwide experiment, in this case primarily with heroin users, but also making marihuana freely available through the same treatment regimen, and again they've copied the—they've copied the Dutch and the Dutch are—are—despite what's sometimes said here, are not intending to change their ways. That they tinker with it all the time, they want to make it better, they want to close loopholes and things that they think can be improved, but one of my most recent publications was with one of the major advisors to the Dutch government on drug policy, Professor Van

Devangart (phonetic) of University of Utech (phonetic), and—and we're in close contact, and also Peter Cohen (phonetic) of the University of Amsterdam, another friend and colleague who's a major advisor to the Dutch government, and they tell me that—that they have no inkling that the government's going to change and in fact a few years ago I was taken to dinner by the Minister of State for Health of The Netherlands when he was through here in Vancouver. He read something that I had written and had the embassy or the consulate here invite me to come and meet with him because he wanted to talk about it, and he was one of the major architects of the—of the system as it exists there now and he also indicated that they're pleased with it, that it's far from perfect, but this is human beings we're talking about, this isn't heaven, and—and that they feel that, to use an American metaphor, this is a job for the Surgeon General not a job for the Attorney General, and they have a very comprehensive public health system there and they consider what they're doing to be in the best tradition of the best public health measures.

Q That would seem to be indicated by the—the reference at the bottom of page 15 where they—they say that the government's official position is steadfastly supportive of the 1976 initiative that decriminalized possession and retail and the reference for that seems to be a report of the Ministry of Health and Welfare, Cultural Affairs, and the Ministry of Justice in 1994?

A That's right. This—they make annual reports and often their main reason is to counter slurs on their reputation that have originated beyond their borders.

Q Just to finish off very quickly, I just want to point out one of the main policy factors that they based their change on, according to this document, is a finding that compared to other illegal drugs marihuana poses little risk to the users. Do you know if they have found any change in that since adopting this policy?

A No, they haven't. They—they wouldn't have maintained the policy if they thought that it was a serious risk to the national health.

Q Okay, and then also it indicates that since liberalization marihuana use has increased in The Netherlands, although rates remain similar to those in neighbouring European countries and are generally lower then those in the United States. Does that accord with your understanding?

A Yes. In fact the increase is there, but I think it's as Professor Boyd was saying that the rates of usage worldwide were quite a bit higher in the '60's and '70's, then they took quite a precipitous dive and now they've come back up a little. So it's—it's true to say there's been an increase, but it's certainly not increased up to the 1960's levels and the—the dramatic point here, of course, is that while that's been a worldwide trend the countries that have attempted to suppress usage by vigorous law enforcement have seen a bigger increase than the ones who've treated it more as a public health and social policy matter.

MR. CONROY: This be a convenient time, Your Honour?

THE COURT: Yes.

MR. CONROY: March the 8th then, I believe.

THE CLERK: Yes, Your Honour, the next continuation date is March the 8th at nine-thirty, courtroom number nine.

THE COURT: All right. Your client is to return then to court on the 8th of March—

MR. CONROY: Yes.

THE COURT: -- 1996, nine-thirty, courtroom—

THE CLERK: Nine.

THE COURT: -- nine?

THE CLERK: Yes, Your Honour.

THE COURT: All right.

(WITNESS STOOD DOWN)

(PROCEEDINGS ADJOURNED TO 1996 MARCH 08 AT 9:30 a.m.)