Information No. 23-23104208-01

ONTARIO COURT OF JUSTICE

HIS MAJESTY THE KING

v.

SAMER AKILA

P R O C E E D I N G S O N C H A R T E R A P P L I C A T I O N

BEFORE THE HONOURABLE JUSTICE G. ORSINI (VIA ZOOM)
on February 26, 2025, at LONDON, ONTARIO

APPEARANCES:

V. Mazza / K. Benzakein / A. Pashuk — Counsel for the PPSC

P. Lewin — Counsel for the accused

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Legend:

[*sic*] - Indicates preceding word has been reproduced verbatim and is not a transcription error.

(ph) - Indicates preceding word has been spelled phonetically.

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THE COURT: Good morning, everyone. All right, anything to address before we continue?

P. LEWIN: I don't....

K. BENZAKEIN: Perhaps I'll just tell Your Honour that related to my friend's objection on the grounds of litigation privilege raised yesterday...

THE COURT: Yes?

K. BENZAKEIN: ...I advised him yesterday that I would not be pursuing that questioning any further, so that matter's closed.

THE COURT: All right, thank you.

K. BENZAKEIN: Thank you, Your Honour.

DAVID NUTT: PREVIOUSLY AFFIRMED

THE COURT: All right, so I'll just remind you, Professor, you're still under your affirmation, so go ahead then, Ms. Benzakein.

K. BENZAKEIN: Thank you very much.

CROSS-EXAMINATION BY K. BENZAKEIN CONTINUES:

Q. Professor, I'd like to start with sort of a small matter that I hope you can assist us with. It comes from I believe it's the Johnson and Kreb 2015 study, it is Exhibit 27 in this matter, and you refer to it in your evidence in respect of the assertion that there is no link between the lifetime use of psychedelics and mental health problems in the previous 12 months. Do you remember giving that evidence? Oh, I see that you're hunting for something. You have a very small square of my screen. Okay, have you - I'll wait until you're....

A. I have the study, yes.

Q. Okay.

A. Okay, so they concluded no significant association between lifetime use and increased likelihood of past year serious psychological distress, mental health treatment, suicidal thoughts, etcetera.

Q. So, I just want to make sure that I understand what the parameters of this study were. In this study the researchers looked at the study participants' mental health over the previous 12 months, so the 12 months before the study was done, correct?

A. Yes. Let me be absolutely sure about this.

Q. Of course.

... PAUSE

A. Okay, yes, so that's what they did, as I see it. They looked a year after use, yes.

THE COURT: The year before use, I think is what you're asking. Did they look at the year before use?

K. BENZAKEIN: Well, let me ask a few more questions, Your Honour, because that's exactly what I'm trying to determine.

Q. It looks to me, Professor, that they looked at the previous 12 months with respect to the respondents' mental health, right?

... PAUSE

A. So, they took data from the years.... Okay. So, yes, they're looking at - as I understand it, they're looking at the mental health reports in individuals for that year and seeing if previous psychedelic use had any impact on those scores. And what they found was there was no significant impact except reduced in-patient mental health treatment.

Q. Well, I'm gonna suggest that that's not exactly what it says. One of the things the study authors say is that

they can't draw any causal inferences from the data. And you'll find that at page seven of the report.

A. Yes.

Q. Yeah. And do you agree with that conclusion?

A. Yes, this is an association study, it's not an experiment, no.

Q. Okay. And the other thing that is unique or particular about this study is that the study compares lifetime use of psychedelics...

A. Correct.

Q. ...and outcomes in the previous 12 months. Not previous outcomes over the person's lifetime, correct?

A. Correct, yes.

Q So, fair to say that the person could have used psychedelics 20 years ago and was reporting no significant mental health issues in the previous 12 months, right?

A. Correct, yes.

Q. Okay. There's no – there's no differentiation or isolation made of that factor, the previous lifetime use?

A. Correct.

Q. Okay. All right, moving on then, to the benefits of psilocybin.

THE COURT: Sorry, could I just stop you there, Ms. Benzakein...

K. BENZAKEIN: Of course.

THE COURT: ...because I think I'm missing the point. You're saying this study focused on the mental health impact of lifetime use by looking at the prior 12 months.

K. BENZAKEIN: Yes. So, maybe I'll try to do a bit better.

Q. Professor, the study had two comparator groups, right? The first was people who used psychedelics in their lifetime, right?

A. Right.

Q. And those people were asked about their mental health in the previous 12 months, right?

A. Correct. It was the other way 'round, I suppose. The population was asked about their mental health, but they were also asked other questions, one of which was have you used psychedelics in the past? And this paper examines the respondents to that question.

THE COURT: All right. So, they're comparing mental health of people in the previous 12 months, those who have prior use and those who don't have prior use of psychedelics. Right.

A. Yes. So, they say – if you look at Table 2, they say "ever used" versus "never used".

THE COURT: All right.

K. BENZAKEIN: Q. But to be clear, it wasn't a comparison of the mental health of people who had used psychedelics in the last 12 months, versus people who hadn't used psychedelics in the last 12 months, right?

A. That is correct.

THE COURT: Right.

A. It's lifetime use, not last 12 months use.

THE COURT: So, those in lifetime use could include people who used on one or more occasions but had ended 10 years ago, is that your point?

K. BENZAKEIN: It is.

THE COURT: All right, thank you. I understand that. Just give me a moment. ... All right, thank you.

K. BENZAKEIN: Thank you, Your Honour.

Q. Professor, I want to talk very briefly about the benefits of psilocybin – one of the benefits of psilocybin, in particular, that you identified, which is the ego dissolution benefit.

A. Mm-hmm.

Q. It's part of your evidence, and in your affidavit you explain that it makes a person feel atomized and outside of their body, right, those are some of the effects you described?

A. Yes.

Q. It places people outside the constraints of physical time and space that are ordinarily experienced, right?

A. Correct.

Q. Would you agree with me that there are circumstances in which experiencing ego dissolution that way could be extremely dangerous?

A. Certainly, there could be, yes. [Indiscernible].

Q. For instance – sorry, go ahead.

A. You wouldn't want to do that in the middle of performing brain surgery, for instance.

Q. Right. Or driving a car, right?

A. Or driving a car, yes.

Q. Caring for young children, right?

A. Correct.

Q. Okay. So, for some of these benefits of psilocybin there are also drawbacks?

A. Unquestionably, yes.

Q. And much will depend on the context in which the psilocybin is consumed?

A. Well, I think - that's a variable, there are also many other variables, but that's one, yes.

K. BENZAKEIN: Okay, thank you. All right.

Now - moment's indulgence, please. Your Honour, my colleagues just indicated that there's a person on Zoom using the screen name Josh R., we just want to make sure that that's not our witness before I go on to ask any more questions. Is that Dr. Rosenblat there, Josh R.?

DR. ROSENBLAT: Yes, I can sign off and sign back on later.

K. BENZAKEIN: Thank you very much.

THE COURT: Yes, if you could, please. Thank you.

COURT CLERK: He's now left, Your Honour.

K. BENZAKEIN: Thank you very much, Mr. Clerk.

Q. Okay. Get back – I've lost my screen which I'm sure everyone's sick of hearing me say. All right, so I think this'll be the last big area I'll ask you about, Professor Nutt, which has to do with something we covered yesterday about the adolescence of the research into psilocybin. I'm gonna suggest that we're still at a phase in the research where researchers are having a hard time isolating confounding factors to determine the true impact of psilocybin, would you agree with me?

THE COURT: Can you repeat that question again? Sorry, just repeat that question one more time for me?

K. BENZAKEIN: Sure.

Q. We're still at a place in the adolescence of the research into psilocybin where the researchers are having – are not quite sure if they've been able to isolate the singular effect of psilocybin?

A. Which effect are you referring to?

Q. Well, I'm going to suggest to you, and I'll take you through some examples that might help, that researchers like

yourself are still not exactly sure how much of the beneficial effects are caused by psilocybin and how much of the effects can be attributed to other parts of the studies or the non-clinical evidence?

A. Sorry, are you talking about psilocybin as a treatment for, say, depression? Is that what you're talking about or in terms of the clinical changes? I'm not sure quite what you're asking me.

Q. I understand. Why don't I move into more specific examples. I'm sure the fault is mine, so let me move into more specific examples and you can tell me if I've got it right. So, for instance, let's begin with the fact that therapy is a huge part of the psilocybin experience in controlled circumstances. You agree with that?

A. Well, let me qualify what you said. Therapy is given, there is no doubt therapy is given. We believe therapy to be useful and certainly our patients like it as well. We haven't proven that therapy is necessary for outcomes for reasons I said yesterday, I'm not comfortable with the ethics of that. But there are people who are doing studies without it and in time I guess we'll know whether therapy is critical or not.

Q. You say people are doing studies without it?

A. Yeah. I mean, there are commercial arguments for giving psychedelics to patients without therapy because it's cheaper. And there's also the problem that regulatory authorities like the FDA don't know how to regulate therapy, so companies that are trying to get marketing authorizations in this space are doing studies without therapy because they believe that'll be the easier route to market. I think that's bordering on the unethical, but that's up for the FDA and the Canadian authorities to decide when they get approached.

Q. And to be clear, we don't have any of that data in evidence before this court, right?

A. We do not, no.

Q. And in fact, I took you yesterday to – I believe you agreed with me that right now the standard protocol is psilocybin plus therapy, plus set and setting and so on, right?

A. Well, that is our standard, yes. I mean, a lot of other research is done in what is called psychological support, which is essentially the same thing, preparation and presence during and also a degree of integration afterwards. So, yes, I think that's the current best practice, yes.

Q. Okay. So, do you agree with me then that there's evidence from these studies that the introduction or the reliance on psychological support has been found to be a limitation on isolating the effect of psilocybin in these studies?

A. I'm not entirely sure that the premise is correct. The point about psilocybin is that it changes your mind so that you think differently about yourself or about things that you've done or about your depressive belief systems or about your personality. The output is a psychological output, it's not simply a physical output. What is quite remarkable, as I shared with you the other days, is that for psilocybin more than any other brain medicine, we've actually got the correlation between the brain changes and the psychological changes. But, if you were to say do we know – do other treatments, for instance, of depression not produce psychological changes, of course they do, and the psychological changes are the part of the response, they're part of the outcome. So – and they feed – they are triggered by the drug treatment, [indiscernible] other drugs they are facilitated by the drug treatment, they're not triggered because you keep taking the medicine. With psilocybin it's a

trigger, but the output is always psychological change. So, it's exactly the same for antidepressants. If you treat people with antidepressants with psychotherapy, they do better than if you treat people with antidepressants without psychotherapy. Psychological distress is always associated with - improvement from psychological distress is always better if there's psychological supports.

Q. In your study from 2024 that you did with Professor Weise...

A. Mm-hmm.

Q. ...that's exhibit 20 in these proceedings, Your Honour, you've written about the fact that with respect to ego dissolution, it shares significant similarities to modern psychotherapy and that it's difficult to tease out how much of the effect is psilocybin and how much of the effect is the therapy, right? I'll take you to page 827 of Exhibit 20, if you'd like to refresh your memory.

A. Page what, sorry?

Q. Page 827 of – and of course I've not made a note of whether that's the....

A. There is an 827 in the paper, yes, absolutely.

THE COURT: Sorry, this is Exhibit 20, you said?

K. BENZAKEIN: Exhibit 20, yes.

THE COURT: Sorry, just give me a moment. And you say this is the one with – sorry, page number or line number?

K. BENZAKEIN: Page number.

THE COURT: Oh, all right, sorry. Page number.... Yes, what part of that page are we looking at?

K. BENZAKEIN: Well, I'll try to summarize it, Your Honour, but it's at the top, it's the first paragraph that starts with "Second".

THE COURT: Yes?

K. BENZAKEIN: And it describes forms of psychological intervention and indicates at the – the middle of the first paragraph, let's say, two lines below where the last – where the letters A-C-T, I think that's the best tether I can give you.

A. Okay.

Q. And it begins with the sentence:

> "These processes may be similar to mystical experience and ego dissolution in orienting individuals outside of self-centred ruminative patterns and into positively valanced relationships to self, others and environment."

And it goes on to say that the differences are notable, and that psilocybin does improve or enhance those experiences. But I'm gonna suggest to you, Professor... I'll give you a moment, I see you're still reading.

A. Yes, yes, I'm there.

Q. ...that that shows us that there are other ways to achieve ego dissolution and one of them is by psychotherapy, right?

A. Yes, in that sense, you're correct. Psychotherapy – sorry, some forms of psychotherapy are strongly centered on trying to break the constraints, [indiscernible] what's called a sort of malice, some people's egos put on their thinking and behaviour. Sometimes it works, sometimes it doesn't, often it takes decades, but the principle of breaking down the ego to allow people to change is part of some psychotherapy, that is correct.

Q. And I'm gonna suggest also that similar benefits to psilocybin can come from other experiences, right?

A. Yes, other profound experiences can change the way people think. I mean, it's very common for people who have

had severe trauma to come out with very negative mindsets, that's PTSD, but there are examples of people who've had powerful experiences, emotional experiences which can lift depression. I mean, the most famous one that I quote is Pavarotti. So, Pavarotti, the singer, went through a phase of relatively deep depression until he was on a plane that crashed at Milan airport and he nearly died. And as a result of escaping from death, his depression lifted and that's almost certainly got something to do with the incident disrupting his brain processes and negative thinking.

Q. And I think you told us that other examples, like Jesus fasting for 40 days and 40 nights, right? You told us about that on the first day of your evidence?

A. Yes, breaking down the ego, there are many different ways of doing it and certainly putting yourself in a serious danger, a plane crash is not the ideal one.

Q. No.

A. People have understood for centuries that there are metabolic ways of doing this, but of course other cultures have used medicines and drugs like psilocybin.

Q. You also made reference in passing in the same section of your evidence to the Knights of the Round Table...

A. Mm-hmm.

Q. ...and I didn't understand the reference?

A. So, before setting out on their careers of trying to find the Holy Grail and bring Christianity to the heathens, they would usually spend all night praying, kneeling on a hard floor, suffering considerable pain, the pain would keep them awake which was necessary so they could carry on praying. A night of pain and lack of sleep produces profound changes - in most people quite profound changes in the brain which make the prayer more valuable, more powerful, more likely to motivate

subsequent behaviour. So, this was a way of allowing them to break away from the mental state they'd been in up to now, which was really about riding a horse and sharpening their spear or their lances, to getting closer to their object, which was essentially getting closer to God, being a servant of God. So, getting close to God involves breaking down your ego, because God is the opposite of the ego.

Q. I understand now, thank you. So, now I want to get into the specific confounding factors that were identified in some of these studies. And before I go on, I just want to make sure that I'm using the correct language, okay?

A. Mm-hmm.

Q. So, when I say, "confounding factors", what does that mean to you?

A. Well, there are variables which can influence the results of a study.

Q. Okay, excellent, so we're using it in the same way. So, I'm gonna suggest that one of the confounding factors, we've already talked a little bit about it, is the fact that therapy is delivered alongside psilocybin in many of these studies. Would you agree that that's a confounding factor?

A. Well, it depends what the question is. What is the question?

Q. The question that I'm asking?

A. Well, yeah, what is the therapy confounding, sorry?

THE COURT: It's a confounding factor to the extent that you don't know whether the psilocybin is causing the effect or the therapy.

K. BENZAKEIN: Thank you, Your Honour.

THE COURT: Is that a factor?

A. Well, we know that when we do placebo-controlled studies with the same therapy the psilocybin does considerably

better. So, there is plenty of evidence that the psilocybin is better than placebo with the same level of therapy, because that's what we do. The therapy is the same in both groups, the difference is just the drug or placebo.

Q. On the other hand, there is still effect – you're still seeing effect from the psychotherapy even in the case of placebo studies, right?

A. Yes. I mean – well, placebo isn't inactive. Most experts would say that in all forms of medicine, possibly with the exception of surgery, half of the impact is placebo, it's related to the desire to get better and confidence in the individuals who are giving you the treatment. So, placebo is not inactive, it's just less active than, in this case, the drug.

Q. In your study with Professor Weise, Exhibit 20 that we already talked about...

A. Yes.

Q. ...you indicated that the psilocybin effects may be converging with the effects of psychotherapy because there's significant overlap, do you agree with that? I mean, you said it. Have I got that right?

A. Yes. So, maybe you're asking this question: When someone has a trip is it the trip that gets them better or is it that they can use the psychotherapy better? Now, I have already mentioned this, and I don't have the answer to that, because we haven't done that experiment. Others have and believe the psilocybin itself can produce the change. My own personal belief, based on 40 years of [indiscernible] a psychiatrist and using many different drugs to treat disorders like depression is that inevitably psychotherapy will add benefit to medication, so I think that's almost certainly the case with psilocybin, but I cannot prove that, as I told you already.

Q. I just....

A. Maybe – maybe I could just actually explain the Weise study a bit more. The Weise study was looking at the psychological effects of the experience and to what extent they predicted outcomes well, and it showed that there are two things. There are the psychological changes, the insight etcetera that people get during the trip, which is a significant element in the long-term benefits from the psilocybin. So, it's possible, I suppose. Are you saying perhaps if people didn't have any kind of psychological change? For instance, if you gave – and people have asked me this, they've said, 'Well, I'm not gonna believe that psilocybin works as a drug, I think it's all psychological, why don't you give it under anesthesia to see whether that would also lift depression? I mean, my own view is that's both unnecessary and unethical, but it is an interesting question. Could just the biology of psilocybin make people [indiscernible] I see no reason why it would, but maybe it would. But I'm not sure how that helps us deal with questions as to whether psilocybin has a role in personal liberty or you know, cognitive – I mean, I don't quite understand how this is relevant to the case under discussion.

Q. All right. I want to extract for you some of the comments that have been made by some of your colleagues with respect to the confounding nature of psychotherapy, and you may not agree with them, but these are the comments that have been made by other members of your academic community. So, I'm taking you to the one that's in the Weise paper from 2024 where the authors including yourself identify significant overlap with the psilocybin effects and the psychotherapy. The 2018 study by Roseman, that's Exhibit 22, Your Honour, the authors note....

A. I think – sorry, I think you are conflating two distinct variables here.

Q. All right?

A. The Weise paper was focusing on the psychological changes such as insight which predict outcome. He wasn't commenting on the relationship of the psychotherapy with the outcome. The same with the Roseman paper, that was looking at the psychological experience of psilocybin predicting outcome. The psychotherapy is incidental, it's not been correlated because everyone gets it, so you can't – we don't have an arm that doesn't have the psychotherapy so that's underpinning in the mold. (ph) All we can look at is the magnitude of the psychological experience during the administration and the outcome.

Q. So, these are not my – these are not effects or limitations I've noted, I'm pulling out the limitations and effects that are noted by your academics.

A. Well....

Q. Just a moment please, if you don't mind.

A. Mm-hmm.

Q. And those limitations are the ones that have been identified by the study authors. And perhaps the best thing I can ask is whether you agree with the limitations that have been noted by the study authors as opposed to the sort of....

THE COURT: So why don't we go to Exhibit 22 and look at the limitations that are noted and have the doctor comment on them?

K. BENZAKEIN: Thank you. I'm sorry, did you say Exhibit 22, Your Honour? Yes.

Q. So, one of the limitations that are identified by the authors Roseman and – that were in Exhibit 22 are that the dose – well, actually, I'll say it this way, that the dosing sessions do not take place in isolation, that they are also flanked by preparation and psychological treatment as well as integration. And so, would you agree that that's a consideration or a limitation of this study?

A. So, sorry, the study, this study was asking the question what do the – what factors in the acute psilocybin experience, how do they relate to the outcome? That's what that study – so, this was what we call a post hoc, an after the fact analysis of data collected in the very first trial we did of psilocybin in treatment-resistant depression. And Leor Roseman was a PhD student of ours who went back and collected the data, who scored people's responses to the experience, and he said which of those, if any, have some bearing on the outcome? And he came up with essentially the oceanic boundlessness, that becoming – a sense of being part of a bigger entity was a predictor of good outcome. So, that's the effect of the drug. What I think they're saying, my interpretation of this paper, I'm an author on it, is that we don't know whether that is magnified by the psychotherapy that went on or not, because the psychotherapy was there. But all we can say is that the acute experience was predictive of the outcome in the constraints or within the confines of the trial as it was done.

Q. All right, I think I understand better now. I'm going to ask you to look – or to comment for a moment on what is identified by in the Watts article. I just need a moment to get to it. It's at Appendix B of your affidavit.

A. Yes.

THE COURT: Give me a moment.

K. BENZAKEIN: Yes, of course. I also need a moment. I'm sorry?

THE COURT: Sorry, I'm just gonna look for that.

WITNESS: I have it here.

... PAUSE

K. BENZAKEIN: I'm sorry, I've lost my screen again. I'll just need a moment. It's at the bottom of

page 37, which is page 74, Your Honour, of the application record, the last full paragraph at the bottom of the page.

THE COURT: Give me a moment to get to that. Page 74?

K. BENZAKEIN: Yes.

WITNESS: I'm there. Mm-hmm.

THE COURT: Yes?

K. BENZAKEIN: Q. I'm gonna read it to you, Professor:

> "Focusing on limitations of psychedelic treatment, an alternative explanation for the replicable benefits reported by patients here, is that the level of care and attention from the research team was exceptional, especially in relation to previous treatments they had received. This level of care will likely have enhanced transference relationships in the perhaps implicit desire of patients to get well for their therapist. Expectation is known to play a role in determining treatment outcomes." [And I'm just skipping the citations] "And it is likely that many of the patients in this trial had positive expectations and/or experienced a positive modulation of their expectations in response to their intense drug experiences and the positive attention they received from their therapists."

A. Correct. That's absolutely....

Q. So – sorry, go ahead?

A. That is correct. There can be no doubt that there was – they had very good attention and very good care and that would have truly been a contributing factor in their outcome. But it's unlikely to have been the sole factor, and I say that particularly in relation to her argument or suggestion that expectation may have played a part, because this study – this

was our first study, and to address that point in the second study which we haven't provided as an exhibit, but is the study out of which the Daws brain imaging was derived. In that second study, we looked at expectation and outcome from psilocybin, in this case, two separate treatments three weeks apart. And we found that expectation did not predict outcome. In fact, what predicted outcome was changes in brain flexibility, which correlated with cognitive flexibility.

THE COURT: So, what study was that?

A. I don't think we've provided that, Your Honour. It's a study Carhart-Harris, I'm the [indiscernible] author, it's in the *New England Journal*... No, that study is the one in the *New England Journal of Medicine.* There's a separate paper looking at expectation. We haven't provided – it's a paper where the first author Szigeti, it's published, I think, in 2023.

K. BENZAKEIN: Madam Reporter, Szigeti is spelled with an S then a Z, S-Z-I-G-E-T-I, that's right, Professor?

A. Correct, yes.

Q. All right, I want to take you to another example identified by one of the authors here and that's – I realized this morning that I've been mispronouncing this woman's name, it's Professor Gukasyan, that's at Exhibit 21. And if I can just have a moment to find my place.

A. Yes, I have it.

Q. We'll go to page 157, but I need to get there.

... PAUSE

K. BENZAKEIN: I'm so sorry, Your Honour, I just....

THE COURT: No, that's fine.

K. BENZAKEIN: The technology gets me every time.

THE COURT: Page 157, yes.

K. BENZAKEIN: Yes, and I will be there in a moment.

... PAUSE

Q. So, to pinpoint this for everyone, it's the paragraph above "Clinical implications"...

THE COURT: Yes.

Q. ...again dealing with....

THE COURT: Beginning with "A recent study"?

Q. Correct, "A recent study..."

THE COURT: Mm-hmm.

Q. "...suggests that expectancy effects and psychotherapy may account for some of the clinical benefit of psychedelic-assisted therapy." You agree with that, obviously, Professor? I think that's sort of what you've been telling us? Yes?

A. Yes, that's a theory. Yeah, quite.

Q. And then going on in that study which utilized a double-blind, double-dummy design – and I'll pause here, what's a double-dummy design? I didn't know what that meant.

A. It meant that both groups got two treatments. Both groups got psilocybin treatment, either a high dose or a low dose, placebo dose, and then they got another treatment. So, the group that got a high dose of psilocybin had a trip, were given placebo and the other group who got a low dose and didn't have a trip, were given the antidepressant Escitalopram. But everyone got the same number of pills, so if you got a high dose of psilocybin you were given two capsules for the next six weeks, the same way as those who were on the Escitalopram were given two capsules. So basically, there were dummy active treatments, psilocybin, and dummy antidepressant treatments, placebo versus Escitalopram.

Q. I understand. Thank you, that's very helpful. And is this the same – Escitalopram, is it the same study that we've been – sorry, I'll ask it a different way. Was there more....

A. This is the same study. Out of that study quite a number of other analyses have been made because it was a huge study with many variables. They couldn't all be written up in a single paper.

Q. All right. So, it's the same study population and the same methodology?

A. Absolutely.

Q. Okay. Thank you, that's helpful. I didn't know that - or I didn't understand that I should say. All right, going back to the paper, in that study which utilized double-blind, double-dummy design:

> "Both the high dose and very low dose psilocybin groups showed significant immediate decreases in depression, suggesting that the preparation and drug administration day procedures may reduce depressive symptoms even in the absence of high dose psilocybin."

I have that correctly?

A. Well, you got it correctly, but that data isn't in that paper.

Q. So, the paper is wrong?

A. Well, yes, because the first data point from the administration of the drug in that – our study, I believe was about a week, and during that time the placebo group, the low doses they're saying, had been on Escitalopram for a week. Now, I concede – and I'm not – I concede that the impact of the Escitalopram in that first week was considerable, more than one would normally see. So, I would believe that – I think it has

supported by the Goodwin study, which we haven't discussed either, the clinical trial. There is no doubt there is some benefit from having intensive psychotherapy over three days effectively with the preparation, dosing and integration. I don't think there's any doubt that will have some transient positive effect on people's mood, that is absolutely the case. That must be the case. But what they say here is not exactly correct. It wasn't just the placebo effect, it was clearly an Escitalopram effect or – you couldn't say there wasn't an Escitalopram effect, which means it could be Escitalopram or it could be placebo, or a bit of both, which is likely.

Q. Okay. I under – I see. I'm not going to go so far as to say I understand, but I see what you're saying. All right. So, the final study I want to direct you to on this question of confounding effect is the communitas study, so that's Kettner's study at Exhibit 29.

A. Yeah.

Q. I'm going to take you to page 13. Now my computer won't let me. And I'll just ask you generally before we get to the paragraph itself....

A. Mm-hmm

Q. Are you familiar with this study?

A. I am.

Q. And I'm gonna suggest this study was concerned with – well, I think you talked about it a bit yesterday, about the group – like, group psychedelic therapy?

A. Well, yes, this study is supportive of the idea that therapy or psychedelic exposure in groups as has been traditional in indigenous peoples, could have value, even extra value, than individual therapy because of the engendering of this sense of communitas which then may continue post the treatment

or the trip, to improve individuals' long-term relationships with their community, with other people.

Q. And the authors note that this is a known psychological phenomenon, it's been observed outside of the psilocybin context, right?

THE COURT: Sorry, what is known?

A. That is correct.

THE COURT: What's the known, sorry?

K. BENZAKEIN: The communitas effect.

THE COURT: Right.

K. BENZAKEIN: Q. And Professor, you'll agree with me, it's been pretty well studied, right?

A. Well, I'm not sure about well studied, but it has been studied, yes. I'm not an expert in communitas studies.

Q. Fair enough. But the authors refer back to research that's shown the communitas effect to exist at sporting events, right?

A. Correct. Correct, mm-hmm.

Q. When people all cheer for the same team?

A. Mm-hmm.

Q. At music festivals, right, when people are dancing together to the same music?

A. Yeah, mm-hmm.

Q. And during, unfortunately, disasters, so an earthquake, a hurricane, a plane crash, right?

A. Mm-hmm.

Q. When people bind together to do something as a group, we see this effect of communitas, right?

A. Correct.

Q. And during the discussion about the effect of psilocybin on communitas, the authors note that the best effects came from, according to the self-reports by the participants,

the experience of sharing – the experience of sharing and divulging experience with other members of the group?

A. I don't remember that, but....

THE COURT: Why don't you take us to where that is in the paper if you could, Ms. Benzakein?

K. BENZAKEIN: Yes, I'll absolutely try to do that. I'm actually gonna ask, Your Honour, if I may, for a brief recess.

THE COURT: All right.

K. BENZAKEIN: I don't exactly know what's happened, but I can't find any of my highlighting, so if I could have that recess, maybe 15 minutes...

THE COURT: All right.

K. BENZAKEIN: ...and I will – I am very nearly done.

P. LEWIN: Can I ask my friend – oh, that was my – I'm conscious of Professor Nutt's obligation. How close are we, Ms. Benzakein?

K. BENZAKEIN: I hope soon. My difficulties here were unexpected this morning, I'm afraid.

THE COURT: All right, we'll take the morning recess now then for 15 minutes.

K. BENZAKEIN: Thank you. And I do apologize.

THE COURT: No, that's fine.

R E C E S S

U P O N R E S U M I N G :

DAVID NUTT: PREVIOUSLY AFFIRMED

THE COURT: Do we have Mr. Akila online?

K. BENZAKEIN: I see him, but his camera is...

THE COURT: Okay, does he have his camera back on?

COURT CLERK: No, Your Honour.

THE COURT: Mr. Akila, you want to put your camera on, please?

COURT CLERK: It's on now.

THE COURT: There we go. Thank you. All right, continue.

K. BENZAKEIN: Thank you, Your Honour, for indulging me with an early recess. I think it will significantly shorten the amount of time left here.

THE COURT: All right.

CROSS-EXAMINATION BY K. BENZAKEIN CONTINUES:

Q. So, Professor, I'd like to take you again to the communitas study that we were talking about just a moment ago, and I have now located the passage I wanted to put to you.

THE COURT: Was that Exhibit 22?

K. BENZAKEIN: Ah....

WITNESS: 29. 29.

THE COURT: Oh, 29, all right. Yes, the Kettner study. Yes, okay?

K. BENZAKEIN: Yes, thank you, Your Honour. So, I'll ask everyone to go to the first full paragraph on page 13. That paragraph begins with "In line".

THE COURT: Yes?

Q. And I'll begin with the second sentence:

> "The acute experience of communitas in the current sample was predicted by several psychological and contextual determinants, most significantly by perceived emotional support during the ceremony, which in turn mediated some of the effects of rapport with group and facilitators rated hours before the session."

So, you see that, Professor?

A. I do, yes.

Q. And so, one clarification with language. Does "mediated" in this context mean paused?

A. Well, it means that they change in the same direction.

Q. Okay.

A. So, if you had improved - increased perceived emotional support with the facilitators, then that – more of that, the better the outcome. You couldn't say it caused it because you'd have to do an experiment where you did have it and didn't have it, but it is a correlation.

Q. Okay. And it doesn't mean – well, thank you. I won't make it worse by asking what it doesn't mean. So, I'm going to ask you then to go down a few lines to a sentence that begins with the word "psychological". I'm going to read to you from the end of that sentence, it begins with the word "importantly". Let me know when you're there.

A. [Indiscernible] paragraph is it?

Q. It's the same paragraph.

A. "Importantly", it's about two-thirds of the way down. Okay, yes.

Q.

> "Importantly, while communitas experience during ceremony was in itself correlated with positive outcomes, the path model revealed that all enduring positive effects of ceremonial communitas were mediated by the experience of communitas reported in relation to the retreat as a whole, i.e. beyond a specific ceremony. Hence, the enduring benefits of communitas were fully explained through the expansion of this positive social experience beyond the acute psychedelic state."

You see that?

A. Sorry, I.... No. Are we still on page 13?

Q. Yes.

A. So, I started with you, "Importantly, this extension of communitas beyond the ceremony was partly mediated by self-disclosure."

Q. Oh, no that's not the part I read to you.

A. That's why I'm lost.

Q. Okay. This "Importantly" comes right after – well, I definitely want to get you there.

A. I found it.

Q. Oh, have you found it? Excellent.

A. Right.

> "Importantly, while communitas experience during ceremony was in itself correlated with positive outcomes, the path model revealed that all enduring positive effects of ceremonial communitas were mediated by the experience of communitas reported in relation to the retreat as a whole, i.e. beyond a specific ceremony. Hence, the enduring benefits of communitas were fully explained through the expansion of this positive social experience beyond the acute psychedelic state."

Okay, I'm with you now, yes.

Q. Okay. And do you agree with this finding?

A. It seems to be based on the evidence, yes.

Q. Okay. And I'm going to now take you to the second "Importantly" which is where I think we got ourselves mixed up.

A. Right, right.

Q.

> "Importantly, this extension of communitas beyond the ceremony was partly mediated by

> self-disclosure, i.e. how deeply and honestly people shared personally salient material with the group. The establishment of social devices that facilitate emotional disclosure such as sharing rounds, thus measurably contributed to positive outcomes following collective psychedelic experience, at least in the current sample, consisting mostly of psychedelic retreat participants."

You agree with those findings?

A. Well, I have no reason to disagree, no.

Q. All right. Okay, so moving on from the studies then – and this is the last section of my cross-examination, so you are nearly done. I want to talk about you actually, so you won't need any of these studies anymore.

A. Okay.

Q. So, you believe that drugs are over-criminalized, right?

A. No, I believe that the decisions of criminal sanctions and the position of drugs inside or outside of criminal law is arbitrary and not evidence based. So, some drugs are over-criminalized and some drugs are under-criminalized.

Q. Do you believe that caffeine is under-criminalized, for instance?

A. No.

Q. Do you believe that alcohol is under-criminalized?

A. I wouldn't criminalize the use of any drug. I would approach drug harms, if that's what the purpose of criminalization is, in a completely different way to the way we present – approach it today. To explain why I don't think – you asked me the question is alcohol under-criminalized. We have tried criminalizing alcohol; it didn't go very well. And there are other approaches which I think most of us would prefer to

dealing with the harms of alcohol just in the same way as the criminalization of psilocybin hasn't stopped 35 million Americans using it. So, there are better ways of dealing with drug harms than criminalization. And I will say to you, you may not know this, but all but one of the different sections of the UN in the last couple of years agree that criminalization of drug use is inappropriate because it generally causes more harm than good.

Q. You founded a non-profit organization called... Oh dear.

A. Drug Science, yes. Actually, it's a charity.

Q. Okay, the charity, sorry. And that's drugscience.org, right?

THE COURT: What's it called?

Q. Professor?

A. Drug Science.

THE COURT: Yes.

A. Drugscience.org.uk.

K. BENZAKEIN: And Your Honour should have had in one of the emailed attachments one that's named "About" and then drugscience.org. Do you have that, Your Honour?

THE COURT: Yes, I do.

K. BENZAKEIN: Excellent. All right. Professor, I'm going to make a very strong effort to show you my screen. All right. Oh, I'm sorry, Mr. Clerk, I need you to allow me, if we could.

COURT CLERK: Yes. Your Honour, I believe the accused left the meeting. He's rejoining now.

THE COURT: Oh.

P. LEWIN: Yeah, he just messaged me. He needs to be invited back in.

THE COURT: Why is he leaving?

P. LEWIN: He got kicked out.

ACCUSED: No, I didn't leave. I got kicked out and I texted him, it wouldn't let me back in.

THE COURT: Okay, we'll try not to kick you out again. Thank you.

K. BENZAKEIN: Okay.

COURT CLERK: You now have capabilities to share screen.

K. BENZAKEIN: Oh, thank you. All right.

Q. So, everybody can see my screen now? Yes?

THE COURT: I see it up here.

Q. Professor, can you see it?

A. I can.

THE COURT: Just give me a moment.

K. BENZAKEIN: Of course.

THE COURT: I have it up on my screen anyway, from the exhibit so that's fine. Go ahead.

K. BENZAKEIN: Okay. Thank you.

Q. So, is this the drugscience.org home screen is what it looks like?

A. Well, it's not exactly – this is not a live screen to Drug Science is it?

Q. It's not because we can't make that an exhibit.

A. Ah.

Q. So this is a PDF. Well, you tell me if it looks like the same content, but because we can't make a website an exhibit - or at least I don't know how to, I've taken a PDF copy. I'll give you a minute maybe to... I'll scroll through it?

A. Yeah. I mean, the question is when was it taken?

Q. I don't want to give evidence, but last week.

A. Oh, okay. It's an up-to-date – that's all that matters. I need to know if it's up-to-date, then it's gonna be correct, obviously.

Q. Well, let me do this a different way, let me go to the internet. And then I'll stop sharing my screen.

THE COURT: It looks different when I look it up, but....

K. BENZAKEIN: Yes, I'm just – yes, I will go there myself. And I don't know how we'll make it an exhibit but perhaps Mr. Clerk can assist me with that after.

THE COURT: All right. When you go on the website and you go to "About"...

K. BENZAKEIN: Yes.

THE COURT: ...and then we get what you have in the exhibit, or I presume what is going to become an exhibit?

K. BENZAKEIN: Yes, that was the idea. That's why I took a PDF because I didn't know how else to do it. Well, what I'll do is I'll take the witness through this website and then I'll figure out a way to deal with the exhibit later, if that's agreeable?

THE COURT: Well, it's part of what shows on the website, when you go to the website and you click on "About", it comes up with a document entitled "About Drug Science", "Our Story". You see that, Professor?

K. BENZAKEIN: I'm not sharing my screen anymore. Let me get that back.

WITNESS: I'm fairly comfortable that is the correct website and the correct thing you're looking at.

THE COURT: All right. So, this is what's on the website. All right, go ahead.

K. BENZAKEIN: All right, I'm just showing that now...

THE COURT: Yes.

K. BENZAKEIN: ...just so the professor can be sure.

WITNESS: I see it, yes.

Q. Okay. So, this is sort of the landing page for drugscience.org, that looks familiar to you now?

A. Yes.

Q. Okay. And I'm just gonna scroll down quickly and then I'll use the PDF so that we can make it a proper exhibit.

A. Sure.

Q. You agree that this is the content from drugscience.org?

A. Yes.

Q. Okay, excellent. So, I will go back to the PDF. Can you see the PDF now? It says "About" and then "Research" right beside it?

A. Not yet. Not yet, no. Oh, I'm seeing a red line at the bottom says, "See our latest research", is that what you want me to look at? 'Cause I think I'm still seeing the website but I'm not sure now.

Q. Okay, let me try this a different way. All right, I'm getting some instructions here from my colleagues who understand this better than me. Okay, so I am now going to share the PDF itself.

A. Right.

Q. Okay, this is the PDF, share the PDF.

THE COURT: There we go.

K. BENZAKEIN: Okay. I'm so sorry that you all have to go through this pain with me.

Q. Okay, so here we are at "About" Drug Science, and I'm just scrolling down. This is the non-profit that you founded, right?

A. Well, it's not – as I say, it's a charity, there is a distinction in the UK between a charity and a non-profit.

Q. I'm sorry.

A. I do not get paid.

Q. All right. But this is the organization that you founded, right?

A. Exactly, yes.

Q. Okay. So, I've highlighted some portions here of the PDF that I just want to bring to your attention. So, this section here says "Our Story".

A. Mm-hmm.

Q.

> "Drug Science works to provide an evidence base free from political or commercial influence, creating the foundation for sensible and effective drug laws and equipping the public, media and policy makers with the knowledge and resources to enact positive change."

You agree that's still the goal of drugscience.org?

A. Yes.

Q. And I'll just – this gives a little bit more history, and I'll take you down to the next highlighted section describing the work that you do:

> "Together, they [meaning Professor Nutt and the committee at drugscience.org] work tirelessly to emphasize the role of science in the public discourse providing information on the actual harms and benefits of various drugs and challenging the myths that surround drug classification and legislation in the UK."

Is that still part of the goals of your organization?

A. Yeah. Well, we have expanded beyond the UK. We now have quite a major presence in Europe and also in the Commonwealth as you've seen from us helping initiate MCDAs in both Australia and New Zealand.

Q. Mm-hmm. Mm-hmm.

A. And even Canada.

Q. Yes, we haven't seen the Canadian one, but yes, I agree it's really expanded. And I'll just get down to the last two parts I want to put to you and then I just have a few questions and then we'll be done. So, in this section of the website it indicates:

> "The mission is to provide an evidence base free from political or commercial influence, creating the foundation for sensible and effective drug laws and equipping the public, media and policy makers with the knowledge and resources to enact positive change."

That's still part of your mission?

A. Yeah, I think that is our mission, yes.

Q. And finally, I'm reading to you from the ....

A. I see it.

Q. The title here is "Our Vision"?

A. Mm-hmm.

Q. It says:

> "To see a world where drug control is rational and evidence based, where drug use is better informed and people who use drugs are understood, where drugs are used to heal, not harm."

Right?

A. Correct.

K. BENZAKEIN: Could this be made the next exhibit, please, Your Honour, the PDF?

THE COURT: I think we're up to exhibit 30?

COURT CLERK: Exhibit 30, Your Honour, yes.

THE COURT: Exhibit 30 will be, we'll just call it PDF about Drug Science.

EXHIBIT NUMBER 30: PDF about Drug Science - produced and marked.

K. BENZAKEIN: Thank you.

Q. I take it, Professor, that when you say the mission of drugscience.org is to provide "an evidence base free from political or commercial influence" you believe that that isn't the present situation when it comes to drug policy?

A. Correct.

Q. And equally, when you say "creating the foundation for sensible and effective drug laws", you don't believe that's the present policy when it comes to drug interdiction?

A. Correct.

Q. And finally, when you say, under "Our Vision", "To see a world where drug control is rational and evidence based", you don't believe presently that drug control is rational and evidence based, right?

A. Yes.

Q. And I'm gonna finally suggest to you that your work on the MCDA model included efforts to change policy, drug policy that is?

A. Well, there's no question that the MCDA has changed drug policy, not much, but it certainly also created quite a lot of consternation in policy makers who now realize that many of their policies are not evidence based. They haven't necessarily changed them, but they are clearly being held to account for not changing them because of this evidentiary base.

Q. And that was part of your goal wasn't it?

A. No, the goal was to do what the Mission said, which is essentially to determine – essentially, to understand, use scientific evidence to understand the harms of drugs and then to develop policies which better reflect those harms and particularly to help reduce those harms.

K. BENZAKEIN: Moment's indulgence, please. Thank you, Professor, those are all my questions.

WITNESS: Thank you.

THE COURT: All right. Mr. Lewin, do you have any questions?

P. LEWIN: No, I do not. Thank you.

THE COURT: All right, thank you. I have no further questions either, so thank you very much Professor, we appreciate your evidence. You're free to go.

WITNESS: Thank you.

THE COURT: All right, Mr. Lewin, does that complete your case then on the constitutional challenge?

P. LEWIN: Yes, it does, Your Honour.

THE COURT: All right, thank you very much. So, Mr. Mazza, are you dealing with the next witness?

V. MAZZA: Yes, I am. I'll be dealing with my witnesses from here on out.

THE COURT: All right.

V. MAZZA: I wonder if – I told Dr. Rosenblat that I'll email him, and he'll need a little bit of lead time. I wonder, Your Honour, if we could return in 10 minutes?

THE COURT: Sure.

V. MAZZA: And I'll have Dr. Rosenblat return then too.

THE COURT: That's fine. Are we still thinking we're going to finish him today? We hope?