REGINA V. CAINE ARCHIVE

File No. 65381

C A N A D A

IN THE PROVINCIAL COURT OF BRITISH COLUMBIA

(BEFORE THE HONOURABLE JUDGE F. HOWARD)

SURREY, B.C.

1996 MARCH 14

REGINA

V

VICTOR EUGENE CAINE

PROCEEDINGS AT

TRIAL

APPEARANCES:

T. DOHM, M. HEWITT, A. CHAN for the Crown

J. CONROY, Q.C. for the Defence

A. WILLIAMS Court Recorder

S. OSBORNE Transcriber

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PART III - EXHIBITS

NO. DESCRIPTION

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Nil

1996 MARCH 14

(PROCEEDINGS RECONVENED PURSUANT TO ADJOURNMENT)

MR. DOHM: On the Caine matter, Your Honour, Mr. Caine doesn't appear to be here just yet.

THE COURT: How about Mr. Conroy, is he here?

MR. DOHM: He's here. He's outside.

THE COURT: Let's page him.

MR. CONROY: Sorry, Your Honour. These are the extra Hamon (phonetic) transcripts. I misspoke the other day, because when I got back to the office I found out there actually was another Crown witness, but it was one in French, so my office had only copied the English, so this first—sorry, this one, Negret (phonetic), was a Crown witness, but in French, and this is Bonardeau, who is a Defence witness and Marie Andre Bertrand, who is a Defence witness. Those are the—all of the evidence then that was in Hamon, apart from—now, I should say that there's other parts of the transcript that were arguments and submissions and things of that kind and I think now that I think about it, I think Mr. Hamon may have testified, so I assume my friend would want that—any—all testimony, I think my friend—

MR. DOHM: Well, I think that would be quite important for Your Honour to make an accurate assessment of whether or not there is any factual difference in the two cases.

MR. CONROY: You now have all of the experts.

THE COURT: All testimony in the entire trial or on the issues on which the experts testified?

MR. CONROY: You now have all of the expert testimony and my belief is—well, I think we have a—we've got an index in the beginning that gives you the whole—gives you everything that was there, so as I understand it, these earlier documents are the judgments below and then there's argument and then you have Bonardeau, Bertrand, some submissions by Mr. Cloutier. Then, yes, Mr. Hamon does testify in chief and then there's argument and then there's Clayton, Jones, Callant, Smart, Negret and then there's submissions at the end. So the only evidence you're missing at the moment would be Hamon. Now, and I can also get you a copy of what was said by the judge below, what we have in the material is the Quebec Court of Appeal.

THE COURT: Yes.

MR. CONROY: And I've actually had Mr. Benning try and do a translation for me of—a rough translation at the moment of that judgment below. What I'll do is I'll give that to my friend and we can decide whether that's sufficiently accurate for your purposes or not.

But I will then have—

THE COURT: Good morning, Mr. Caine.

THE ACCUSED: My sincerest apologies. I've been circling for about twenty minutes, trying to find a parking space and I'm still looking, so I shall return.

THE COURT: All right. I don't know if we actually dealt with the particular issue of your client's presence at all times during the proceedings.

MR. CONROY: We didn't but I just assumed—

THE COURT: Given the nature of the proceedings, it seems to me that if he wishes to be absent at various times during the proceedings, I don't know if the Crown would have any objection to that.

MR. DOHM: We have no position, Your Honour.

MR. CONROY: I don't have any difficulty with it. I think he'd like to be present probably for—

THE ACCUSED: I most certainly would.

THE COURT: Well, it seems that he does. But there may be times—there has been the odd occasion when he has stepped out during the course of the proceedings.

MR. CONROY: He did step out once and he was then informed that he wasn't supposed to, and so he apologized. He said he didn't realize that. This was just the other day, he popped out to the bathroom apparently.

THE ACCUSED: Yeah.

MR. CONROY: I instructed him that he really should do that on the breaks, but—

THE COURT: All right. Well, I do have the power under the Code to relieve him of the obligation of being present at all times and allowing him to be present

through his counsel and I will make that direction at this time.

MR. CONROY: Thank you, Your Honour.

MR. DOHM: For the purpose of the record, recalling the Caine matter. Present for the Crown are M. Hewitt, A. Chan and T. Dohm.

MR. CONROY: It's John Conroy here again for Mr. Caine, Your Honour.

THE COURT: All right.

THE CLERK: And you're recalling your witness?

MR. CONROY: We're at the stage of cross examination continuing of Messr. Beyerstein.

BARRY LANE BEYERSTEIN, recalled, testifies as follows:

THE COURT: All right. So you're still under oath, you understand that?

A Yes, Your Honour.

THE COURT: All right. You may have a seat.

A Thank you.

CROSS EXAMINATION BY MR. DOHM continuing:

Q Before you and I start to work here today, Doctor, I think I'll just go back to a matter I touched on yesterday and it had to do with the contributors to the Hall report and I mentioned the A.R.F.W.H.O. report of 1981. In that shorthand form, A.R.F. stands for Addiction Research Foundation and W.H.O. for World Health Organization, is that right?

A That's correct.

Q Thank you. In the course of the evidence in this case, all of us have referred to the Addiction Research Foundation as though there were only one such creature. For somebody who hasn't read the material, it might be a little bit misleading. Can you tell us how the Addiction Research Foundations are structured?

A I'm aware of two by that name. There may be more. The two I know of are our own here in Canada, which is a creature of the Ontario government and administratively is situated at the University of Toronto and that is the place at which Dr. Smart and Dr. Killants (phonetic) and Dr. Erickson and Dr. Single and various other people who have been mentioned in testimony work. There was another one associated with some of the teaching hospitals of Stanford University and professors Goldstein and Hollister and other important people of that sort are affiliated with them. Now, I'm not familiar with any others that go by those exact names, but there are, of course, other addiction research facilities around the world.

Q And there's one of similar name in British Columbia, is there not?

A Is it called foundation though? It's—

Q Of similar name.

A It's similar, yes.

Q Okay. Okay, thanks. The A.R.F.W.H.O. report, if one looks at the Hall report, is referred to many times; do you agree with that?

A Yes.

Q In fact, one can find in the Hall report references to Collant or Fair and Collant in excess of twenty, is that fair?

A I didn't count them, but certainly they are well-represented there.

MR. CONROY: I think that that's reference in the material that we have in the Hall report. My understanding being—

MR. DOHM: Yes.

MR. CONROY: -- that there's a number of other volumes to the whole Australian report.

MR. DOHM:

Q I am using the term Hall report to refer to that report in the Crown materials which is authored by Hall, Soloway (phonetic) and another, as opposed to what

you have been describing as McDonald report authored by McDonald and others.

A Yes, that's the shorthand we've all agreed on.

Q I'm using that terminology correctly then, am I?

A It's the way I think we've done so far.

Q Thank you. If there is harm from cannabis use, I'd like you to just accept that part, if there is harm from cannabis use, you will agree as a Canadian taxpayer that any adverse health effects will end up being treated at the taxpayer's expense?

A Given our medical health plan, yes.

Q Could I have the Hall report, please? I want to go back to the Hall report for a few minutes, Professor. And I just want to go through what the Hall report identifies in its summary, pages 15 through 17, of effects of cannabis use, and I'd like you to understand what I'm asking you, so that we don't get sidetracked here.

MR. CONROY: Should he have that in front of him?

MR. DOHM: If he needs it, it might be helpful. Thanks.

MR. CONROY: That's Exhibit—

MR. DOHM: It's from the Crown's—

A 2, I think.

MR. DOHM:

Q -- Brandeis brief, and I'm looking at tab 3.

A 3.

THE CLERK: What exhibit number is it?

MR. CONROY: 5, I think.

MR. DOHM: Exhibit 5. Exhibit 5, sorry.

THE CLERK: Which volume?

MR. CONROY: Volume 1.

MR. DOHM: I'm going to go to page 16, Your Honour.

THE COURT: All right.

MR. DOHM:

Q Now Doctor, I'm not going to ask you to explain why you agree or disagree with these points made by Hall, I just want to ask you whether you agree or disagree with each of them, so under the heading Acute Effects, the Hall report indicates that the major acute adverse psychological and health effects of cannabis intoxication are: anxiety; dysphoria; panic and paranoia, especially in naive users. Doctor, do you agree with that statement or do you disagree with it?

A I disagree with major here, because I don't think these are major adverse effects that happen in—

Q All right. So—

A -- very many people, but they can happen in somebody.

Q Okay. You do disagree then?

A That it's a major thing, yes, I do.

Q Okay. Thank you. Again though, the same preface, the next listed effect is cognitive impairment, especially of attention and memory; do you agree or disagree?

A Yes, that's true, an acute effect.

Q The next same preface is—the next effect listed is psychomotor impairment and possibly an increased risk of accident in an intoxicated person attempting to drive a motor vehicle; agree or disagree?

A Yes, I agree.

Q Thank you. The next listed effect as an acute effect is an increased risk of experiencing psychotic symptoms among those who are vulnerable because of personal or family history of psychoses; agree or disagree?

A Agree.

Q Thank you. The next acute effect listed is an increased risk of low birth weight babies if cannabis is used during pregnancy; agree or disagree?

A I disagree that that’s an acute effect, but yes, smokers of all sorts have lower birth weight babies on average, including tobacco smokers.

Q Next then is the heading Chronic Effects, and we’ll follow the same route through this, Doctor. The preface of the summary for the chronic effects reads, "The major health and psychological effects of chronic heavy cannabis use, especially daily use, over many years remain uncertain." Do you agree or disagree?

A Yes.

Q Agree?

A Yes.

Q The report continues, "On the available evidence, the major probable adverse effects appear to be," the first one listed is respiratory diseases associated with smoking as a method of administration such as chronic bronchitis and the occurrence of histopathological changes that may be precursors to the development of malignancy; agree or disagree?

A Agree.

Q Thank you. Next listed effect, development of a cannabis dependence syndrome, characterized by an inability to abstain from or to control cannabis use, agree—

A Agreed on very small percentage of people.

Q The next listed effect is subtle forms of cognitive impairment, most particularly of attention and memory, which persist while the user remains chronically intoxicated and may or may not be reversible after prolonged abstinence from cannabis. Agree or disagree?

A Agree.

Q And then it lists possible adverse effects, which as I take it from the report, are those that are less likely to arise, is that fair?

A That’s right. These are ones that are not documented well in the scientific literature.

Q As opposed to those listed earlier?

A The others have some support, though it's controversial.

Q These have less support, but are still controversial?

A Are even more controversial.

Q The following are the major possible adverse effects of chronic heavy cannabis use which remain to be confirmed by further research. First effect listed is an increased risk of developing cancers of the urodigestive tract, that is the oral cavity, pharynx and esophagus. Do you agree or disagree that that is a possible adverse effect?

A I can only say somebody has listed it somewhere. I'm not in a position to agree with it because it's not an area of my expertise.

Q You simply don't know in that area?

A I would say so, yes.

Q The next listed possible adverse effect would be an increased risk of leukemia among offspring exposed in utero; do you agree?

A I would disagree with that one based on the critique of Zimmer and Morgan, who show that that research was really quite seriously flawed methodologically.

Q The next listed effect is a decline in occupational performance, marked by under-achievement in adults in occupations requiring a high level of cognitive skills and impaired educational attainment in adolescents. Let's break that into two. The first one would be a decline in occupational performance marked by under-achievement in adults in occupants requiring high level of cognitive skills; agree or disagree?

A I certainly disagree that it's a necessary thing, because I know very, very many high-performing people who in my research have been able to achieve those sorts of things without difficulty in their lives.

Q So you disagree with that first part then, is that right?

A If we say that it's likely to happen in everybody, I disagree. That it could happen in some people, it's possible.

Q I would suggest then that you agree with the report because it lists that as a possible adverse effect.

A It's possible.

Q It's possible that you agree or—

A Oh, sorry. No, no. It's possible that in a very small portion of otherwise normal, not predisposed people with other difficulties, that it could have an adverse effect like that.

Q You'll see, Doctor, that we all search for precision in our own professions in different ways. Don't be bothered if I ask you to deal with the very question. I'll try to remind you to do that.

The second possible adverse effect listed under that heading is impaired educational attainment in adolescents; do you agree or disagree?

A I think the causal arrow goes in the opposite direction there, that children who are not doing well for a variety of reasons, may turn to drugs among other things, but I think the Shedler (phonetic) report, Shedler and Block, that we talked about earlier, suggested it's not inevitable by any means and that there are many high-achieving people in the school system who do use marihuana occasionally.

Q Then you disagree with that, is that correct?

A Largely, yes. Not entirely. It's a very complicated question. It can't really be answered in a yes or no fashion.

Q The next listed effect as a possible adverse effect is birth defects occurring among children of women who use cannabis during their pregnancies; agree or disagree?

A I would have to disagree with that one from my reading of the literature.

Q The next heading identifies a number of high risk groups, and I'm going to ask you again whether you agree or disagree with the proposition made by the Hall report. The first is that they identify adolescents with a history of poor school performance may have their educational achievement further limited by the cognitive impairments produced by chronic intoxication with cannabis; agree or disagree?

A Yes, if they are already experiencing difficulties and chronic means daily use, yes, I would agree with that.

Q The next heading also under adolescents is, and I'll quote it, "Adolescents who initiate cannabis use in the early teens are at higher risk of progressing to heavy cannabis use and other illicit drug use and to the development of dependence on cannabis." Agree or disagree?

A That one again is very controversial, depending on how you define those terms. There may be a small increase in risk, but I think most of the data say that it's very small.

Q Would you then disagree that adolescents in that category are a high risk group?

A In the category of—

Q Those who initiate cannabis use in the early teens are at a higher risk of progressing to heavy cannabis use and other illicit drug use.

A At a higher risk than—

Q Excuse me, Doctor, the Court has a—

THE COURT: I'm just looking at the statement and wondering whether—when it says higher risk, higher than what for who? Is that explained earlier?

MR. DOHM: I don't think it's explained earlier, Your Honour, but I presumed Dr. Beyerstein's familiarity with the material would permit him to answer.

THE COURT: All right.

A Yes. It may be a little higher, but I don't think significantly higher or cause for great alarm.

MR. DOHM:

Q Thank you. The next group identified in that summary is women of child-bearing age, and the report suggest that women who—pregnant women who continue to smoke cannabis are probably at an increased risk of giving birth to low birth weight babies. Do you agree or disagree with that proposition?

A I agree. All smokers are at risk for that.

Q And the next proposition there is that pregnant women who continue to smoke cannabis are probably at an increased risk of—excuse me, and perhaps of shortening their period of gestation. Do you agree or disagree that they are at an increased risk of perhaps shortening their period of gestation?

A Slightly increased in risk, yes.

Q The next proposition is that women of child-bearing age who smoke cannabis at the time of conception or while pregnant possibly increase the risk of their children being born with birth defects; agree or disagree?

A I would disagree with that one. I don't think the evidence really is strong there.

Q The next high risk group identified by the Hall report is persons with pre-existing diseases, and the introduction suggests that persons with a number of pre-existing diseases who smoke cannabis are probably at an increased risk of precipitating or exacerbating symptoms of their disease. These include individuals with cardiovascular diseases such as coronary artery disease, cerebral vascular disease and hypertension; do you agree or disagree with that proposition, Doctor?

A I would disagree with the precipitating aspect, but I suspect that in terms of exacerbating pre-existing symptoms, that could possibly be true.

Q The next proposition is that persons who smoke cannabis are probably at an increased risk of precipitating or exacerbating symptoms of their disease, including individuals with respiratory diseases such as asthma, bronchitis and emphysema; do you agree or disagree with that?

A I would agree with that.

Q And the next group who are probably at an increased risk of precipitating or exacerbating symptoms of their diseases are those with schizophrenia.

A Again, I would disagree with precipitating. The Pope research found no support for that, but if they're already suffering from schizophrenia, it could exacerbate some symptoms, yes.

Q Pope is a report that found no support for that, but other reports have found support for that proposition, I take it, is that fair?

A They have claimed that, but Pope's review of the literature showed that the methodology was really insufficient to support that conclusion.

Q And the last category people identify as being as high risk or higher risk are those individuals who are dependent on alcohol and other drugs who are probably at an increased risk of developing dependence on cannabis; would you agree or disagree with that?

A Yes, if they are dependence-prone personalities, they're at an increased risk to develop dependence on any other psychoactive substance.

Q Thank you. Many of the conclusions reached by the Hall report are very similar to those reached in the A.R.F.W.H.O. report of 1981; would you agree with that?

A Yes, they agree.

Q And the A.R.F.W.H.O. report, like the Hall report, was one that was put together following a symposium, I suppose, one could call it, internationally recognized and respected scientists and professionals in their own fields; do you agree with that?

A Yes.

Q They are not what one might consider to be some sort of friendly group on the outside, on the periphery of science, fair enough?

A Yes, I think so.

Q You said something a few minutes ago which you said earlier and that is that from your research, you have found that there are significant numbers of people who have used cannabis for some periods of time who are, if my note is correct, among the best and brightest and the most productive; do I understand your evidence correctly on that point?

A Yes. We have seen people like that in our research.

Q What sort of research is that?

A In the drug studies laboratory, my colleague, Dr. Bruce Alexander, has polled his students over many years about their drug use patterns, about addictive behaviour and looked at their achievements in life outside the classroom and within, and he has summarized a lot of that in his book Peaceful Measures, and it's certainly apparent to his surveys that there are a lot of those people out there.

Q I understood from your answers, and please correct me if I'm wrong, that you had come to this conclusion from your own research.

A From my own interviews with people, yes, I have.

Q And were there any studies or reports made as a result of those?

A I haven't published those data, no. Because it's well-known. I don't think a journal would accept such obvious material. They want new material.

Q So then that research then is—would be old research and would be repeating things that others have already dealt with, is that right?

A It's just generally accepted in the field of psychopharmacology that there are many people in academia, in the professions, in the arts and sciences and elsewhere, who have been using marihuana for a long time and have continued to achieve and perform at a high level in their fields.

Q There are different levels of research, I take it then, in the work that you do, and the research that you have just described from your own interviews, et cetera, I understand it would be a less formal type of research than one might think of if one were comparing it to something like the McDonald report, is that right?

A In my particular case, yes.

Q Okay.

A And we have, again, Pope's research where he compares high-using and low-using college students in his vicinity and finds no difference on demographic variables, which include things like earning capacity and other conventional measures of success in society.

Q Now, I'm going to ask you to help me out on an slightly different topic, if you can, please. I'm going to change direction here a little bit and go into the impaired driving concept or area. You have given evidence that physical tests such as roadside tests would demonstrate marihuana intoxication; do I understand you correctly there?

A It depends on what you mean by physical tests there. I mean, we're talking about eye/hand coordination or reaction time, if anybody is impaired for any reason including lack of sleep or drug intoxication or alcohol intoxication, then an actual measure of performance would show a decrement if whatever the variable was was impacting on that particular psychological system.

Q I understood some of your earlier evidence though to be that people who use marihuana regularly become quite good at controlling through the tolerance effect their behaviour for periods of time when they're under observation. Did I understand that correctly?

A That's true of all drugs, that when people become tolerant, they're not as badly effected or they don't get as good effects, if that's what they're looking for either. That's what tolerance is.

Q Does tolerance mean people are not intoxicated or does it mean that they do not show the symptoms of intoxication as readily?

A There are actually three different kinds of tolerance, but I think we're talking about behavioural tolerance here, and behavioural tolerance means that with experience with the drug, it doesn't have as much effect on that behaviour however it's measured.

Q Okay. The—would it be fair of me then to assess another part of your evidence as indicating the problem with marihuana is less that it's a direct inhibitor of the psychomotor coordination and reaction time and more that it tends to make people distractible? Is that a fair representation of what you've told us earlier?

A Yes, I think it is.

Q So in the impaired driving situation, is there not another factor here that aside from whatever detriment there may be to psychomotor coordination, you have the possibility of people driving along, being distracted by things and missing a light or missing some other thing that they should be paying attention to, is that right?

A Yes.

Q And that can happen even though one might not be able to discern defects in psychomotor coordination using the standard sort of roadside tests that we have discussed?

A It would be discernible on other kinds of tests though. I mean, there are tests of sustained attention that would pick that sort of thing up. That's how we know about it in the first place from laboratory studies.

Q All right. That's very fair, but in order to do that, you would have to take a driver into a laboratory somewhere and put him under those tests, correct?

A At the present time, but people are miniaturizing and making portable all versions of these laboratory tests now that are potentially hand-held and could be easily carried in a police cruiser or breathalyzer van or something like that.

Q Okay. But at the present time, my statement was correct?

A As far as I know, although there are prototypes of the smaller version, portable versions that I know are available from a company in San Francisco, for instance.

Q You also indicated the only way to measure the percentage of THC in one's blood is by blood sample?

A Yes.

Q Would these devices do that?

A No, we're talking about—or we were talking about behavioural test measures so no, they wouldn't be invasive measures like that.

Q Change topic again. Early in your evidence, I think it was back in November, you listed at the request of my learned friend, Mr. Conroy, the major studies that have been done on cannabis over a number of years. Do you recall that?

A I recall the event, yes.

Q Do you recall what you listed?

A I think I started with the Indian Hemp Commission, the Laguardia report, the Institute of Medicine report of the National Academy of Sciences and the Ledain Commission and then ones that have been introduced in evidence in this trial. I believe that covers them.

Q Your memory is pretty good, but do you recall whether or not you mentioned the A.R.F.W.H.O. 1981 report?

A I don't think I did, because it was already mentioned in the—in the Brandeis brief, so I think I was—

Q The others were all mentioned in the Brandeis brief too, weren't they?

A Probably, yeah.

Q Why did you mention them and not the A.R.F.W.H.O. report?

A Just simply omission and it was not motivated by anything.

Q Okay.

A My memory isn't perfect, despite your compliment.

MR. CONROY: I don't think the Indian Hemp Commission or LaGuardia are in the Brandeis brief, are they?

MR. DOHM: Many of the others are. Sorry.

Q I'd like to change topics again, Doctor, go on to THC content. In your examination in chief, Mr. Conroy put to you a claim that marihuana potency has increased substantially and I understood your answer to be that the mean percentage of THC in seized marihuana from 1981 to 1993 -- excuse me. I understood your answer to be that demonstrated no great increase in mean percentage of THC content. Do I understand you correctly there?

A Not all studies have found that increase. Different geographical locations have compared seized samples, for instance, and not all have found that, but I think it is true that in most areas there has been an increase in the THC content in the product that's being produced by local growers.

Q Would you suggest that that Mississippi study, Mississippi trend, would be portable to British Columbia, for example?

A I haven't seen the actual numbers but my informants tell me that that probably is true.

Q On that basis, what is your view of the current levels of THC content in British Columbia?

A They are—or they have increased. I don't think they're likely to increase too much more, because there's a limit biologically to what they can do, but there have been increases.

Q And are you familiar with what the percentages are?

A Not recently, I haven't looked at them, no.

Q When we talk about the THC content of cannabis, there are a number of things that you have said about it, such as the titration phenomena, if I could call it that. And as I understand your evidence, your view, your opinion is that the greatest potential harm from cannabis use comes from the smoking aspect of it, as opposed to the psychoactive aspect of it, is that a fair understanding of your evidence?

A Yes.

Q That opinion is based on your opinion that there are no real major problems that flow from the ingestion of the THC, is that right?

A Not in occasional recreational users. I don't see any evidence that it causes severe or harm, the THC itself.

Q If—now, I understand that you—where you're coming from. I understand your position, but I just want to put to you another alternative. If the psychoactive aspect of the THC were generally harmful in a sense that you would accept, would not then the increased THC content be a matter for concern?

A No. Because that's what titration is, that when people use a drug for psychotropic effects, one of the things they have to do is to learn to monitor the effects, to introspect, as it were, and see when they are approaching the desired level of whatever effect they're seeking, and if a person is using a more concentrated substance, put this in the context of alcohol, for instance

if someone's drinking whisky or other distilled spirits as opposed to low alcohol wine, they'd sip it at a slower rate and smaller gulps and in the same way with higher potency THC, what titration means, what Reece-Jones testified in the Hamon case does happen, is that people take fewer drags on the marihuana cigarette and they hold it in their lungs for shorter time and monitor the effect the same way, so they're trying to reach a certain subjective effect, which they monitor very carefully and if they get there with a more potent substance, they just simply do it faster or without actually changing the state that they get into.

Q Thank you. Do you recall telling us that people probably ought to eat cannabis if it weren't so expensive?

A I did say that other methods are capable of producing the subjective effects and that the alternate methods are safer because we have agreed that smoking is not a healthy activity and so if it weren't that the expense was pushing people to smoke it because it's a more efficient way of delivering it, that would probably happen, yes.

Q See if we can—thanks. Can you tell me what studies have been done that support that proposition that people would probably opt to eat cannabis if it weren't so expensive?

A Well, people have always done it, of course. I mean, you can look back in history and look at the French writers Baudelaire and Victor Hugo and the club of Hashisheens (phonetic) in Paris. That was their preferred means of doing it. In the Middle East, it's often or more probable that people will orally ingest rather than smoke THC containing materials, so it's always been an option. It's a cultural thing and I don't know that the expense aspect is the most important aspect of all this. I think my—the thrust of my earlier comments were that there are other ways of taking the drug that are less dangerous than smoking and if that is a legitimate health concern, then if that becomes widely known, people will probably opt for other ways of ingesting the substance.

Q Do you remember what the question was?

A Your question?

Q Yes.

A Oh, about—do I know of any studies where people have actually looked at cost versus eating versus smoking, no, I don't think I do.

Q Do you know what studies have been done on the comparative expense of cannabis compared to other psychoactive substances?

A I know Neil Boyd deals with that sort of thing. I'm not personally on the—off the top of my head able to cite those figures, but I do know Neil cites them in his work.

Q What leads you to the conclusion that it is expensive?

A Just that we know that when the substance is eaten, it has to get absorbed through the gastrointestinal tract and into the bloodstream and it actually passes through the liver before it continues on through the bloodstream into the brain, where THC has its effect and the liver detoxifies a certain percentage of it, it's called first past metabolism, and therefore I think it's generally accepted in all psychopharmacology texts that it takes more by the oral route to achieve the same subjective effect than it does by the smoking route.

Q So again, are you telling me that it's not the cost so much that is involved in the preference for smoking over eating as it is the hesitation or delay in getting the effects of the substance?

A I think they're both a factor.

Q Would you agree or disagree with the statement that cannabis is the cheapest high, licit or illicit, that is available?

A The cheapest by weight or by psychotropic effect or—

Q By what you need in order to get the psychotropic effect.

A I know price has been going down because the supply and demand factors really are the things that determine the price and supply keeps going up, so it probably is cheaper, but I don't know. I'm sorry, I just don't have those figures.

Q It could well be that cannabis is not as expensive as you may have presumed, is that right?

A As I have presumed?

Q Yes.

A It's certainly not terribly expensive, no.

Q If it's not terribly expensive, then why is it that people are not opting to eat it over smoking it?

A Again, I think it's primarily a cultural matter that what people in one historical and geographic situation have done doesn't necessarily impact on others and how it's introduced to people becomes the habitual way that they generally pursue it from that time on.

Q Okay. Change topic again, Doctor. Earlier in your evidence, I think it was back in November, you indicated that one of the reports given by cannabis users is that sex is more enjoyable; do you recall that?

A Yes.

Q And do you recall that you gave that answer in response to a question from Mr. Conroy on any effects that cannabis may have on fertility?

A Yes, I think that's right.

Q And do you recall what your conclusion was of the reports that sex is more enjoyable mean that cannabis certainly does not have any effect on fertility?

A Well, it isn't necessarily affected with fertility. I don't think that was the point. The point was whether THC has an effect on the endocrinological system and on hormone levels and we know that sexual performance and sexual enjoyment is dependent on an adequate functioning of the endocrine system and if people in surveys, which they have done over the years, consistently report that sex is more enjoyable, well, it must mean that they're first of all engaging in it and probably engaging in more of it which argues that whatever measurable effects there may be on the endocrine system are not sufficient to have been noticed by the users themselves or to show up in any surveys of sexual dysfunction.

Q Okay. Well, that may have been the point you were trying to make. I'd like to touch on what you actually said though. Can Dr. Beyerstein be given a copy of the transcript, 1995 November 27th, also contains the July 7 transcript. Is there a copy of that available that he could look at?

THE CLERK: Is that an exhibit?

THE COURT: Transcript.

MR. CONROY: It's a transcript.

THE COURT: Of earlier proceedings.

THE CLERK: I just have exhibits, Your Honour, so if it's not an exhibit, I don't have that.

MR. CONROY: Well, I have duplicate copies of the transcripts, so there should be an original around somewhere. My friend has one. You don't have the original, do you?

MR. DOHM: I have a duplicate as well. Perhaps—

MR. CONROY: There should be an original in the file. Well, what page are you referring to. If mine's clean, I can maybe put mine—

MR. DOHM: Page 40.

MR. CONROY: Of what book?

MR. DOHM: Of the transcript dated July 7 and November 27.

MR. CONROY: Page 20.

MR. DOHM: Page 40.

MR. CONROY: Mine's clean.

MR. DOHM: Thanks.

Q Now Doctor, I'm going to direct your attention to page 40 of the transcript of July 7 and November 27, 1995. If you would look at line 23, there is a question from Mr. Conroy, "All right, how about effect on other parts of the body, reproductive system for example, from marihuana?" And you answer, starting at line 24, and you went down to line 34. I'd like to draw your attention to line 34, and I'd like you to look at the lines that read, "In fact, again if you go out and you survey people who use marihuana recreationally and you say, 'Well, what are the things you like about it, what keeps you willing to do this,' one of the things they say is that they find sex more enjoyable, so it certainly doesn't have any effect on fertility on any kind of endocrine functioning that has an adverse effect that any of these major surveys may have been able to demonstrate." Stop there.

Now, the part that draws my attention is your answer that says, and I'm going to stop partway through it, "One of the things they say is that they find sex more enjoyable, so it certainly doesn't have any effect on fertility..."

A I would agree that that particular statement, one doesn't imply the other, but I also have never seen any study which shows that those in the population who use marihuana have a lower birth rate, and that's what you would need to be able to demonstrate in order to say that it effected fertility per se.

Q But you were drawing the conclusion that there's no effect on fertility because people tell you that cannabis makes sex more enjoyable.

A Yes, and the reason for that is that fertility is a function of endocrine adequacy, if you like, and so is performance and enjoyment of the sex act, and so the likelihood that fertility would be adversely effected is in fact related to performance of sex itself, so I agree that that particular statement doesn't imply that just because people have sex that fertility couldn't be effected, but I would also say that no one to my knowledge has ever shown a proper epidemiological study that demonstrates that marihuana users have a lower birth rate and even if you did, you'd have to then factor out any possibility of a confound like marihuana users might also be more likely to use birth control and all that would need to be worked out in the study before you could say conclusively that it had an effect on fertility and I just don't know of any study that has ever conclusively shown that it does.

Q That's all well and good, but I'm going to stick with your premise and your conclusion as stated under oath to the Court. Let's put it this way. Were I to say to you, Doctor, Doctor, I use cannabis all the time, I am able to enjoy sexual activity; therefore, I am fertile. If I said that to you, Doctor, you would be fully correct in saying to me, sir, there is no scientific basis for that conclusion at all, wouldn't you?

A Yes, as put there, that's correct.

Q Thank you. Okay. Let's change topic here. We'll go to the anandamide (phonetic).

A Anandamide.

Q Anandamide. Thanks. That's a discovery of—that's related to the discovery of the receptor areas in the brain, is that right?

A Yes, they first discovered where marihuana, THC, binds and then later identified the endogenous

substance that the brain makes itself that fits those receptors.

Q And that is a helpful discovery, no doubt, in the continuing investigation of cannabis and its effects?

A Yes, it is.

Q And it is certainly not the end of cannabis research.

A Oh, hardly.

Q What it does is it tells researchers the place in the brain where cannabis works, is that right?

A That's correct, or places, we should—

Q Places.

A Yes.

Q Because there'll be a number of these. They're like parking spots, aren't they?

A Yes.

Q It does not show how it works though?

A Actually, we do know quite a bit about that. Professor Howlett and her colleagues and Herkenheim (phonetic) and Miss Crulum (phonetic) and other people deduced where those receptors would be partly by knowing the kinds of mechanisms that are involved in ionic transfer across cell membranes and so we—I would never say we have a full understanding, but we have a reasonable understanding of how those mechanisms work.

Q The fact that you know where the receptors are, which is a new discovery, does not tell necessarily what it does or how it works?

A Well, actually it does, because one of the nicest aspects of that research is that the biochemists were able to identify where the receptor sites were and when they presented that to the physiologists, it made sense immediately, because we as physiologists have been trying to understand for many years what the different parts of the brain do and what psychological attributes they're responsible for and it turned out that the receptors when they were identified, were in known biochemical and anatomical systems in the brain that

were already known to be involved with the particular psychological functions that were known to be acute effect—effected acutely by THC and cannabis in general.

Q Okay. Thanks. Another study, and I'm going to change topics here again, let's go on to the Freed study on the Ottawa prenatal prospective study.

A Yes.

Q At the beginning of your evidence, you earlier on in your evidence, you indicated that there is—that the evidence that there is any long term serious harm to the offspring of mothers who smoke cannabis during pregnancy was quite poor; that's my understanding of what you said. Would that be fair?

A I wouldn't say poor. It's not strong, however.

Q Okay. Was that before or after you had read Dr. Freed's report which we provided before we recommenced last week?

A It was before I had actually looked at that particular one, but I had seen other surveys that had reviewed it and I had concluded that it was only on one indicator out of many that had been tried and that the exposed children at three years of age in—on some indicators had actually done better than the not exposed children, which indicated to me that it wasn't likely to be a serious effect that was going to hamper these children in later life.

Q Freed didn't write his report in any alarmist way, did he?

A No. No, I don't think he did.

Q What he said was that this showed to him some concerns that long term harm might not show up in the early studies.

A Yes, and he also admits that there are other possible explanations for why these differences might show up so late, as well, when they hadn't been able to show them for so many intervening years.

Q How would you describe the effect of the Freed report?

A Well, I've never advocated pregnant mothers using tobacco, alcohol, marihuana or even medically indicated things that aren't required.

Q Let me interrupt you, because I don't think that Dr. Freed's doing that and I don't think that there's any suggestion that anybody is suggesting that you advocate that they do that.

A Oh, of course not. No, no.

Q What I'm asking you is—

A I'm not implying that either.

Q -- what do you think is the effect of the findings of Dr. Freed?

A They are interesting and they need to be replicated. In science, no single study ever settles a controversial and complex issue and so when this is replicated by other labs, if it is, that will indeed be cause for giving it more prominence and raising more concern, but at this point it's—I think the way Dr. Killants described it in his Hamon testimony is it's a warning, it's not a cause for deep concern.

Q The matter of replication is something that you are familiar with as a social scientist. Now, it's not necessarily something that we're all familiar with in the courtroom here. As I assess your last few answers, I infer and I'm asking you to correct me if I'm wrong, that if a study is a unique one, has not yet been replicated, that one should not pay too much attention to it. I'm not—

A Oh, no. No, in fact one should pay attention to it if it's of interest theoretically or practically, but we should also note that many well-done studies, through no fault of the people carrying them out, turn out not to be replicable and when you're dealing with highly complicated multi-causal phenomena, when use statistical means to tease out small effects, there are many artifacts that can cause a statistically significant result in one study that people just don't have the way of identifying in their own research, because they just don't know it's there and that's why before we're convinced of something and call it a fact in science, it has to be something that's sort of commonplace observation by people in the field, where it becomes easy to demonstrate by everybody who goes out and does the same thing, because if we don't do that, any

given result could always be an artifact. It could also be a statistical artifact that the way statistics are used in science, five per cent of every—sorry, five per cent of all so-called statistically significant results will turn out to be statistical artifacts and so that's why a single study can't be relied on to be the final word. It's only when you look at the whole corpus of data in a field and some competent overview is given in the field to say—now this is emerging as a trend that all or most of the people in this field recognize that we should then taken it as a valid scientific fact that could direct social policy or some other use.

Q The scientific requirements then for recognition of a trend, do demand a very strict demonstration of their underlying premises, is that what you just told me?

A That's right, and that other people in the same field, following the same protocols, are able to get the same result repeatedly.

Q You essentially look for proof that cannot be disputed in any logical or scientific way?

A The way we describe it is the preponderance of evidence. It's not entirely unlike a courtroom procedure where—and when you're dealing with complex systems, there will sometimes be one set of results that say this is the case and others that dispute it and what the scientific field generally does is looks at the entire corpus of evidence and says at this moment in time the preponderance of evidence is in favour of this hypothesis and science always accepts hypotheses provisionally with the expectation or at least the possibility that something else may come along that is done with a larger sample size, for instance, which will increase our confidence in the results, with better experimental controls in the situation, with better exclusion of competing compounding variables and as all of this gets done by numerous other people in the field and the results all move in the same direction, then we become increasingly confident that we're on the right track.

MR. DOHM: Thank you. Your Honour, I note that my friend from the Provincial Attorney-General's office is here. I can break any time it is convenient for you, so—

THE COURT: All right. Well, based on the estimate of time for that matter, perhaps now is a convenient time to break in the Caine case, adjourn probably for about twenty-five minutes to half an hour.

MR. DOHM: Very well. Thank you.

THE COURT: And we'll deal with the Provincial matter. I remind you again, sir, that you're still under cross examination, so you're not to talk to anyone about your—

A Yes, Your Honour.

(WITNESS ASIDE)

(OTHER MATTERS SPOKEN TO)

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

MR. CONROY: Your Honour, Professor Beyerstein advised me that unfortunately, he has to be up at Simon Fraser University to teach a class of about a hundred people at—by 2:30, and so I'm wondering if we could sit until 12:30 or quarter to one. My friend has estimated that that's how long he'll likely be in cross, simply so he can get away, rather than break up the cross.

THE COURT: That's fine with me.

MR. CONROY: Okay. Thank you.

MR. DOHM: Recalling the Caine matter, for the record.

BARRY LANE BEYERSTEIN, recalled, testifies as follows:

CROSS EXAMINATION BY MR. DOHM continuing:

Q All right, Doctor, back to work we go. Let's—occasionally, when thinking about a psychologist, which is one of the things that you are, I take it, I think of a person who treats individuals sometimes or groups practising in a counselling type way; is that one branch of psychology?

A Yes, that's called clinical psychology.

Q Okay. Does that require any specific licensing or qualifications in British Columbia?

A Yes, it does. The Psychologist's Act empowers the college, B.C. College of Psychologists, to license and register clinical psychologists who are allowed to use that name.

Q Have you ever practised in that field of psychology?

A No, I am not a clinician.

Q Yesterday, you used the terms cautious experimentation when you were talking about a number of policy options and I understood that to relate in a bit to something you said just before we broke about the need to go about your studies in a careful way. Was that a fair relationship for me to draw?

A Yes. One should always be careful and one should always make decisions based on data. Sometimes the data aren't there, so it's cautioned in the way you say, also cautioned in making sure that good studies are done in parallel so that the effects of the actions can be properly evaluated.

Q So from your point of view as a psychopharmacologist and as a social scientist, an experiment should not be one that is uncontrolled, if you could possibly avoid that?

A In science we use the term control to mean something I think different from what you're implying. Clearly, it should not be uncontrolled in the way I use the term in experimental control, but I don't—I would like a little elaboration, please, as to exactly how you mean the term control.

Q Well, you need to have noted base lines to measure things from, for a starter.

A Yes, of course.

Q You need to have means of changing the direction of your project quickly should the need arise.

A That would be ideal, yes.

Q Science doesn't encourage people to head blindly down unknown avenues, is what I'm trying to suggest; that the social science field is one because it relates to human relations so closely, is a field that tries to advance with great care. That's what I mean by control.

A Yes, or it recommends the policy makers who act on data from social and behavioural sciences do so in a careful manner, yes.

Q I want to go back to something you gave evidence on I think it was yesterday when you're talking about the report of Abood, A-b-o-o-d and Martin, which is in the Crown's brief. Do you recall that report?

A I do. I wasn't terribly familiar with it, I think I said at the time, but I looked at it as we discussed it.

Q Where I became confused was when you talked about their mixing the terms use and abuse and I have to confess I got a little lost there. Can you tell me what the difficulty was in the mixing of those terms from your point of view?

A Yes. I think it would be quite wrong to imply that all users are subject to any adverse effect psychologically or physiologically and where the possibility exists of adverse effects is when somebody abuses the substance, which means they take it at certain times that would not be advisable or they have pre-existing conditions that make it inadvisable for them or they use it in too great amount and too frequently, which constitutes abuse, and what the statistics show is that most people who use psychotropic drugs don't fall into those categories, and so it's a valid distinction between those who use without any harm and those who abuse and by definition abuse means that they encounter some personal difficulty or some other adverse effect.

Q So the problem there is that—is their definition of abuse, is that right?

A Yes, they didn't sufficiently distinguish between those people who use and show no harm for it and those small group of people who are in fact harmed, and they are the abusers and they're quite a different group of people from the ordinary recreational users.

Q I think that the term is used to describe was that they were arbitrary in their terminology, is that right?

A I don't recall that. I'm sorry.

Q I'd like to now then turn to the Nadelman (phonetic) paper that you discussed a little bit yesterday in your examination in chief, and I'd like to just make sure that I understand your evidence properly first. As I

understood your evidence, you were indicating that Nadelman's position is that every policy option has costs and benefits and that the two must be weighed.

A Yes.

Q I took it that you were in agreement with that general statement.

A Oh, yes.

Q You also left me with the impression that changes should be made on the best scientific evidence which is available at the moment.

A Yes, I would agree with that.

Q So I understood you correctly then?

A Yes.

Q Thank you. Now, you are a person who is a long-time proponent of changes to Canada's drug laws, correct?

A That's true.

Q Would it be fair to suggest that your proponency has existed since pre the Ledain Commission?

A No, not really. I hadn't really thought very much about it up to that point.

Q Would it have started with your involvement around the time of the Ledain Commission?

A Yes, and I think when I read Edward Brecker's book was a turning point as well, Licit and Illicit Drugs.

Q Can you help us out by suggesting when you may have read that book?

A I read Brecker about 1973/'74, something like that.

Q In the course of your advocacy of changes in the laws, you have appeared before a variety of policy-making and policy-influencing bodies in Canada, is that fair?

A Yes, I have.

Q And what would you estimate your appearances at, a dozen, two dozen?

A Oh, I think that would be high. I'm not quite sure how you're defining bodies here. I mean, I've certainly given public lectures and debates and television and radio debates and that sort of thing and if you included all of those, it would probably be in that range. In terms of formal presentations to various bodies, it's probably fewer than that.

Q When was the last time that you appeared before a committee struck by any body of the Federal government on this topic?

A It would have been my appearance before the Standing Subcommittee on Health which was debating the Bill C-7, The Controlled Substances Act, and that would have been 1994.

Q And when you—how long was your appearance before that Standing Subcommittee, a matter of hours or—

A Oh, I was there as part of a group invited from the Canadian Foundation for Drug Policy and so it was probably half an hour, I think.

Q So given the opportunity to do so, I would assume that you provided them with all the guidance that you could on drug policy matters in the time that you had?

A I tried.

Q And most of the studies that you have referred to in the course of your evidence were in existence at that time, right?

A The majority were.

Q Can you think of any, and feel free to take a minute to do this, but can you think of any that were not in existence at the time that you appeared before the Standing Subcommittee?

A Yes, I think some of Dr. Pope's work that we've referred to here is an example of that sort and the Morgan and Zimmer review hadn't been done at that time either.

Q Do you have any evidence that the government of Canada does not have the Dr. Pope paper or the Morgan and Zimmer paper?

A No, I don't know that they don't.

Q You would actually expect that they would have that available to you?

A I would certainly in the government libraries because they're published in standard journals in the field that they would take.

Q One of the materials provided that—I'm changing topic here, so don't let me lose you. One of the materials provided at tab 15 of your Brandeis brief is a booklet entitled Questioning Prohibition; International Anti-Prohibitionist League seems to have put it out and they claim to be federated to the radical party. Are you familiar with that book?

A That was one in response to Mr. Conroy's questions I said I had lifted a few figures from for talks and that sort of thing, but I haven't actually read it from cover to cover.

Q Not asking you if you adopt that particular document, but I do want to know if you know what the radical party is.

A I know what the International Prohibitionist League is. I don't know very much about the radical party per se, other than I've met one or two of its members at international conferences.

Q You will agree with me that the book Peaceful Measures by your colleague, Professor Alexander, is a book that proposes a variety of policy options?

A Yes, I would.

Q And the same for the McDonald report from Australia, that is a proposal of policy options?

A Yes, it is. I think we'd probably say recommendations as well as laying out the options.

Q Recommendations tend to go with options in the course of human events, don't they?

A Quite so.

Q Few of us are so unimpressed by our own opinions that we don't recommend that others take them. You'll agree with that?

A Yes.

Q Can you direct your attention now, please, to the Shedler and Block study that you referred to yesterday? That is a study, and I'm going to ask you to refresh me about the—that study because I didn't get a good understanding of how you explained that. Can you tell me what that study was about, please?

A Yes. Jack Block is a professor at the University of California, one of America's leading researchers in child development and development of personality and Jonathan Shedler was a junior colleague of his and they began many years ago a longitudinal study where they took what they call a cohort, a defined group of in this case children, at very young age and subjected them to a battery of psychological measures and then kept in touch with them at periodic intervals as they matured and then retested them at each subsequent time and clocked over time the development of various aspects of personality, social behaviour, certain academic and cognitive skills, that sort of thing, and among the measures that they took were measures of drug exposure or lack thereof, and level of usage and what they then did at the age of eighteen was to look at these groups and compare on their battery of psychological measures the students who had had no experience with psychotropic drugs of an illegal sort, those who had experimented somewhat but had not—had not progressed to what we defined earlier as abuse, and a group that had used to the point where I think it would be safe to say they were abusing.

Q Okay. And they came to certain conclusions, but before we get to that, if we need to, you use the term longitudinal study. Is that similar to the term prospective study?

A It's not quite synonymous, but it is—one in some ways implies the other. Longitudinal means that you take a group of people and use those same people repeatedly throughout whatever period of their lives you have the resources to follow. Prospective study implies that instead of looking at people in the here and now and seeing how they are and then look into their pasts and hope that you can find something they have in common that might account for how they are now, you have the luxury in a longitudinal study to have base line data

that's missing in a retrospective study, so you start with that cohort and you measure them before they're ever exposed to anything that you might be interested in studying the effects of, and so then as the longitudinal study progresses, you can clock changes over time and you can see, in fact, what they were like before the variable in question came into play.

Q Okay. Bear with me here. I can tell that on a retrospective study is that's where you look at people are now and you look backwards and you've explained what a longitudinal study is where you follow people over a lengthy period of time and I'm still unclear in what a prospective study is.

A Prospective studies—you see, the problem is if—if you see a group of people, say, who have a psychological problem now, they may not be typical of everybody who had the same experience that they had or they may be. We just don't know, because we don't have that background to compare and so we can infer that something had happened to them might be the cause of their present state, but we can't logically conclude that it was, so prospective means that you look at everybody in a defined group, I mean all people entering high school—or sorry, entering the public school system in the city of Vancouver this year and then you follow them prospectively into the future and you look at people who—you look at everybody each time and then you can say well, look, these people now are affected in the way that we can measure and they did this, but look over here. Here's another group of people who did this, whatever that might be, that same thing, and they aren't affected in the same way, so we know that whatever that variable is that happens to be in the background of those people who were, say, adversely affected on our measure, couldn't really be the cause of what they are now experiencing, because other people had exactly the same experience. You have that huge background to compare it to. Others had the same experience, but didn't go in the same direction.

Q Is—would that term prospective also apply then to the Shedler and Block study?

A Oh, yes.

Q Now, I also took from your comments on the Shedler and Block study that is one that you agree with and of which you approve, is that fair?

A Yes.

Q Okay. And I may have misunderstood you, but I thought that you had indicated that that was the only prospective study of its nature.

A If I said that, I probably was in error. I don't know of any others. Certainly not that were as large scale as that, but it's certainly one of few, that I think is true.

Q So this is a study then which has not been replicated?

A Not yet, no.

Q So it's in no different position from the Freed study that we discussed earlier as far as replication is concerned then?

A The difference there is the length of time it's been going, that it's a much longer longitudinal study, starting very early in life and on into young adulthood and so it's a self-replicating study in a way, but nobody else has actually done exactly the same study again to see if they get the same results.

Q Thank you. You also mentioned in the course of your evidence, I'm going to change topics again, a study by—oh, excuse me a minute, please. I'm sorry, I was looking at the Slicker (phonetic) report of 1992 where we described that monkeys were given certain amounts of cannabis for periods of time and they were eventually autopsied and the brains were examined to see if the use of cannabis had had any effect on the structures of the brain, is that correct?

A Yes, that's right.

Q And you emphasized that the brains showed no structural change after what you described as pretty heavy use of cannabis, is that fair?

A That was the conclusion of the authors.

Q Okay. Would you agree with that?

A Yes.

Q Okay. Would you also agree that structural changes are not required in order for there to be behavioural or functional changes?

A No, I think there have to be structural ones. It may not be apparent, depending on the measure that is

available at the time or utilized by the particular researcher, but we talk about microstructure and macrostructure and if you're referring to macrostructure, then yes, there may not be something that's obvious in a gross anatomical autopsy that might be at a level that is beneath that which technology can detect.

Q Okay. You also discussed addiction yesterday and you described that as being more a function of the person, rather than of the drug.

A Yes.

Q You agree that the drug is a factor in matters of addiction?

A For those who become addicted to it, it is, yes, but there's no drug that addicts everybody.

Q No, but would you agree that there are some drugs that appear to have a more addictive character than others?

A It's popularly held, but in fact there isn't a lot of good scientific evidence for that, that what's thought of as a terribly addicting substance at one time and place is often in other cultures at different times considered quite benign and unremarkable and so addiction is more likely to occur at certain times than others and there isn't a lot of evidence that one drug is in and of itself more addictive than the other.

Q There is some, however?

A There is some.

Q And you could say the same for dependence, various drugs seem to have a greater propensity to create dependence in people who use?

A Yes, I would agree with that.

Q Obvious examples would be alcohol is one that seems to create some strong dependence in people and—

A It can do. It doesn't in most social drinkers, however.

Q And heroin can create apparently very strong dependence in users?

A It can, although remember we're—dependence now we're talking about a physiological change that will cause withdrawal symptoms when people stop, and so most heroin users probably aren't dependent because they don't take enough over a short period of—short enough period of time to show withdrawal symptoms when they stop.

Q No, but if—

A But it can.

Q You just have to take enough over the right period of time—

A That's right.

Q -- with heroin.

A That's true of all dependence-producing substances.

Q I would like you to help me to clarify some of your comments on the topic yesterday, and I'm not exactly certain where it arose in your evidence, but we were talking about increasing claims of addiction to marihuana and you explained to us that this was actually not increasing addiction to marihuana but was caused by wide-spread urine testing; do you recall that portion—

A Yes.

Q -- of your evidence?

A Mm hmm.

Q And the theory you gave us, as I understood it, was that people in the work place, being found by the urine testing, are given the option of taking a treatment programme by their employers often and in order for that treatment programme to be paid for by the insurance company, they have to claim that they are addicted.

A It helps if they do, yes.

Q Did I get that right there?

A Yes.

Q Okay. Thanks. Is there a study on that?

A Where I heard it reported was at a meeting of the Drug Policy Foundation. I don't remember whether it was the most recent one or two years ago, but it came up in the context of a discussion panel on marihuana.

Q And whose opinion were you repeating there?

A It would have been somebody on that panel and I'm sorry, I just don't remember the name offhand.

Q What research had they done to come up with that explanation?

A It had been a poll of people who were in employee assistance programmes, I think.

Q Was there ever any research paper published on that point?

A Not that I can cite, no, but that was the conclusion of the speaker on that panel.

Q This is one person out of a number who would have been aware of the increasing claims of addiction?

A Yes. In fact, everybody on the panel agreed that that was a valid conclusion from their experience, as well.

Q And what studies had they done?

A These were people who were involved in the treatment facilities and in research—or research on which treatment was based, and so I think they were relying on their personal experience, rather than formal research at that point.

Q There's been no formal research to date on that then, I take it?

A Not that I'm personally aware of.

Q Okay. I'm sorry, just that the—I sort of misunderstood part of the premise of your evidence yesterday then.

Let's go on to another topic then please, Doctor. I understood yesterday that in the discussion about availability and use, you expressed the view that you can find a study which argues for just about anything, is that a fair—

A I wouldn't say that across the board by any means, but in that particular issue, the data are extremely variable and there are cases where usage has gone

down when availability has gone up. There are cases where usage has gone up when penalties were lowered. It's really quite variable, depending on time and place.

Q Okay. Is it not fair to say that we can find a study which argues for just about anything on the topics identified in the Hall report and on the topics identified in the A.R.F.W.H.O report?

A Yes, if the data were absolutely coherent and that every study showed the same kind of harm to the same degree to the same people that there wouldn't be any controversy. I mean, the reason this is such a controversial area is that the data don't point very strongly in the direction of marihuana being a harmful substance and people have gone out and looked as hard as they possibly could to find it and what they have found is a relatively weak indicator of danger and—but not to say that it's a totally harmless substance either, and that's why there is scientific debate and that's why there is public debate around the issue.

Q And it's a very controversial area, even in the scientific community, isn't it?

A I think the scientific community is pretty much in the direction of thinking that marihuana is a relatively harmless substance, but it's still controversial.

Q Okay. You said just a few moments ago that the reports went in different ways and that's why this was such a controversial area, is that—do you want to change that answer?

A No. No, it's—for every study that finds damage, I can cite others that don't.

Q Fair enough. I had the opportunity to read your paper on avoiding folly last night. I'd like to direct your attention to that for a minute or two if I may, please. I understand the paper to be in the way of a caution to those who would change drug policy, not to repeat the errors made by those who now control the drug policy, is that fair?

A Yes, I think so.

Q And reading it, I take from it an inference of those in Canada who control the drug policy have at one time or another probably more or less consistently fallen prey to

the various errors that you describe in your paper, is that right?

A Yes, I think that's probably true.

Q One of the errors that you described is a form of mental slippage known as the representative heuristic, so I take it that our policy-makers are victims of a form of mental slippage in your opinion?

A That's right. I mean, I think the most obvious one is to mistake users for abusers. That is a form of the representativeness heuristic that leads to false conclusions, I think.

Q Then they also fall prey to the cognitive twist that is called mistaking correlation for causation, right?

A Yes. An example of that would be there's a correlation amongst in North America between in heroin use and ill health and a lot of the law has been predicated on the fact that we should restrict heroin because it causes ill health, but you need only go to a place like the United Kingdom or Holland, for instance, and look and see where people get medically pure heroin administered to them by medical doctors and you find that they are on average as healthy as anyone else in the population, so clearly the correlation between in heroin use and ill health in North America is an artifact of the junkie subculture that illegality forces them to live in.

Q Okay. All I really wanted to know was whether or not you were suggesting, and I think you've already admitted that our policy-makers suffer from mistaking correlation from causation.

A Mm hmm.

Q You also say, do you not, that legislators suffer from a distortion of reality to fit their world view.

A Yes, I think they've overlooked important things and that's a form of distortion.

Q I know that you want to get to your class this afternoon and I'd kind of like to finish this cross examination before you go, but I'm going to ask you to try to limit your answer to the question please, Doctor.

You indicate that some of the attitudes towards drug users are like other mean-spirited reactions; do you recall that?

A Yes.

Q So our drug policy-makers are mean-spirited, is that the intent that you—

A No. I think that's the—I think that's the point of the paper is that you don't have to be mean-spirited to make these wrong inferences, and I'm not saying they're mean people at all. In fact, I think I say that quite explicitly, so I'm drawing a parallel between certain other areas that I would call mean-spirited, but I'm certainly not calling the architects of our drug policy mean people.

Q Okay. You do say that the legislators and the architects of our drug policy suffer from self-serving delusions, right?

A Yes, I did say.

Q From quantitative ineptitude, right?

A To the extent that the figures don't back up the policies, yes.

Q You suggest that many voters and politicians lack the quantitative reasoning skills to assess relative risks meaningfully, correct?

A I was quoting Professor Pallus (phonetic) to that effect, yes.

Q Well, you're adopting what he's saying.

A Oh, yes. Sure.

Q So what you're saying by that, the inference I take, is that the voters and politicians in Canada are not equipped to make choices about how drug laws will be structured or enacted, is that a fair inference?

A No, I—what I was saying was that our school system hasn't done a particularly good job of giving the average voter the wherewithal to draw facts from figures and that a lot of support for prohibition comes from misapprehension of quantitative arguments that are made.

Q That's saying they're not equipped to make the necessary conclusions.

A Well, only equipped I tend to think of as an innate capacity. I'm simply saying that our school system has done a rather poor job of equipping, if you like.

Q I guess we have nobody to blame for that but the teachers.

A Well—

Q I don't want to keep you from your class, so let me get on with it.

And group think is another ill to which our policy-makers fall prey, correct?

A I think so, yes.

Q Tunnel vision is another item that you identify as being a problem of our policy-makers?

A Yes, focusing on one thing to the exclusion of all others that are equally relevant.

Q You do quote a person named Nisbett, N-i-s-b-e-t-t, probably a professor?

A Yes, Dr. Richard Nisbett of University of Michigan.

Q That to the effect that there is increasing evidence that valid reasoning skills taught in the right way can have the desired result, and that means that if our policy-makers and legislators were taught to reason correctly, they would come to the correct conclusion, is that right?

A They would do better than they do now.

Q Okay.

A I mean, I don't think you can insulate against all of these things, but we could do a better job than we do in teaching those skills.

Q And that, no doubt, would be the way that Nisbett would like us to think?

A All he's saying is that we could come closer to formal logic that would pass the test of normal validity if we taught people to tally figures and to think in a more organized fashion, rather than at a gut level with emotion is what he's really saying.

Q Okay. The article in the Lancet is one from—that's the English medical journal?

A That's right.

Q That is simply an editorial, correct?

A It is the opinion of the editors of that journal, yes.

Q It's not a peer reviewed publication, that editorial?

A Well, it's the peer reviewers who write it. These are the people who are elected to the editorial board because of their expertise in the field and they're the same people who would vet articles that would be submitted for publication in the journal.

Q Peer review is a very important thing in science generally, let alone social science, I take it?

A Yes.

Q And as I understand it, and I'm going to ask you to correct me if I'm mistaken, a scientist who conducts a study generally wishes to publish the results, if—being desirous of contributing to the advancement of science?

A Correct.

Q Prepares the paper, submits the paper to the journal or journals to which the scientist thinks would be appropriate, might be interested in the work, and the journal then gives that out to other experts in the field for comment and suggestions?

A And recommendations for acceptance or rejection, yes.

Q Or for referral back to the author for—

A For revisions.

Q -- further work. And ultimately then, if all of these steps are completed satisfactorily, the journal may well—or the article may well appear in the journal?

A That's right.

Q So it's quite a careful approach to the literature, I would take it?

A That's right. They look for the kind of methodological flaws and logical errors that I was talking about in my paper and try to eliminate papers that fall prey to them.

Q And the publications in peer reviewed literature are important for scientists, aren't they?

A That's right.

Q You have had some?

A Yes, I have.

Q Have you had any papers on the psychopharmacology of cannabis published in peer reviewed literature?

A No.

Q That is—excuse me.

MR. DOHM: I could use five minutes, Your Honour, just to make sure I haven't overlooked anything. I think I'm just about done. Would that be all right? Can we just stand down for a few minutes?

THE COURT: I'll just be back here.

MR. DOHM: Thank you.

(WITNESS ASIDE)

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

BARRY LANE BEYERSTEIN, recalled, testifies as follows:

THE COURT: Thank you, Your Honour. Those are my questions.

RE-EXAMINATION BY MR. CONROY:

Q Could I have Exhibit—I think it's 5, Volume 1? When—you're a Canadian taxpayer, aren't you Professor Beyerstein?

A I certainly am.

Q And you get one of those forms every three months, I think it is, from the Ministry of Health in Victoria that's the premium you have to pay for your health plan?

A Actually, I don't because I'm an employee of Simon Fraser University. It's deducted from my pay, so it shows up, I think probably on my weekly pay slips, but anyway, I certainly pay those premiums and—

Q So there's a premium that you pay—do you understand the health care system to be some sort of health care insurance programme?

A Yes, that's exactly what it is.

Q And these premiums go in to the government, the government supposedly invests them on our behalf in order to try to cover the costs of the health care system?

A Yes.

Q Sometimes not very successfully and they have to dip into General Revenues to make up the difference?

A So I hear.

Q And so when you said that—when my friend asked you about if there—assuming it was harm from cannabis use, if you agreed with the Canadian—as a Canadian taxpayer that the adverse health effects would be paid for by taxpayers' expense, I think you've said given our health plan, yes.

A Yes.

Q Now, did you, when you answered that question, were you assuming that the taxpayer generally just paid for the overall health care costs or were you taking into account the premiums that you and others pay?

A I hadn't actually thought about it, but obviously you're right. That's where the majority of the money comes from is it is a health scheme that spreads the risk and pays to those who need it or pays for the treatment for those who need it.

Q And if—

MR. DOHM: Excuse me. I'm sorry. I should put my friend on notice that I am going to object to him leading

this witness after the—in his redirect as he did yesterday with the other witness.

THE COURT: You're objecting to leading questions?

MR. DOHM: I just want to put Mr. Conroy on notice that I will be objecting to him leading the witness on his redirect.

MR. CONROY:

Q My friend took you through then the summary from the Hall part of the Australian report, do you remember that?

A Yes, I do.

Q And he put to you the acute effects and the chronic effects and the probable adverse consequences and the possible adverse consequences.

A Yes.

Q And are you able to tell us about other substances that are not legal that have similar acute or chronic or possible or probable effects?

MR. DOHM: I have to object to that question, Your Honour. My learned friend did canvass that in examination in chief.

MR. CONROY: Well, I agree, but I'm just trying to establish that base in order to put another question to him, in response to what my friend brought out.

THE COURT: Why don't we just—I mean, I agree with your friend that it's an area that was covered during direct.

MR. CONROY: Okay. Well, let me—let me see if I can put it this way then. Maybe overcomes his objection.

Q Can you tell us the cost to the taxpayer or to society generally of each of those acute or chronic or possible or probable effects that my friend asked you about?

A No, I can't.

MR. DOHM: I have to object to that, Your Honour. The man was certainly never qualified to answer a question of that nature and it's really asking a tremendous amount of—

MR. CONROY: My friend asked him the question.

THE COURT: Okay. Well, he's—

MR. CONROY: My friend asked him if harm—if there's harm from cannabis use do you agree as a Canadian taxpayer that the adverse health effects will be paid for by the taxpayer's expense.

MR. DOHM: I did not ask him how much it would cost.

THE COURT: The witness has already indicated, as might be expected, that he can't answer the question, so I think a ruling at this point is academic.

MR. CONROY:

Q Well, are you able to tell us whether it is—would be a major cost or a minimal cost.

MR. DOHM: Same objection, Your Honour.

MR. CONROY: I assume that the witness, in saying that he thought there would be some cost, could at least tell us whether he thought it was major or minimal.

THE COURT: I agree with your friend that it is well beyond his field of expertise. As a citizen of the country, he might well understand how our health scheme works and where costs are borne when someone is ill, but indicating how much the cost might be for any particular illness or ailment would be well beyond his field of expertise.

MR. CONROY:

Q Did I understand you correctly then when my friend was asking you about the expense or the cost of marihuana, the discussion about alternative methods of use, you recall that?

A Yes, ways of ameliorating health effects.

Q Do you have any knowledge or expertise in terms of the cost of purchasing marihuana?

A Not really. I could find out, since I do canvass drug users for various reasons in my research, but I haven't asked that question lately.

Q And when you made the statement that—about the expense of smoking marihuana, you made some remark about smoking being more efficient?

A That's right.

Q Now, so in what way were you using the term expense?

A As I indicated to Mr. Dohm in his question, when a substance is smoked, it—the active ingredients are taken in through the alveoli of the lungs and into the bloodstream and that goes directly to the brain. And when it's ingested orally, it has to pass through many other organ systems and other—or places where it can bind and stay inactive and so it's less efficient in the sense that a given amount consumed produces a smaller effect in the brain and a smaller amount of the active substance in the brain and therefore a smaller psychological effect and so that's what I mean by less efficient and if it's less efficient, it's going to be more expensive to reach an equivalent psychotropic effect.

Q And are you familiar with how most people would smoke marihuana in the sense of do they smoke one cigarette themselves or do they usually share or do you know?

A I would say more the latter. I mean it doesn't always get consumed that way, but I would say the majority of it does. It's shared amongst people.

Q And do you take that into account in this question of expense?

A Sure. I mean, sharing, I think, is largely a result of the expense, that if—well, we don't see people sharing tobacco cigarettes, generally speaking.

Q But if people were to take it orally, I assume they would just eat one piece of the marihuana or whatever it is, compared to sharing it.

A That's right. They'd put it in a piece of a brownie or a cookie or something like that.

Q Have you—my friend asked you about whether or not the government had all of these studies available to them. Have you ever tried to obtain from the government what studies they do rely upon for their position?

A No, I never have.

Q So you said you just assumed that they were there in the libraries?

A Well, yes. I mean, I assumed they have the same kind of library privileges that I do and when I do a computer search I order things that my own university library doesn't have, for instance. I'm sure that's all available to government agencies, as it is to academics.

Q Okay.

MR. DOHM: The question that had been put to him was do you have any evidence that they do not have these available to them, which is a little different from the way my learned friend tried to fix it.

THE COURT: I agree that was the form of the question asked by the Crown, do you have any evidence.

MR. CONROY: Do you have any evidence of whether the government has these studies, is that what it was?

MR. DOHM: Do you have any evidence to suggest that they do not have those studies available to them.

THE COURT: Correct.

MR. CONROY:

Q And your answer was you assumed they did.

A Right. I mean, I assume they're available. I have no idea whether they've availed themselves of them or not.

MR. CONROY: Okay. I don't think I have anything else. Thank you, Doctor.

MR. DOHM: Nothing arising, Your Honour.

THE COURT: That's it then. You're excused.

A Thank you, Your Honour.

(WITNESS EXCUSED)

MR. DOHM: What time should we come back?

THE COURT: Two o'clock.

MR. CONROY: Thank you.

THE COURT: We'll resume then at two o'clock this afternoon, Mr. Caine.

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

CROWN COUNSEL: Recalling the Caine matter, Your Honour. P. Dohm, M. Hewitt and A. Chan appearing for the Crown.

MR. CONROY: John Conroy still appearing for Mr. Caine, Your Honour. Next witness is Dr. Connolly. Take the stand please, Doctor.

ALLAN KNOX CONNOLLY, a witness called on behalf of the Defence, being duly sworn testifies as follows:

THE CLERK: Please state your name, spell your last name for the Court.

A My name is Allan Knox Connolly, C-o-n-n-o-l-l-y.

THE CLERK: C-o-n-n—

A -- o-l-l-y.

THE CLERK: Thank you.

THE COURT: You may have a seat, sir, if you wish.

A Thank you.

MR. CONROY: I've given my friends a copy of Dr. Connolly's curriculum vitae at an earlier time. I don't know if my friend lost it. So what I can do, Your Honour, is I have two extra copies. If we could have one marked as an exhibit and one for the Court.

THE CLERK: Be Exhibit 25, Your Honour.

THE COURT: Twenty-five.

EXHIBIT 25 - CURRICULUM VITAE OF DR. CONNOLLY

MR. CONROY: And I'll just put this one in front of Dr. Connolly.

EXAMINATION IN CHIEF BY MR. CONROY:

Q Dr. Connolly, you have a Bachelor of Physical and Health Education?

A That's correct.

Q From the University of Toronto, having graduated in 1959?

A That's correct.

Q Could you explain to us briefly what is a Bachelor of Physical and Health Education?

A The Bachelor of Physical and Health Education was a particular school within the complex of the University of Toronto that was primarily directed towards teacher training at the time, though some people went and worked in the recreation field, community recreation field and other fields. The expectations of ninety-nine per cent of the people that entered that, male and female, was to go into the high school teaching system. Some of them went on to do post-graduate work, some went on to do professional coaching, but that was changes that they made because of experiences they had later in their life.

It was a—it then, with—as I said later, at the Ontario College of Education upon completion of the degree in that, then I was considered a Type A specialist in physical and health education. The University of Toronto at that time probably had the finest programme and there was a lot of emphasis on health education as opposed to some of the other schools and I was particularly interested in that aspect of it, became more interested in it during the course of my undergraduate work.

Q Is there a distinction between a Bachelor of Physical Education and a Bachelor of Physical and Health Education then?

A I think it's just—I think it's a descriptive difference. They also have one—I think Western called theirs a Bachelor of Health and Recreation. They added the recreational phrase.

Q All right.

A So it was more semantics, and I think there wasn't much difference in the courses, though there might have been more emphasis on health at the University of Toronto than there was at Queens or Western.

Q After you obtained that degree, as your curriculum vitae indicates, you got a Bachelor of Arts majoring in zoology from the University of Toronto in 1960?

A That's correct. That was a grandfathering situation because of a major change in the salary structures, so we were caught in the middle of that change because of the baby boom starting to hit the high school system, they changed the salary structure very dramatically at the time and if we got a significant mark in our B.A. we were considered to have graduated from a four year honour programme, whereas the programme I'd been in was a three year honour programme.

Q Okay. After that, as you mentioned a moment ago, 1960, 1961 you took the—or obtained the Type A high school teacher's certificate from the Ontario College of Education, is that right?

A That's correct.

Q And by Type A, what does that mean?

A Type A just meant you were at the top of the heap and they paid you the maximum for your starting wage, which represented at the time fifty-six hundred dollars a year.

Q Okay. Then from 1963 to 1968 you went to medical school and graduated with a Doctorate of Medicine, University of Toronto in 1968?

A Yes. What isn't in this, I taught for two years at Jarvis Collegiate as a physical health educator. Half of my curriculum was devoted to the physical and health education; the other half of my curriculum was to lower school science.

Q And you have been registered with the College of Physicians and Surgeons of British Columbia since 1969?

A In good standing, yes.

Q Okay. Your experience, first of all, as indicated from 1961 to 1963 you taught at Jarvis Collegiate Institute high school science and physical education?

A That's correct.

Q In Toronto? You then interned at Vancouver General Hospital from 1968 to 1969?

A That's correct.

Q And from '69 to 1971 you were involved in a family practise as attending physician at St. Paul's Hospital?

A That's correct.

Q And then from 1970 to 1974 you were involved in planning and development of the Youth Addiction Prevention Project under the auspices of the Narcotics Addiction Foundation of B.C.?

A That's correct.

Q And later this became a permanent programme through the Federal government or through Federal government funding and you became the medical director of that project in 1971?

A That's correct.

Q From 1971 to 1974 you were also appointed director of treatment and rehabilitation—I'm sorry, in June of 1973 you were appointed director of treatment and rehabilitation and that was again of the Narcotics Addiction Foundation of British Columbia, is that right?

A That's correct.

Q And your responsibilities included coordination of narcotic programmes, supervision of staff, social workers and physicians throughout British Columbia?

A That's correct.

Q In October of 1973 you also took over the function of clinical director of the Vancouver clinic servicing approximately at thousand narcotic addicts?

A Yes, that's a thousand addicts per year, at any one time there might be four hundred in treatment.

Q Could you tell us a bit about your experience during that period then from 1971 to 1974 and the types of narcotics and types of addicts that you came across and what you did and what sort of experience you gained?

A Well, I think it's at this time that my unique clinical experience and opportunity for unique clinical experience developed. I was a general practitioner with an older physician in Vancouver, learning my way and working out of St. Paul's Hospital and he used to get involved, people used to see him around various areas in concern. A group of concerned parents from Richmond, when the youth drug problem spilled from 4th Avenue out into the suburbs of Richmond and Surrey and elsewhere, parents became concerned. They put pressure on the Narcotics Foundation and the government to come up with some credible response. There was no information or experience available, so a variety of community responses were developed. Cool Aid was one example of that. That was started by people within the drug using community themselves. The narcotic programme approached me. They had met me at a parent teacher's meeting where one of the parents had gotten me involved because they saw me as being some special person because I had taken on the management of their child and he had stopped using the drugs of abuse that were concerning them and they wanted to—so this group of very militant parents called Parents Anonymous, started touting my name as somebody who knew how to handle this problem. I had barely learned how to spell marihuana at the time, and eventually I became invited to sit down with some members of the Narcotic Foundation to design a response to youth and the concerns of families and we designed a place called The House. It was an addiction prevention project and I volunteered about fifty hours a month there for about a year until the Federal government funded it on a three year basis conditional on me becoming full-time. I set up a medical clinic there so that I could deal with the medical concerns of young people that were transient at the time for a couple of years in the early '70's. I started taking referrals from a variety of sources of people who were having very significant problems with illicit drugs. We had one rule that I would not deal with people with narcotic problems.

They were directed to the Narcotic Foundation, but every other type of drug misuse and abuse and problems with it was referred to us by the hospitals in the Lower Mainland. We had beds where we could keep people. We had beds where we had people having bad acid trips or bad trips on other drugs, we could talk them down and we created a setting where they were interested in coming and being and we would start to engage them in more productive activity and direct them away from the issues that led them to abusing and misusing drugs. So I learned from my patients and I sort of then as a part of this became sort of the resident shrink amongst the head community over on 4th Avenue, so they'd all come in from their communes with broken relationships and broken marriages and I would see them, the various problems in that regard. I had an interest in psychiatry and might at one stage have done a residence in same, so this was really for about three years a very unique experience, and as a result of that I was invited onto committees within the British Columbia Medical Association. I was invited to sit on committees that were peripherally related to what I was doing, like the role of the nurse/practitioner in the College of Physicians and Surgeons and also invited to serve on some committees under the non-medical use of drugs, a Federal—

Q We'll come back to some of that in—

A -- programme.

Q -- more detail. I just want to clarify a few points in terms of this three year experience. You said narcotics, you wouldn't deal with narcotics, you would refer them elsewhere. When you use that word narcotic, what are you referring to?

A I'm referring to particularly at the time heroin or any of the opiate type drugs, but the primary one was heroin. And that was just a condition that they laid on me because they didn't—they didn't want to what we call the contamination of the younger people who were experimenting with what euphemistically were called soft drugs with people who were hard drug users and may be involved in the criminal community. The distinctions are official. They knew it, I knew it, and so what they started to do is after they would assess somebody they didn't deem appropriate to methadone maintenance, which—or methadone withdrawal, which is about the only response they offered at the time on an out-patient basis, they would refer users who might have low grade addiction or hadn't been involved for

very long to come and see me and so I was allowed medically to start treating their addiction problem, but they were not allowed to get involved—it was a bit of a contradiction, but they weren't allowed to get involved in the programmes that were being offered in the facility. So the—

Q And—

A So I started to—the other thing that I did because of medical resource is a very expensive resource, I provided medical care in a variety of situations around the city where I would come into contact with the young people, the people at risk in terms of looking after their medical needs, they might identify somebody who was having drug-related problems related to their drug misuse and I would encourage them to come and see me at The House and get involved in our programmes, so I set up—I was involved in setting up a clinic which is now The Downtown Medical Clinic. I had, at the time, a tube of Ozynol, a drunken nurse and a parolee was my staff. That's where the current Provincial Courthouse is. The Traveller's used to be right around the corner which was a bar that was highly identified with speed use and MDA and intravenous use in drugs so that was very handy and I met a few of the people from there. I delivered the babies for the people that went through Cool Aid and a lot of the draft dodgers at St. Paul's Hospital because they wouldn't have medical coverage but I could arrange to get them in and have my colleagues attend to their medical needs in-house in hospital. So I had a variety of experiences in different settings, as well as at The House.

Q So at The House, was that primarily what you called a moment ago soft drugs?

A Primarily almost exclusively.

Q And what would you then categorize as soft drugs?

A Well, it's a distinction that—soft drugs was anything but—any drug but opiates is the simplest way to put it.

Q Okay.

A Speed was big at the time in the early '70's, intravenous speed use was epidemic in certain areas of Canada. That wasn't the case in Vancouver. MDA was used in that pattern, another drug. I really made the distinction, I wouldn't—this was an artificial distinction that I used to educate against, because I saw really the

mode of use as being more problematic than the substance, the frequency of use, if a person made the commitment to make a needle, then I thought we had a real problem.

Q So to what extent were you dealing with people with marihuana problems in that period?

A I would say—I would say a hundred per cent of the people that were passing through the house, plus the people we hired on LIP grants were probably using marihuana.

Q What sorts of problems were they—

A Well, the things that I think the Court has probably heard about. I saw people that had severe anxiety attacks because of their premorbid personality, their particular chemical disposition. I saw people with panic attacks, I saw many people with bad acid trips and with the aftermath of people that maybe never should have used that drug. I saw people that were into addictive patterns of use of a variety of the drugs that were considered soft drugs for a variety of reasons, not necessarily related to the drug but more related to the particular composition of the person and their background and the drug itself. So there was a variety of the very unique issues. A lot of psychotic kids who were crazy, had schizophrenia and had pure mental illnesses also migrated into this system, because there's no judgments being made about their behaviour and they just looked like a burned-out acid head, so nobody was sitting in judgment and they would stay in this community and so I got a lot of experience with people that had pure psychotic illnesses that were in that age group.

Q Did you get any occasional—well, I think you said this was just youths in The House, is that right?

A Well, youths up to about, you know, there's some adolescent thirty-year-olds wandering around, particularly in the drug-using community, so I used to see—age wasn't totally a discriminating factor but most of the people were under the age of twenty-five and older than twelve to fourteen, because right around that time was one of the first sort of flawed attempts of changing the Child Protection Act to allow physicians to respond to youth and, as always when we draft new legislation, we tend to exaggerate the problem rather than ameliorate it.

Q So did you get—were the people that you dealt with people who would be referred to you by other doctors or through—

A Yes, that—

Q -- hospitals or would they come in just—

A They were coming from all sources, both—they would -- we had a crisis line. We originally thought when we set up the programme that we were only going to use family therapy, that we were only going to use people that were—had a geographically intact family, so that we could work with the family. The permanent, full-time staff were all trained in family therapy. I myself was—had some experience at the Menninger Foundation in family therapy. We were running a crisis line as a catchment device. We were open twenty-four hours a day seven days a week with a psychiatric nurse on hand plus volunteers. We thought we could direct the person to the resource they might need other than family therapy and we found out as soon as we opened the door they wouldn't go to those other resources but they would come to us, so we started—we built a little empire of the things that those people needed around us and created a little community that people would use The House as their place of safety, so rather than referring them to other community resources, we gradually expanded the resources of our own programme, because we found it flawed to direct them elsewhere.

Q Did you have—

A But referrals from doctors, I had doctors referred to me by doctors, I had nurses referred to me, people that had come into—and that's where I started to gain my experience with dependency on prescribed drugs. So it was really quite—I had quite a unique situation there for three years.

Q I don't know if you mentioned this, did you have a name for The House?

A It was called The House and that was on the pamphlet and under the subtitle, the Addiction Prevention Project.

Q Now, you've said that in terms of marihuana users a hundred per cent of them were involved with marihuana. Were there some that were solely involved with marihuana as opposed to other drugs or was it always a combination multiple drug use?

A Most often it was a combination, but over the—those years and in subsequent years and while working in the alcohol and drug field, I did see people that had—that their problems were clearly identified with marihuana use only.

Q Now, in that three year period, or are we talking later on?

A In that three year period and as well later on.

Q Now, just focusing on that three year period for the moment—

A There would be some people that would have had a reaction to their marihuana experimentation that terrified them, frightened them, upset them, made them anxious and they would—might get referred or—to us either in the middle of the crisis or phone because they were in crisis like a crisis line and then maybe see me the next day, having talked to one of the other staff. If it wasn't something that the other staff could handle, they sometimes would involve me if they felt it was a little more serious, just not a transient episode. We used to have a lot of people pass through at night, for example, who had—used to use needles and would wake up in the middle of a needle dream and they'd just come down and talk to the nurse and that was all that was required. If that nurse hadn't been there, they likely would have headed down to Davie Street and scored some speed.

Q Just limit it to the people who used only marihuana, and you've mentioned particularly these panic or anxiety attacks. So what would happen? They'd come in. Tell us—give us a typical scenario in terms of the person and what you would sort of do with them and how long it would last, that sort of thing?

A Well, I have a better understanding of it now, now that I've been working in the—with exclusively psychiatric population for the last thirteen years, but it would be an anxiety attack that would leave a residue. In other words, they'd be in sort of in a state of chronic anxiety. They'd have free-floating fear and concern. It would be not just—the fact that they were stoned and were in some setting and developed some fear and concern and then they would—the drug effect would wear off and the fear and concern might persist, the fear and concern might keep them anxious. They didn't know how to deal with that, their general physician might not deal with that. They'd refer them and generally it was just psychosocial counselling that was all that was

required. Sometimes some of them were—had severe enough levels of anxiety that I used minor tranquillizers for short periods of time to demonstrate to them that they could feel like their old self again and then that generally was enough just to let the fear subside.

Some people had recurrent panic disorders as a result and might well have—that person might well have been predisposed to have those whether they'd smoked the marihuana or not. It just happened to be that the drug using episode was the precipitating event that unmasked a predisposition.

Q Would you get involved in trying to determine what the precipitator was, whether it was prior problems or whether it was the drug?

A I was quite interested in that, would spend quite a bit of time exploring that and would also investigate medically to make sure there wasn't some metabolic problems because in some instances metabolic problems that are unidentified can precipitate the same, similar events.

Q So if you were to look at the numbers that you were dealing with in that period, are you able to break down for us first of all the numbers that were solely marihuana problems as opposed to multiple users for other drugs or is that possible?

A This is—we're going back now to 1971/'72/'73, the Narcotic Foundation did have a very sophisticated little research. This kind of statistic, they made some attempt, but in the type of street facility that we were running to start to have a lot of paperwork as a receiver, so we didn't keep regular statistics in that regard, though there were periodic surveys that are probably lost in the annals of the old Narcotic Foundation. I can remember some, but I can't remember what the specific statistics were.

Q Okay. When—in dealing with the different types of people addicted or using different drugs, would you set priorities in terms of which were the most serious types of problems and which were the less serious types of problems?

A I don't—I think the patients set the priorities. The nature of the difficulty for coming through and the description of the difficulty and the apparent difficulty to the staff, we were always—and so it wasn't that we minimized marihuana problems. It's just that there weren't a lot of them coming through the door, as opposed to people that were having problems post-LSD

reactions who were becoming addicted to MDA use or getting involved in speed or people that had been into using multiple drugs and then started to get involved with needle use. Those got our attention, those got our priority.

Q Okay.

A If a person came in in the middle of a panic reaction at two o'clock in the afternoon related to some marihuana smoke that they had done, then they would get our full attention at that moment. We would deal with that acute crisis, but we—it wasn't based on any prior policy or anything other than the separation with the opiates from the other drugs.

Q Okay. Now, from '74, 1974 'til 1981, you became involved with the Alcohol and Drug Commission of British Columbia?

A That's correct, and that was—that was initially in more an administrative implementation role. The new government of '73 set up an Alcohol and Drug Commission Act which was an attempt to rationalize the fact that most drug treatment programmes got their funding through three levels of government, if they are lucky, from seven different departments. It meant that very valuable staff spent a lot of their time trying to negotiate funding with these mechanisms rather than in-patient service, so this was a reasonable attempt to d develop programmes in—coordinated programmes in the Province of British Columbia to make sure all the areas were being adequately serviced and to try and rationalize it in such a way to deal with some of the major issues in the alcohol and drug field. B.C. had, at the time, only two private foundations, the Narcotic Foundation and the Alcohol Foundation and then educational services and the rest of them were all individual, about eighty-two individual programmes that were either through A.A. mechanisms or religious mechanisms or other just community concern mechanisms, so there was a lot of coordinating to do and we drafted a plan that communities could use. We made—we rationalized the funding and I was involved as the Director of Treatment and Training in training the staff of these programmes and qualifying the staff of these programmes and laying down opportunities for them for training in terms of people that did not have expertise in some area but might be very valuable in dealing with people in another area of concern. I also at that time continued to be involved with the Federal government in a variety of their initiatives.

Q What involvement had you had with the Federal government prior to that time or up to including this period?

A Well, prior to that I had been on one of the—there was a non-medical use drug directorate that had been established under Health and Welfare Canada, I think a Minister Munro at the time. It was actually headed up by a Bill Draper, who is the man that designed the Canadian Assistance Programme. So the government had given it a high priority and the minister later became Lalonde and I met with those people and would discuss the issues that we're dealing with out in British Columbia, because at that time about sixty per cent of Canada's heroin addicts were in Vancouver.

At about the same time, there was a dissemination of heroin abuse throughout the province and throughout Canada in a way that we hadn't seen before, so there was a lot of concern about this and I would be involved in talking about policy issues in that regard on an individual basis with assistant deputy ministers and deputy ministers and sometimes the minister.

Another committee I sat on was a granting committed that looked at a variety of programmes in the communities around British Columbia to deal with the problem of, if you wish, soft drug use in young people, and they had a special granting mechanism that they ran. Another involvement at the time was under the auspices of the Medical Research Council of Canada. I was selected to sit on a committee looking at grants from the ivory tower, from academicians. Most of it was neuroscience, very basic neuroscience, and they were looking for at the—the scientists would be looking for funding to look at neuroscience through non-medical use of drugs and I was the—one clinical person was invited to sit and I would be a major referee in that every six months on one paper, minor referee on two papers. I always felt I was a little over my—out of my league in that regard, but they felt it was important to have a clinician with street experience who could advise them about the utilitarian nature of the pure research that might be funded.

Q I understand Professor Harold Gallant was one of your professors when you were—

A That's right. He's quite an intimidating professor of pharmacology, very bright man, and I also used his writings in my—in the vast amount of educational work I did in this field through the '70's into the '80's.

Q And when you were in this grant capacity, would you have applications from him as well?

A I think if it wasn't him it was the other one that gave the lecture the next day. That was one of his colleagues. I always thought that was quite ironic.

Q Now, when you said you had these relationships with the Federal government through the non-medical use of drugs, was that in your capacity as the administrator with the Alcohol and Drug Commission?

A Well, these would be sort of by invitation to—just invited and they would invite—they would ask the chairman of the commission if they could use me in that capacity and there was an air of cooperation throughout the country. There were a variety of initiatives, other initiatives that were started by the Federal government that I would be asked to be involved in, the trainer of trainers initiative. I coordinated the first workshop they had for workers in the alcohol and drug field to train trainers to train other people in their provinces and they brought people from all over the country and I coordinated that training programme in Vancouver.

Q Now, would you train them to deal specifically with some person coming in with a particular problem as a result of drug use?

A The—by that time we were sophisticated to know that the appropriate information about the drugs was only a small part of the way of dealing with the people that are having difficulty and people needed certain people skills. They needed communication skills. They needed a larger body of skills in order to deal with people effectively, so we would set up training for people to train people to train others in those fields in the communities that they would go back to, so we were training the trainers. Part of that package would be alcohol and drug information. That I gave to new staff, to other staff within a variety of organizations for ten years, dozens and dozens of lectures on the various drugs that were under—that we've discussed.

Q In this capacity where you'd have this liaison or relationship with the non-medical use—non-medical drugs directorate and these other committees, would you get involved in areas other than just the specific medical or health questions in terms of the drugs? Would you get into policy options in terms of various approaches to control the regulation of the various drugs?

A Well, I think it's obvious that this has always been a very political field, so social and political considerations, I think, were always very large in our discussion and were very openly discussed at times and there were some committees that I was involved on, the British Columbia Drug Dependency Committee, for example,

would be almost exclusively involved with policy and setting—trying to recommend certain social policy.

Q And so would senior public servants seek out your opinion then as to a particular approach in relation to particular drugs?

A That's—

Q As well as other opinions.

A Yes. Yes. Certainly.

Q And then so you would give them advice or the benefit of your experience as a clinician in terms of what you thought a good approach would be?

A That's correct.

Q Okay.

A Some of them because they had built-in biases might not ask me the question that would have served them well, but that was—that's another story.

Q Okay. Now, as indicated in your curriculum vitae then, the first part of your involvement with the Alcohol and Drug Commission was this as you note design and implementation of training programmes, accreditation of staff and the development of sixty treatment programmes under the commission's auspices, and as noted you were involved then in policy, budgets and hiring, and then in October of 1975 you were appointed senior director of programmes and this made you responsible to oversee and coordinate all departments of the commission, including education, treatment, training, research and community development, is that right?

A That's correct. That's about the time that the disaster happened, you might recall.

Q What was that?

A There was a change in government.

Q Well, and what was the effect of that?

A A narrow-minded fascist became the director of the Alcohol and Drug Commission—

Q And what—

A -- who was preoccupied with the compulsory treatment programme of heroin addicts and couldn't spell alcohol.

Q And what did that to do the programmes?

A Well, it wasn't so much—fortunately, we found a way of protecting him from doing a lot of damage to the programmes that we had done. The damage had already been done by the recession in 1974 where we had got the cooperation of all these programmes and the people in the province and then we did not give them the budget to implement the programmes that we promised they would because of the recession, so I can't blame the change in government on that. What happened was at the time we became the major resources devoted to the alcohol and drug, there was you might recall a recession. There was a contraction of government spending and yet somehow the director found twenty million dollars to start a compulsory—to set up, hire people to set up a compulsory treatment programme for heroin addicts.

Q This was the one that was going to be established at Brandon Lake?

A Brandon Lake was the—I went there one afternoon a week to make sure that they weren't admitting people that weren't narcotic addicts and overseeing it and would have occasion to go there. It was a residential facility that was going to be used as a coercive device for citizens that had been cited as being at risk or heroin addicts. But there were something like fourteen clinics and where they bought the furniture for all of them and the equipment for all of them on government money that were never opened. The equipment was all stored away.

Q And the focus of it becomes solely heroin at that point?

A Almost exclusively heroin, so the—this tremendous amount of fiscal resource and staff resource was misdirected.

Q Now, you've told us you dealt with a number of different drugs, alcohol obviously was one of them?

A Finally, to get out of the insanity, I knew there was a position open on—still within the civil service in the alcohol field and I applied for a cross transfer so they couldn't keep inviting me to their meetings about

narcotics, and I eventually changed my office and worked in the alcohol field for several years.

Q Now, but after you were senior director of programmes in October of '75 you became a consulting physician in June of 1976.

A That's correct.

Q To a variety of both alcohol and drug programmes?

A But I was at that time—yes. But at that time I was still a civil servant. I'd just re-assigned and went back to doing clinical work rather than my administrative role, but still provided consultation to agencies and government departments when called upon.

Q And again as noted in your curriculum vitae, your focus at that point was clinical but also educational and forensic?

A That's correct.

Q Okay. And then that continued, did it, until July of 1981 when you became part-time medical consultant on alcohol and drug abuse issues again involved in clinical, educational, forensic matters?

A Yes, that's correct. In '81 I in fact retired from the civil service and took a year out, actually fifteen months out. During that time I would still—I on several occasions gave expert testimony in particular matters.

Q Now that—sorry?

A And then—then I became involved in October 1982 with the Greater Vancouver Mental Health Service and about the same time started the preparation to open a private medical clinic.

Q I'm sorry, what year was that? '82?

A '82.

Q All right. Now, in your—again, just continue with your curriculum vitae, you indicate at the bottom of the second page that you have testified in the courts at all levels in British Columbia and you've been—since 1972 and you've been accepted as an expert on alcohol and drug problems?

A That’s correct.

Q And did that include specifically marihuana issues?

A Yes.

Q And it says you appeared both for the Crown and the Defence?

A That’s correct.

Q And the specific nature of your expertise that you testified to in the courts involved the effects of narcotics on individuals, that was part of it?

A That’s correct.

Q Treatment and management of those individuals?

A Yes, not just narcotics but all psychotropic drugs.

Q So it included, as you indicate, all both legal and illegal psychotropic drugs?

A That’s correct.

Q And the treatment and management of people with problems arising from these various types of drugs?

A That’s correct.

Q And you’ve also given expert evidence in Alberta with respect to the same matters?

A That’s correct.

Q You’ve given evidence before various professional tribunals?

A That’s correct.

Q For the College of Pharmacy on behalf of the College of Physicians and Surgeons?

A That’s correct.

Q And you have tried to be selective in the number of areas that you became involved?

A Yes. Defence counsels would have had me in court every day if I'd, so I did have to be selective and focused on certain—I focused on certain areas, mens rae under the influence concern cases was one are that I gave evidence on maybe ten occasions.

Q Okay. Now, before we move on to 1982 to the present, I want you to give us an idea, if you can, as to the extent of your involvement with marihuana and marihuana issues during that period from 1974 to 1981. I appreciate you've mentioned all the other drugs, but to what extent if you're able—

A Well, that—

Q -- can you segregate out the marihuana issues in question.

A Well, I got a very quick—I got a very quick education in this regard. I had been invited very early in this when I was still a general practitioner but during my volunteer time at The House, I'd been invited to an industrial seminar talking about drugs in the work place. It was the second one that I'd been involved in and I was asked to, because there would be a lot of parents there, men, fathers and mothers generally, maybe a hundred people, it was sponsored by a variety of unions and companies, and I was to speak about the alternatives to youth drug abuse, and that was the title of my talk. And in the course of the—in the course of the discussion at the end, the questions, a father asked me well, what do I tell the kids? So I gave him the example of how I enter into the dialogue with people about marihuana. I say it's too safe a drug to legalize.

Well, that was quoted in the Vancouver Sun except they changed the word safe to soft and the next thing I know I was over—the next night I was over at the clinic seeing a family and all of a sudden about five board members from the Narcotics Foundation came in because I was identified in the headline as being a doctor from the Narcotic Foundation and they wanted to know why I had said that, so other than I was misquoted and misrepresented and taken out of context as the press so often does, I right then knew there was a very political bias around this particular drug. I myself had no experience with the drug at the time and was now starting to have experience with people having problems with it, started to read extensively in the field and became very informed very quickly so I wouldn't make the same mistake.

So it was a very political time. The government was very interested in getting involved in the alcohol and drug treatment time, but they were very sensitive to the kind of biases that are out there in the community, so people like myself that wanted to operate and create the best opportunity for patients and people having the difficulty and deal with some of the difficulties they had,

we had to be good politicians too as well and be diplomatic in our public presence and in my educational presentations I always had to be very careful and guarded in what I said and so I generally would speak the party line and use the current medical literature that was extant at the time about the drug and I relied very heavily on some of the writings that are cited in references, early references in this court case.

Q That would have been, at least at the beginning of that time was the same time or around the time of the Ledain Commission, wasn't it?

A The Ledain Commission in—most definitely the Ledain Commission, but there were other people like Kolansky (phonetic) and Moore, Mahaas (phonetic), Campbell, those kinds of writings were starting to appear around the effects of marihuana on people.

Q And—

A They were later discredited, but I as a physician, as a responsible physician making a public utterance would use what I thought to be the scientific evidence that was valid, so I started to see very quickly that one of the problems young people had was that they didn't trust anything an older person said about illicit drugs and so to be credible and to be honest became very important in terms of the treatment of these people, so I might dialogue differently with a patient than I would with the parent of the patient than I would with a public gathering where I was talking to a lot of people from the head community where I was talking to a lot of police officers that needed—over at the police college they used to be, you know, behind the old Molson's Brewery, I would be invited so that police would become more informed about these drugs and so I was very involved in the education of a variety of professional groups and—but always had to—I always wanted to challenge their biases because I thought that was the best educative tool, but I also had to be appropriate, so I would not bring discreditation on the organization that I was a member of or the profession that I was a member of.

Q Let's continue then with from '82 on and we'll come back to some specific questions about your experiences in a moment. So from 1982 to the present, you've worked primarily as a consulting psychiatric physician to the Greater Vancouver Mental Health Services Society?

A I'm not a psychiatrist, so I use that term and I provide consultation to patients with psychiatric difficulties almost exclusively.

Q Yes.

A I'm working with mental health teams exclusively. I'm not in private practise. I'm—and that has to do with the nature of—so I don't want to be confusing by saying I've worked as a consultant in a mental health team as a psychiatric—as a physician who does exclusively psychiatric work with the chronically mentally ill.

Q Well, give us an example of the sorts of things that you would do on a daily or weekly basis and the kind of people you would see and the kind of things you'd be involved with?

A What I would be doing right now, I'd be seeing—I'd be seeing at the—over on Commercial Avenue in a clinic where there would be two other doctors in attendance, I would have booked—had about eight patients booked, one every half hour. The diseases that they would have would be various forms of schizophrenia, manic depressive illness, panic disorder, a variety of Axis 1 disorders, some personality disorders. Some of the difficulties they would be having would be related to their drug misuse, but they were primarily there because they had an Axis 1 chronic mental illness. They would be of all ages from the '70's down to the late teens.

I might handle in an afternoon twenty charts. I might see ten people. So in the course of a day I'll see anywhere from fifteen to twenty people. I'll handle anywhere from twenty to thirty, forty charts, and I do that almost exclusively, except for the occasional stop at the drinking fountain and chat with one of the other staff. It's pretty demanding work and I tend to get locked into the office, doing it. There's not much else around in my work other than that.

Q Do you get any people in the course of your work that have significant problems as a result of marihuana?

A I'm convinced that a lot of people that have had psychiatric difficulties have made some of their psychiatric difficulties worse through their use of marihuana, simply because their brain chemistry and marihuana don't mix. I have some patients that are doing very well and smoke marihuana every day and have a major axis and are employed. I have other patients if they smoke marihuana decompensate in spite of the five or six psychotropic drugs that I've medically prescribed for them.

Q And do you have any that have a problem—or that you were able to tell because of marihuana?

A I would not think that—it's my belief, you know, because I think this is where your questioning is leading, it's my belief that the only people that have trouble with marihuana are people that have a predisposition to that trouble, that the set and the setting and by that I mean the circumstances around which they took the drug, the set, i.e., the psychology of the individual and everything that led up to that moment, the drug is just simply a catalyst and unfortunately a catalyst to bring out the difficulty. In a lot of instances, it's my opinion that they would have had that difficulty eventually whether they had or had not smoked marihuana. That's based on my clinical experience. I am sure in that group that I've just mentioned I can say with a surety there aren't a few that simply their body chemistry and the chemistry of marihuana didn't mix and their difficulty was because of their use of the marihuana.

Q Let me just finish—I want to just give us some idea of the—if you were seeing people like that. I have to finish going through your credentials and then have you qualified and we'll go back and have you express some opinions on some of these matters if the Court accepts your expertise.

After—well, continuing with your curriculum vitae, you also indicate that since 1981 you've also given expert evidence in the courts on alcohol and drug problems arising out not only of your earlier experience but also your experience, I take it, with the—

A That's right.

Q -- Greater Vancouver Mental Health Society. And you then listed a number of publications in your curriculum vitae, The Dividing Line, The Relationship Between Youth Programmes for Multiple Drug Abusers and Narcotic Users and The Role of the Industrial Physician in Drug Abuse Problems, publications in 1971 and 1972?

A Yes.

Q Another publication in 1973, History of Methadone Maintenance in Canada?

A That's correct.

Q Drug Addiction Recognition and Ethics of Treatment, 1973.

A That's correct.

Q The Medical Practitioner as an Expert Witness published for a conference in 1978?

A That's correct.

Q And then The Helping Profession as the Victimizer, proceedings from a symposium in Corrections in 1980?

A That's correct.

Q And then you've listed in—

A Publications weren't my strong suit.

Q You've also—

THE COURT: I wouldn't apologize.

MR. CONROY:

Q You've also listed a number of achievements and associations that you were involved with. 1971 you found the—or you're the founding physician of the Downtown Community Health Clinic?

A Yes. I made earlier reference to that.

Q 1971 to 1980 you were a tutor with the Family and Community Medicine, Faculty of Medicine at the University of British Columbia?

A That's correct.

Q And also from 1971 until 1988 you were a member of the B.C. Medical Association Drug Dependency Committee, Health Planning Council?

A That's correct.

Q 1976 to 1988 you were a member of the B.C. Medical Association Alcohol Dependency Committee, Health Planning Council?

A That's correct.

Q 1977 to 1980 you're a member of the Scientific Review Committee, Department of Health and Welfare, Ottawa?

A That's correct.

Q Now, that's the one where you would review proposals from academics primarily seeking funding from the Federal government for their particular projects?

A That's correct.

Q Okay. Does this involve the concept of peer review? Is that a concept—a term that you would use to describe some—

A I hardly felt like a peer. I was—but yeah, I guess I would—peer review and I do two minor review. There would be two papers and I'd do the minor review and with each paper there would be two minor reviews and one major review and I was also expected to do a major review, even though I was not particularly articulate in the—in the particular issues that they were addressing, but I had to come up to speed, so it brought my level of understanding to a higher level of sophistication and was really required for my clinical work.

Q Okay. The process would be, and correct me if I've misunderstood it, but the person would submit a proposal, you and others would review that proposal which would include you going and doing research to see if you fully understood the proposal and how it was going to fit—

A They made it a little easier than that. The person submitting the grant application would do a review of all the literature and put as much of that in and a specious justification for why the—their research was going to add to and complement what already existed and what new it would find, because this is what I'm saying, basic sort of leading edge research. It wasn't to reinvent the wheel, it was to do something new and so they saved me the—they would provide this big summary, which may be somewhat or very—bring me up to speed with what was out there in the field. If I didn't understand it, I had people like John McNeil, a professor of psychopharmacology who was only too happy to sit and discuss any wrinkles with me because I'd use them as educational resources over the previous ten years.

Q And was he a person there on the Scientific Review Committee or—

A No, he at the time was I think the director of medical pharmacology at U.B.C.

Q Okay. And when you had that role, did you get a number of applications for studies in relation to

marihuana and the effects of marihuana, things of that nature?

A I think the academic community had been badly burned by what happened with the Ledain Commission with regard to marihuana and they'd, with a few exceptions, had discontinued it. What had a high priority at the time was the opiate receptor, the—and certain smoking, so a lot of the grants that we were looking at were primarily related to the opiate receptor, biochemistry, pharmacology around that, as well as smoking. Those were the two priorities of the Health Canada at the time. Marihuana by that time had ceased to be a priority with the Federal government in terms of doing any sophisticated research. The door had shut.

Q And that was 1977 or 1980?

A Certainly by then, yes.

Q By 1980. You say people who experienced—had been burned by the experience with the Ledain Commission; what did you mean by that?

A Well, I don't think most Canadians realize, but the Ledain Commission is seen in the—was seen in the international community on the basis of what they created as being the most significant commission on alcohol and drug abuse that had come along. There had only—there had been a few before and there have been a couple since, but it has always had tremendous respect in the international community. They at the time had massive availability of funds, had started a whole lot of very sophisticated research, in particular into the marihuana issue. They had marihuana under cultivation in Ottawa for experimentation and suddenly about 1973/'74 with the world recession, then non-medical use of drugs and the Ledain Commission were discontinued and the research was summarily stopped in most instances. So you had a lot of unemployed marihuana researchers floating around the country looking for work. Some of the people in the more established institutions like the Addiction Research Foundation, they might have continued some of their research, but they had other funding sources through the Ontario government. They were very liberally funded. They had an international reputation and so I think they might have sustained some research in the marihuana issue, but it had ceased to be a priority in the larger sense, marihuana research.

Q Okay. Continuing then, in 1978 through 1980 you were a member of the Board of Directors, Vancouver/Richmond Mental Retardation Association?

A That's correct.

Q 1979 to 1980 you designed and taught chemical dependency course at Douglas Community College?

A That's correct.

Q 1980 through 1988 you're a member of the medical group of Amnesty International?

A That's correct.

Q 1980 through 1988 you've been a member of Physicians for Social Responsibility and in 1983 you became a member of the executive and continued that until 1988?

A That's correct.

Q The Physicians for Social Responsibility, the name was changed to the Canadian Physicians for the Prevention of Nuclear War and from 1990 to 1994 you were a national board member of that organization?

A That's correct.

Q And from 1994 to the present you've been a member of the National Board of Physicians for Global Survival?

A That's correct.

Q And among other things, you're a sculptor?

A That's what happened in 1981. My creativity—I stopped working. I had the sense to stop working and my creativity burst through and I've been doing it about thirty hours a week ever since.

Q And since 1988 you have continued, have you, working in the Mental Health field?

A Yes.

Q And when you were with the Narcotic Addiction Foundation and the Alcohol and Drug Commission, you've indicated you kept on top of the literature,

scientific literature and particularly what is being put out in relation to not just marihuana but various other drugs?

A That's correct.

Q Including alcohol?

A Up into the mid-'80's I continued to do that almost up until '88 because I was still invited to give very significant educational seminars to medical colleagues, in particular I can remember, and also because I continued to do, even though I was—as the forensic work related, because I was the only physician that had the kind of expertise and I thought the courts deserved that. Unfortunately, I just became too busy with other things and stepped aside.

Q So from 1988 roughly until the present, a period of about eight years, did you keep up on the scientific literature in relation to the various drugs or not?

A No, I did not keep reading in the field at a level that I had prior to that.

Q Okay. Would you—you would still read literature to some extent based on the types of problems that you were seeing in your—in the practise in the Mental Health—

A Yes, I started—I was reading more in the psychiatric field than I would be in the—but certainly there is an overlap and most of the—because for the last twenty years I've been dealing with the dispossessed, they seem to be more vulnerable to the issues of drug abuse and misuse, so the majority of my population that I see in the psychiatric clinics, particularly the younger people, are using illegal drugs.

Q Can you say whether or not you would be dealing with most of the worst case scenarios in terms of drug abuse or multiple drug use or are you able to say?

A I could almost say categorically that from 1970 until about 1980 I probably saw every movie there was related to illicit drug abuse. I probably had clinical experience that was unique to any physician in North America. I had the opportunity of working in some of the American clinics for short periods of time to make sure that we in our approaches were being consistent with the highest quality of care being offered, so in the

States it would be the free clinic movement and I would make a point of visiting some of those free clinics and visiting with physicians that had been responsible for setting them up.

Q Now—

A So I can—and I would see their population, actually stay there from the Haight-Ashbury, for example, for a week and just work with the physicians seeing the types of problems they saw.

Q Now, in order to come here to testify in this case, have you attempted in the short time available to you to try and familiarize yourself with some of the more recent literature, particularly on marihuana, marihuana research?

A I would say I've made a heroic effort.

THE COURT: My chance is yet to come. But I understand the word heroic.

MR. CONROY:

Q You've had an opportunity to try and get through some of the—

A It would be a lot easier in my life not to have bothered and not to have put myself forward. There's no doubt about that, because I do feel responsible to be as close to the truth, but I also know that I had to couch a lot of what I said twenty years ago and I was quite interested to have an opportunity to bring myself up to speed with the information around this drug, so I've appreciated the information that's been provided to me in that regard. It makes me a little despondent, makes me a little concerned that the same rhetoric is being used today that was used twenty years ago and we haven't really advanced the cause of the truth very far, based on my reading of the medical evidence that you've presented me with. Seem to be getting moralizing minutiae because we had nothing else to say of consequence.

Q You had a chance to look at the testimony of a number of witnesses in a case called Hamon?

A Yes.

Q You had a chance to review the Morgan Zimmer scientific review of literature up to 1995?

A That's correct.

Q And a number of other articles, specifically dealing with marihuana?

A Yes, I've had the chance to review those.

Q You were able to review some materials, specifically Exhibit 16 -- sorry, 14, 15, 16 and 17 just for the record, those were the papers that Dr. Peck referred to. You were—but you weren't able in the time available to review what we call the Crown's Brandeis brief or even the Defence Brandeis brief, is that right?

A No, I was not able to do that in the time available.

MR. CONROY: I would ask that the doctor be qualified as an expert as a medical doctor and specifically on the effects of psychotropic drugs of all kinds.

THE COURT: Just hold on a moment.

MR. CONROY: Treatment and—I'm sorry.

THE COURT: Treatment and management?

MR. CONROY: Treatment and management of the people affected by psychotropic drugs of all kinds. Also as a person having expertise in the relationship between psychotropic drugs and effects on mental health, reviewing scientific literature on psychotropic drugs to some extent.

THE COURT: That's an area of expertise?

MR. CONROY: Well, it seems to be in terms of how some of these things are approved and the process under which -- I'm not making a lot of this, Your Honour. He's already indicated the nature of what he did in that respect. I just want to make sure he can expand on that, if necessary.

THE COURT: Well, I understand your concern, given some of the problems that we've had—

MR. CONROY: All right.

THE COURT: -- earlier, but it seems to me if we—if we understand what these fields encompass, would it not encompass review of the literature?

MR. CONROY: Well, what I've mentioned so far is primarily -- is clinical experience in terms of treatment

management, all the effects, but if the Court's prepared to see that in a broader sense, my submission is is that the doctor has a very wide experience, not just as a clinician but as an educator, as a teacher, as well as a clinician and I'm also going to ask you to accept that he has certain expertise in policy issues in relation to different drugs and means of control and regulation in relation to them. And most importantly, that he be accepted as an expert on health education as a person who educates people about health and health issues, both mental and physical. And of course, that that expertise involves both the Federal government and the Provincial government and the relationship between the two from time to time, at least in that period that he referred to.

MR. HEWITT: May I ask about intergovernmental relations?

THE COURT: Are we talking about policy, expertise in the Federal policy—

MR. CONROY: Yes.

THE COURT: -- both at the Federal and Provincial level?

MR. CONROY: Yes, in relation to psychotropic drugs.

MR. HEWITT: Your Honour, I'm going to have some questions to ask in any event and I note the time, so it may be just appropriate time for the break and proceed more readily after.

THE COURT: All right. We're going to take the afternoon break. Stand down for about fifteen minutes.

(WITNESS ASIDE)

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

MR. HEWITT: Recalling the Caine matter, Your Honour. I just have a few questions to ask with respect to qualifications now.

ALLAN KNOX CONNOLLY, recalled, testifies as follows:

CROSS EXAMINATION BY MR. HEWITT:

Q Doctor, I want to ask you about experience reviewing literature. As I understood it, the reviews you have done have related to grant financing and the obtaining of grants and that sort of thing, reviewing proposals for the purpose of grant funding?

A That was one type of review that I did.

Q Have you done peer review for journal articles?

A I wasn't—I was asked by the Canadian Medical Association to do a review of some journal articles in the past, yes.

Q When was that?

A That would have been in the—probably the mid-'70's. Articles related to narcotics use, I remember, prevalence of—there were a couple—another one on cocaine. I was invited by the editor of the Canadian Medical Association to do a peer review.

Q How many times do you think you did that?

A I think I did it twice. I hated doing it.

Q Did you? It certainly wasn't—

A But I don't want to—if I'm understanding you, I was constantly reviewing scientific literature in this field for fifteen years.

Q Right. For your own practical purposes?

A For the purposes of better informing the public and giving better service to my patients.

Q Is that kind of review done with a different sort of eye than you use when you're doing a peer review?

A Certainly. And certainly my involvement in the scientific review committee was of a different—a cut above even that.

Q Sorry, can you explain that?

A It was basically dealing with a variety of very sophisticated research proposals that involve laboratory strategies, patient population manipulations, epidemiological studies where I had to become up to speed and familiar with the current state of that field

and it wasn't an area that I had a lot of expertise in as a field. I was there for a different reason, because my clinical experience, but I had to articulate and speak as if I was one of the pure scientists, and my—the substance of my review had to appear to be at the same level that those other scientists were reviewing the same paper.

Q I took it from what you were saying, maybe I was wrong, that you ultimately don't place yourself in the same category as the pure scientists on that level, do you?

A No, but I was just—it was simply out of necessity for that—

Q Right.

A -- short period of time that I had to operate at that level.

Q Okay. And over the course of I think it was about the last ten years you haven't been all that involved in any of the literature, is that right, reading it?

A That's correct.

Q Certainly not reviewing it. Okay. Not doing—

A Right.

Q -- peer reviews or anything—

A Now that I'm having a chance to do that, there hasn't been much of substance with the few exceptions created in the last ten years.

Q Right. I want to ask you about policy issues. I just want to understand generally what your background is with respect to dealing with policy issues in relation to marihuana.

A When I was a civil servant and senior member of the Alcohol and Drug Commission, I was invited on various occasions to sit down with the deputy ministers and assistant ministers of health, talk about the various initiatives to deal with the various problems of drug abuse in the -- in British Columbia. I was involved in a variety of discussions as I mentioned, with very senior people in the Federal government, talking about policy issues. The Ledain—members of the Ledain Commission,

at one time, and simply members of the deputy—at the deputy minister level of the Health and Welfare Canada. We were talking about initiatives that might be taken to prevent the drug abuse that was being perceived as a community being of a major problem. Marihuana was very much of concern in their minds, whether that was an informed concern or not was beside the issue. They were very concerned about that and I was very involved in the discussions regarding what might—responses, Federal government or Provincial government or even municipal government at some stage. I was involved in some discussions with the—I was on a committee with the City of Vancouver Health Department in that regard.

Q Is that—when is—is that the '70's mostly?

A Mostly in the '70's when the primary issues and problems were concerned. I didn't—I have not been in a position where I have been invited to enter into those kinds of discussions in the '80's.

Q Okay. The sort of—the people that you're dealing with back then are not, to your knowledge, people that are involved in government to this—in this—in these days, as far as you know?

A I'm not sure about that question. I'm not sure what you mean.

Q Well, the—

A The people that I was dealing with, yeah, a lot of them have retired.

Q Yeah.

A The policies and the programmes that they initiated have changed because of changes in the economic circumstances of government and because of changes in the philosophy of government and because of changes in the personnel and the people in government.

Q Okay. So it's difficult for you to say today what manner government and bureaucrats are using for interpreting and coming up with policy?

A It would be fair to say I have no idea what information they're using or whether they're even bothering to look at the information.

Q I'd like to ask you about health education. I know you have a degree in the area. What, first of all, do you define health education as?

A Health education. Health education would be a body of knowledge that would prevent disease and would promote a lifestyle so that a person could realize their fullest potential.

Q I take it that's something that throughout—you've been involved in that throughout your career then?

A Through my teaching of medical colleagues, through my education of medical students, through hundreds of public lectures and other forums that I've had an opportunity, both television, radio, to participate in. I always took that opportunity to try and improve the level and quality of information around drugs and drug misuse in the community.

Q It's obviously restricted when you're doing that, you're restricted by the areas that you—the areas you have more of a specialty in, I take it?

A I didn't feel restricted in any regard.

Q Would you speak on any health topic?

A I would—I know my limitations. If there was a health topic I didn't have information about and didn't know much about, I wouldn't pretend to be expert in.

Q That's what I'm asking you.

A But I'm not sure what you're referring to.

Q Yeah. No, that's—

A I'm not very—I'm not very knowledgeable in tropical diseases.

Q Yeah.

A So I wouldn't speak—I wouldn't talk about the health issues of tropical diseases. I am aware of how—and I'm about to prepare a paper on how economics impacts poverty in the health of British Columbians and so I would feel expert talking about that.

Q That's my question, essentially, is within the health field, you have certain specialties and you wouldn't

purport to educate in every single health area, just in the ones you have specialty in?

A No, I've forgotten all I know about ophthalmology, so I wouldn't—I wouldn't teach anybody about ophthalmology.

Q All right. Just—

A But I probably have a broader scope of health education capability than all but a very few physicians.

Q I'd like to understand your—the Court to understand your current position, what you've been doing. I take it the position you're in is you've been in the same once since '88, is that right?

A No. I've been working in this one clinic, the Broadway Team, half-time since 1982. Since 1984 I added another day and a half, so I work four days a week as a troupe, a soldier in the trenches, seeing the chronically mentally ill, one every half hour four days a week.

Q So you—

A I used to do night calls, go with the police to various situations. I stopped doing that about three years ago, so I exclusively am working as a psychiatric physician in out-patient clinics with chronically mentally ill.

Q Since 1982 all the people that you've been dealing with have been chronically mentally ill or believed to be?

A No, until about 1985 I was still accepting referrals in a private practise that I'd set up which I had attempted not to see people who had drug abuse problems but my medical colleagues, desperate for somebody with some experience, would refer them to me, so I continued until 1985 and even in the Mental Health field, they tried to encourage me to get involved in what is call the dual diagnosis of mentally ill people, which became a buzz word in the psychiatric field, which means people that have two diagnoses, one a psychiatric diagnosis related to a mental illness and another diagnosis related to the misuse and abuse of drugs. I resisted getting involved in that primarily simply because I didn't want to be identified exclusively with alcohol and drug field. I'd been attempting to broaden my area of clinical experience.

Q So since that time in '85 --

A I take ‘88 because it’s the last time I was invited by my medical colleagues to give a significant paper in the field and I had stopped doing any forensic work around the same time, so I—that’s why I just pick ‘88 as an arbitrary date.

Q Since that—

A I gave a paper in Toronto to five hundred physicians at the invitation of the head of family practise at U.B.C. on the current state of hard drug use in Canada. That was a topic he gave me to talk on and I did.

Q That was in ‘88?

A Yes.

Q Since ‘88 I take it you have—have you had no occasion to be dealing with just non-mentally ill people who have had marihuana problems or been marihuana users?

A No, I have not done a private practise that involved that and so all of the patients that I’ve been dealing with that have alcohol or drug abuse problems have been people that have a primary psychiatric diagnosis.

Q I take it those people have some very different problems from some of the—some similar problems, but also there are some—

A I think what—

Q -- types of people that—

A Yeah. I think what this population—I’m sorry, I don’t want to anticipate your question.

Q Okay. I take it you’ve seen some people—you saw some people earlier on, especially in the ‘70’s who had a variety of problems and those types of people you’re not seeing any more?

A I would change some to many. And I continued to see those until about 1985. I continue to have to educate my patients about their misuse of psychotropic drugs to this day. It’s very much part of the educational experience of my current patients.

Q One other area I want to ask you about is the literature review you’ve discussed you did in preparation

for this case. Since the—in the mid-‘80’s you were, as I understand it, quite up to date on all of the literature relating to marihuana and its psychotropic effects and that sort of thing?

A Yes.

Q And you’re not currently as confident about your level of knowledge as you were in the mid-‘80’s?

A And I don’t want to—until I’ve satisfied myself with extensive reading, I wouldn’t want to say that I was up to speed, no.

Q Okay.

A But based on the information I’ve seen so far, I think I’m as close to the truth in this matter as any of the people that have spoken so far in this matter.

Q You, as I understand it, you had the opportunity to review a transcript from another court proceeding?

A That’s correct.

Q Is that right? And Morgan and Zimmer article?

A Yes, that’s correct.

Q About ten pages?

A Yes.

Q Some of the materials of Dr. Peck’s, that was just a few documents?

A Yeah, that was pretty superficial.

Q And then Mr. Conroy referred you to other articles dealing with marihuana. Is that a long list, if I ask you what other things have you read as—

A Oh, it’s not a very long list, because it’s all been completed in the last thirty-six hours.

Q Oh, okay. What are those articles?

A I think the—there was a paper on the Australian experience, there was a paper on policy issues related to the Australian experience, there was an article about the

therapeutic uses at recommendation of the American Health Association. There was one on the costs of the war on drugs, the cost to the community by the position the governments have taken to try and stem drug abuse in the community, and I think that's about it. There might be a couple of other minor ones, but there was a lot of material that you gave me that I didn't get through. For example, I didn't get through Reginald Smart's paper. I got through Collant and I got through Jones. I didn't get through Smart.

Q Collant, you're referring to the 1981 World Health Organization?

A No, his—

Q Striking the balance—

A -- his evidence in Hamon.

Q Oh, his evidence. The Australian experience one you referred to, is that the health effects article, about two hundred pages long?

A No, it's the summary.

Q The summary of that?

A Yes.

Q Or the summary of the other Australian reports.

A Yeah. I forget the name of the report. There's two—

Q Hall and Soloway and—

A The Hall report, yes.

Q -- Lemon?

A Yes, the Hall report.

Q Okay. So you read the summary of that one?

A Yeah.

MR. HEWITT: Okay. Just have one moment. Those are my questions, Your Honour. I think we probably—my friend's advanced I think six areas, so maybe if we go

through them one by one, I can give my comments. Most of them I have no trouble with.

THE COURT: All right.

MR. HEWITT: As I recorded, the first one is the effect of psychotropic drugs of all kinds and I don't have any objection to that.

THE COURT: Okay.

MR. HEWITT: Yes. The next one was the treatment and management of people effected by psychotropic drugs of all kinds. I don't have any trouble with that. Similarly with psychotropic drugs and effects on mental health.

The one about review of scientific literature on psychotropic drugs, I don't unless my friend can specify something in keeping with evidence, I don't—the evidence that we've heard, I don't know how that's made out. I don't know if you want to deal with that or move on.

THE COURT: Let's move on, find out what you do—you are prepared to accept.

MR. HEWITT: All right. Policy issues, I do have some objection with respect to that, mostly because that's the type of matter that one—it can change from year to year, decade to decade, just in my submission this individual doesn't purport to be up to speed on the current policy issues in relation to this.

THE COURT: All right. He clearly has experience in the past in his work.

MR. HEWITT: If he wants to give evidence about experience, his experiences and what he learned from those experiences, I'm not troubled by that.

THE COURT: Well, he may also wish or maybe ask questions with—in terms of opinion evidence regarding those experiences, not just what happened, but actual opinion evidence. It's—I take your concern with respect to up to date issues, but would that not properly be a matter of weight? In other words, if he gives opinion evidence with respect to policy issues effect in the control or relating to the control and regulation of drugs back in the early '80's, that evidence might have considerable weight, but any opinions about yesterday may not carry the same weight.

MR. HEWITT: Well, may be objectionable I think if they related to yesterday. They may just be outside the scope, in my submission, of the qualification. You can't—

if you have knowledge about something that was going on at one time, you can't know whether you can carry it forward and give opinions into another time unless you know an equal amount about that, and it differs because I'm not making the same submission with respect to the marihuana and the health effects and that sort of thing. But with policy, in my submission that's a little more sensitive in that sense.

THE COURT: All right. Well, it seems to me that his practical experience in that area is significant. It may not be the most up to date, but he may wish, based on his past experience, to give opinions in the field of a more modern nature or affecting more modern issues. And you can—you are certainly free to attack those opinions or suggest that they should have little weight because of his involvement being so little.

MR. HEWITT: Well, it may just—

THE COURT: In more recent years.

MR. HEWITT: The only objection may arise from the form of a question and if it arises at some point during examination in chief, perhaps we can—I'd raise it then. I accept what you're saying.

THE COURT: All right.

MR. HEWITT: Final one was health education; I don't have any objection to that.

THE COURT: There was one earlier one, the preliminary one, which is in the field of medicine generally.

MR. HEWITT: No objection.

THE COURT: All right. The one outstanding issue is the review of scientific literature on psychotropic drugs. Mr. Conroy?

MR. CONROY: I don't expect him to go beyond what limited information he has given the Court, and so the expertise solely relates to the process in terms of people applying for funding during the—for funding of scientific research projects. I'm assuming with some of the witnesses we've heard from and might hear from in the future have gone through that process, and so—

THE COURT: Is that a field of expertise? I mean—

MR. CONROY: Well—

THE COURT: -- if he's saying this is what actually happened when I was doing this job—

MR. CONROY: Yeah. Well, I just don't want to be in a position where my friend objects, saying that he has no expertise in that area. I mean, I don't think Professor Beyerstein had any expertise in that area, for example, or Professor Boyd.

THE COURT: Well, I remain far from convinced that it is a specific field of expertise in itself and I certainly am not convinced that this witness is qualified as an expert if it is a field. He is going to be qualified in areas such as health education, medicine in general and these other issues which obviously enables him to, through practical experience, in operating in those fields—

MR. CONROY: Yes. I can accept—

THE COURT: -- to give evidence, as Dr. Beyerstein did.

MR. CONROY: Yes. I could accept the Court's position that it may not be a specific field of expertise but I just wanted to make it clear that he has indicated he has gone through this process and he has experience in this process and so anything arising out of that type of process, I want it to be clear that I'm not precluded from getting into that, if it becomes an issue.

THE COURT: All right.

MR. CONROY: On the policy question, my submission would be that bad policy twenty years ago is still bad policy today. Nothing much has really changed in the policy area. I mean, we still have the same smoke and mirrors type of government approach that we had twenty years ago. We heard that from Professor Boyd first of all the change to hybrid offences, then the change to absolute and conditional discharges where they said well, you won't get a record but then you do get a record. Then we had S-19 which was the deemed to be pardoned, oh, but you still have a record, and recently we have the no traceable record concept of you don't have a record but you do have a record, so I don't think the policy has changed very much and I would submit he can give opinions based on what was going on in the past. I can put to him some of the policies that may exist today and have him comment on them as how they relate to the past and I would submit it is simply a question of weight for you to decide at the end of the day.

THE COURT: In terms of the expert evidence that this witness can give, I am satisfied that he is an expert and

can give opinion evidence in the following fields: (1) medicine; (2) the effects of psychotropic drugs on individuals and the treatment and management of people affected by the use of psychotropic drugs; (3) the relationship between the use of psychotropic drugs and mental health; (4) policy issues relating to the control and regulation of legal and illicit drugs; and lastly, since I've lost count, health education, both mental and physical.

MR. CONROY: Because he has indicated experience in teaching and training of people working within the drug and alcohol field, I'm assuming that the medicine and health education, that that's broad enough to include some of those experiences that he's described, just relating to what was in his curriculum vitae he mentions—

THE COURT: It was certainly one of the underlying facts that I considered—

MR. CONROY: I just wanted to be clear.

THE COURT: -- when concluding that the field of health education was a field of expertise that he was qualified in.

MR. CONROY: That's what I assumed, but I just wanted to be clear. And I'm taking that primarily from the description in his curriculum vitae in terms of the time with the Narcotics Addiction Foundation and the Alcohol and Drug Commission.

THE COURT: I note in all of those fields that you've specified, nothing's been said about alcohol addiction. I don't even know if that's a psychotropic drug.

A I was just trying to get the counsel's attention. In my—in the courts of British Columbia and Alberta, alcohol and psychotropic drugs has generally been the phrase.

THE COURT: All right. Well, that's why I asked the question.

MR. CONROY: Yes.

THE COURT: Because it suddenly occurs to me that he may well—

MR. CONROY: I certainly meant to include alcohol. I've always thought of alcohol as just another drug, so I fail

to often make the distinction but if you add the word psychotropic, I guess I should make the distinction.

THE COURT: All right. Well, what I'll do then is with respect to field number two, I'll revise it unless there's an objection by the Crown.

MR. HEWITT: No.

THE COURT: To the effects of alcohol and psychotropic drugs on individuals and the treatment and management of people affected by the use of alcohol and psychotropic drugs and field number three, the relationship between alcohol—the use of alcohol and psychotropic drugs and mental health.

MR. CONROY: We have about ten minutes to go. I'm prepared to start.

A I won't be long.

THE COURT: Promises, promises. Let's use every minute we have.

MR. CONROY: All right.

EXAMINATION IN CHIEF BY MR. CONROY continuing:

Q Why are you here, Doctor?

A Well, as a person primarily concerned with the health of people, both as an educator and as a physician, I'm—I've come to discover after twenty-five years of clinical experience that one thing that makes people sick is misinformation.

Q And how does that—

A And I—

Q -- relate to this issue?

A -- I hope I—I hope by making a contribution through my knowledge and understanding and experience and in interpretation of the evidence as presented in the court to make that information closer to some truth that I think is a collective responsibility of all of us, but I really do feel strongly and I've said many times in correspondence and in my teachings that misinformation is unhealthy.

Q And over the time of your experience, particularly in relation to alcohol and drugs, have you seen a lot of misinformation about these topics?

A I've seen—I've seen a lot of misinformation. I've seen a lot of fear and concern that's based on a poverty of information, incredible information. It's not that there isn't good research and good information out there, but it seems to me that there's been a real reluctance for political and other reasons to disseminate that information in a responsible way, and so I—and I still think that information needs to be a cleaner package so it can be more helpful to the citizens of British Columbia.

Q When you were involved with the Narcotic Addiction Foundation in the '70's, early '70's, and then the Alcohol and Drug Commission through the balance of the '70's into early '80's, were you aware of rates of use of various drugs?

A I would be—I would have the opportunity to read annual publications, either the Federal government, the Addiction Research Foundation or the research done by the foundations in British Columbia which would give the projected rates of use. Every time the R.C.M.P. would be negotiating their budget, they would put out some fallacious statistics and I'd be aware of those and I would be interested in what was really going on in the community, so I got my information from a variety of sources, but I was very much on top of that and that would be the kind of thing that would be discussed in various committees that I would be a part of too as well.

Q Was that a time in which there was a large rate of use of different types of psychotropic drugs?

A I think it was a very exciting time in this community's history and I think unfortunately with that time there was an increase in the use of drugs that the community and the medical profession and nobody understood the implications of. I think there was a dramatic increase in the use of marihuana, dramatic increase in the use of amphetamines. That had been going on courtesy of the medical profession for some time before the '60's though.

Q The amphetamines?

A Yes.

Q Okay.

A There were changing patterns of drug use that happened in the early '70's. Suddenly we had what was called an epidemic of heroin use in Canada in young right across the country. We had—we had needle use of a variety of drugs, primarily MDA and amphetamines, heroin always being primarily used through the needle here in Canada, and then all of a sudden cocaine started in the early '70's, cocaine started to appear more frequently and then by the end of the '70's it was a major problem. Then another pattern of use of the use of Ritalin and Talwin amongst the street-using population—

Q Just—maybe just for the benefit of the Court, when you say Ritalin and Talwin, what are we talking about there compared to some of these other drugs?

A There's another epidemic of Ritalin use currently going on in the medical profession treating attention deficit disorder. Ritalin is the one form of psychoenergizer or psychostimulant drug that is left on the list that physicians could prescribe. It's been used in the treatment of behavioural disorder in children, dyslexia and attention deficit disorder both in children and in adults. Because it was still being prescribed by physicians, it got diverted to the street and the street found that it and a new non-narcotic analgesic non-addicting drug that quickly proved to be very addicting, Talwin, they found out that in the Talwin compound there was a little concentrated capsule of Talwin that if you cooked it up with Ritalin, it gave you some sort of strange buzz and in places like Seattle and Edmonton, it took the place of heroin as the drug of choice used intravenously. So I saw those patterns change over the years, but basically, certain patterns were—LSD faded away. There was a little bit of PCP use in Canada. The concerns that developed in the late '70's in the States in the northwestern States and in the southeastern States about PCP never translated into Canadian experience fortunately. I saw the changes in the—I was in Hong Kong visiting their treatment programmes in 1974, continued to be aware of international initiatives to reduce the supply of opiate drugs. I saw the problems created by that. I saw the—and I've continued to be bemused by the way government is both involved in perpetuating the problem they're trying to prevent by a lot of their policies and initiatives. So there's a lot of different things in regards to that question. I hope I didn't obfuscate by trying to include too many in the list.

Q Ritalin and Talwin you said were drugs though that the—that doctors were still able to prescribe, right?

A Yes.

Q And—

A They being the main gatekeepers of most psychotropic drugs, if they're being abused in the community, the person that's primarily responsible for that is the non-informed physician.

Q So would the access to these drugs would have to be through a physician or a robbery of a pharmacy or something like that?

A That's correct.

Q Okay. And quite distinct from the other drugs we've been talking about, heroin, cocaine, marihuana, LSD?

A That's correct.

Q Okay.

A Yes. They have their own distribution systems.

Q So in terms of the policy or laws regulating Ritalin and Talwin, we're talking about a completely different policy approach compared to the—what we call the illicit drugs?

A Well, I think we're—it's different more for political reasons than it is for medical reasons.

Q Okay. Now, during that time period, with your familiarity with rates of use, do you know or can you tell us, was that a period of time when we had very—suddenly very high rates of use in terms of marihuana?

A Marihuana, I think the figure that I've heard bandied around was there were forty thousand regular marihuana users in British Columbia back in those days.

Q Okay.

A And based on my observations and experience, because—but I was dealing with a limited sort of clinical experience, but I also was seeing—going to house parties where U.B.C. university professors and everybody in the place would be smoking up and I'd go down to Cool Aid to the medical clinic and everybody in the living room would be smoking up. In our, because we were getting our funding from—through

governmental sources, the Narcotics Addiction Foundation, we had to be squeaky clean in that regard and any staff that was ever found smoking marihuana flagrantly was dismissed, so I always had to walk that fine line where there was a whole group of people in this—where it was sanctioned and yet a community where it's still illegal and they were still putting the choke on people that were smoking marihuana in the late '60's.

Q Given your experiences during that period of time in what you observed and the people that you dealt with professionally in the various capacities, was marihuana use, possession and use, a significant public health problem in that period in your—

A Yes, it was a significant public health problem, and it was a significant public health problem because the public perceived it as a significant public health problem and the politicians generally respond to the public. Programmes that needed funding from government would certainly promulgate marihuana use as a problem and would design programmes and initiatives, preventative in nature, for young people and older people because that—it would make them more amenable to get the grants that they would require to run those programmes, plus other programmes. In terms of it being a public health problem, those of us that were working in the field receiving and assessing people that were referred to us or self-referrals coming into the clinics, the detox centres, the residential treatment centres, the halfway houses, the out-patient clinics, marihuana was not seen as being much of a problem. It was seen as being a social phenomena that had to be considered because most people that had problems with drugs were multiple drug users. Rarely did a person that had a primary—that the drug of misuse was primarily marihuana would present to the clinic, but that's not to say there were few, but it was less than one per cent, less than one-tenth of one per cent. So at the reality level of treatment, it wasn't a public health problem.

Q All right. So—

A And part of my—part of our responsibility was to educate the public in that regard because they were killing themselves in cars, drinking alcohol, dying of cirrhosis at age thirty, if you lived in the skids. There were very significant drug public health problems and the preoccupation with marihuana diverted resources

and attention from the other more serious drug problems that we were having in our community.

Q And the other more serious ones you've mentioned, alcohol, is that the—

A Alcohol and—

Q -- first—is that the most significant one or where would you put that on the scale of most serious to less serious?

A In all the conferences that I've gone to in the last fifteen or twenty years in regards to this matter, any clinician worth his salt is aware that alcohol is the primary drug of abuse and is the primary health problem. I'm surprised at some of the things that I've read from—that you've provided me with where they're sort of equating alcohol with marihuana and it's almost comedic.

Q Why do you say that?

A If it wasn't so tragic.

Q Explain that to us, based on your experience.

A Well, in my teaching, my health teaching about alcohol, there isn't a system of the body in some vulnerable individual that can't get a very significant disease through the use of alcohol. Take a drug like marihuana, we're hard pressed to demonstrate any disease pattern of any significance, and I think that's become—and that was the same—is true of heroin.

Q Now—

A And I think there's a reason for that.

Q Would you explain that to us?

A I think the recent discovery of an opioid—the old discovery, an opioid receptor by Small and Snider back in the early '70's opened up a new area of brain research. But some of us had a question. Why did we get designed with an opiate receptor? Were they waiting for heroin to come along so that we could get high on it? Well, they've now in the late '90's, I understand, and I am not familiar totally with the literature, they have discovered a receptor for one of the cannabinols. In other words, the molecular action of marihuana in the brain is related to its compatibility with an already

formulated neuroreceptor, so in other words it's not like most drugs, synthetic and otherwise, they interfere with the normal homeostasis and metabolic processes of the body. What heroin and—does and I assume what this cannabinol does is it doesn't interfere with the processes of the body, but elaborates, if you wish, or enhances. Now, that does create problems. Certainly in heroin, it's one of the reasons for the problems of the very significant withdrawal, because what's happened is by using exogenous heroin, you suppress the body's ability to produce its own opiates that would normally go to that receptor site. That will probably prove to be the case with marihuana. I don't know what the implications of that are for the future. I'm—but we do here have something that is very similar. But I think the reason that there are not a lot of illnesses associated with drugs that use receptor sites as opposed to drugs like alcohol that interfere with cell membranes, metabolism of every organ of the body is why there's a list of thirty diseases that are directly related to alcohol abuse that people get. They're clear, they're well-known, they've been documented for many years. And it's the same, we have government—for the government, it's the third highest revenue producer in the Province of British Columbia, the sale of that toxic substance.

MR. CONROY: Just—well, I don't know if you want to—I was going to carry on in more detail.

THE COURT: Well, he's going to have to come back anyway.

A Oh, you mean I'm not through?

THE COURT: I know you tried your best. But we are resuming—

MR. CONROY: Next Thursday.

THE COURT: Next Thursday.

MR. CONROY: At 9:30.

THE COURT: Which is the—

MR. CONROY: I think you have another matter that you set in there briefly the other day, but—

THE COURT: It's a sentencing. All right. We will adjourn then to Thursday, the 21st of March 1996, 9:30, this courtroom.

MR. CONROY: Thank you, Your Honour.

THE CLERK: My file says it's Court 4.

MR. DOHM: We will find you.

MR. CONROY: We will find you, Your Honour.

THE COURT: But will I?

(WITNESS ASIDE)

(PROCEEDINGS ADJOURNED TO 1996 MARCH 21 AT 9:30 A.M.)