Conscious Life presents

Psychedelics and End-of-Life Existential Distress

Guest: Dr Anthony Bossis

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[00:00:05] Meagen Gibson

Hello and welcome to this interview. I'm Meagen Gibson, your conference co-host. Today, I'm speaking with Dr Anthony Bossis, a clinical psychologist, clinical assistant professor of psychiatry at NYU Grossman School of Medicine, adjunct professor of Religious Studies at the University of Ottawa and an investigator at the Lundquist Institute, UCLA.

For nearly 20 years, he's been conducting FDA-approved clinical research with a psychedelic compound, psilocybin. His psychedelic clinical and research interests are the treatment of end-of-life existential distress and furthering our understanding of consciousness, meaning, and spirituality.

Dr Anthony Bossis, thank you so much for joining me today.

Dr Anthony Bossis

Hi, Meagen. Great to be here.

Meagen Gibson

I want to start by just saying that I really respect your long, deep history in studying psychedelics since before it was fashionable and trending. I'd like it if you could start by telling us about the history of psychedelics with people as part of end-of-life care.

Dr Anthony Bossis

Yeah, thank you. It's been my primary interest how these medicines or compounds can really, ideally, help us die better because we don't die too well. We haven't died well. Also, how the

experience itself, what some call existential or spiritually oriented, may assist in that. What does that mean that humans even have these experiences? Why is that?

[00:01:44]

Yeah, my interest in this goes really far back. Even as a kid, I was like a lot of kids early on, what is death and little death terror when you go to bed at night. I think it triggered an early interest or need to better understand what is a death.

As the years went on, into my 20s, I got increasingly interested in existential philosophies and comparative religion. That led to an interest in this part of medicine, palliative care, end of life, and of course, psychedelics.

I read very early on some of the prior research, and that just fascinated me because I was trying to understand how can we die better and came across all that lovely research from over a half a century ago.

And then kind of put together spiritual experiences, which I was interested in, and death and dying, in that some of the first trials with psychedelics, with LSD, specifically, was given to people with advanced cancer who were close to death and who had very challenging existential and psychological and spiritual suffering or distress.

And those results, that research was really very impactful on me and my life. It's interesting to note that the first two indications going back a half a century to the start of this research, one was that, working with this existential distress at the end of life, and the other was working with people with alcoholism. Those were the two first indications.

Fast forward all these years, and the research, again, began clinically in this so-called second wave of the research. Well, it is a second wave. I should say so-called renaissance. I'm not sure it's a renaissance yet. With trials, we had done administering psilocybin this time, not LSD, to people with advanced cancer.

And now we see that those studies continuing and more to come, and we hope to get that into palliative care settings. So that's how this began. I forget what your actual question was. That's my interest. Let's talk more about that in specifics.

But I will say this about this indication, Meagen, for end-of-life distress and the anguish we can often have at the end-of-life. Not always. The end-of-life can be a period also for meaning-making and even for transformation, although also with suffering. So far, it seems to me, I think it's reasonable to conclude that the results with advanced cancer and end-of-life patients with psychedelics have been the most robust, these findings.

The reason I think that is, and it makes sense, is that even for a healthy person to take these medicines under the right conditions, the experience, consciousness, whatever that is, brings us into this landscape that typically involves this existentially-laced theme and motifs around death and dying and what is life.

And so it would make sense that these experiences are really tailor-made for this therapeutic indication. There's a lot of other therapies going on these days, and we hope they all work well. But

this one, really, the clinical indication matches really it lines up with what these experiences do often enough.

[00:05:51]

Hopefully, I'll say this a few times today, but it's good to start off with it. These experiences, and we'll talk about this peak or spiritual, mystical experience or a psychological experience people have or can have, are not solely generated by the psychedelics. They also occur naturally in humans. They've been occurring naturally for thousands of years, not in the same way of a six hour experience.

But we're wired for these meaning-making states. But psychedelics now in the right setting, in supportive setting, in safe setting, can fairly reliably generate that. And it's been just remarkable to witness some of the changes in the experiences people who are dying or are going to die soon enough, and we're all going to die soon enough, or hopefully not too soon, have some kind of change. And we could talk about the experiences they have.

Meagen Gibson

Absolutely. I definitely want to get into that. Since we're here now, we've just jumped into the death and dying, which is inevitable for all of us. But if somebody hasn't had the experience of being with someone who is dying, because I think most of us have lost someone in our lives, but we haven't necessarily been with someone who's in a lot of pain or anguish or existential crisis and been with them in the dying process.

What kinds of experiences do the dying have and how is psilocybin helpful for that?

Dr Anthony Bossis

I should point out what psilocybin is, so I think your view is probably no. But psilocybin is a naturally occurring compound found in many species of mushrooms. It's one of a group of drugs called classic hallucinogens, or classic psychedelics that involves LSD, mescaline, psilocybin. So they're similar in their serotonergic makeup.

So first, people don't die well. We know there's a large body of literature how people don't die well, typically. We can, and some do, of course. The growth and the influence of the last 10, 20, 25 years of hospice and palliative care has been enormous. Such gifted people in those disciplines really pushing the conversation forward in the culture, right?

It's always been like the big taboo. Ernest Becker wrote about this big taboo of death. But we're getting better at it. There's best-selling books every month, and there's movies, and death and with dinner and all this. So we're getting better as a culture talking about it.

But people still die with, as you said, existential anguish and demoralization. We can discuss that in a few minutes. And while we're better at medicalized treatments for cancer and other diseases, where we're getting better with that, and we're better at controlling pain, we don't have a big toolkit to help address and reduce the often profound level of this emotion that we're going to stop living in this very brief life.

And so you were asking about their experience with the psilocybin. How does it help?

[00:09:19] Meagen Gibson

Yes, specifically, how is psilocybin helpful in that? What is it about that particular medicine that is...that addresses exactly that part we haven't gotten right yet?

Dr Anthony Bossis

Right. Again, these compounds, psilocybin LSD, they typically - again, in the right supportive settings - generate these existential questions and explorations. What am I here? What is consciousness? What is life? Some call them spiritual. It doesn't matter what you call it. It's semantics in the end.

But...and so the person coming into these trials...And to be in one of these trials, you need to have, of course, that medical diagnosis, but you also need to have a co-existing psychological diagnosis, psychiatric diagnosis reflecting depression or anxiety. That's why you're coming. These medicines don't treat or help cancer or any end of life disease, but we do hope to help the associated distress.

And so what we find, I can share the findings real quick, and then we can go into more stories about it. We do know, through now, a number of trials we've put out that there's a dramatic reduction in depression, in anxiety, in hopelessness, and something called demoralization, which is a pretty difficult and hard to treat syndrome that's separate from depression.

While depression can be treated with pharmacology, antidepressants, to reduce the symptoms, demoralization is more of a sense of existential distress, a loss of meaning, a high level of burden, a loss of hope.

And those features are not typically helped by medication. What they're helped by are these meaning-making approaches. There's a handful of meaning-making therapies that have been around for a little while and coming more into play.

And so this experience to do this transcendence state. So the person is in an altered state for roughly five or six hours, and for about three of those hours, it's very intense. It's the peak part of the arc.

In those experiences, people report a lot of things, but report insight into possibly what consciousness is, or even if not, for a sense of gratitude for having lived this one life, even though it's going to end, and a true acceptance, which is always remarkable to hear.

We all know we're going to die, although we all deny it every day. We can, on some level, accept it, but we don't really accept it. There's really a sense of acceptance into the mystery of whatever this might be.

Others may have an experience that consciousness may continue beyond the death of the body. Others recalibrate, redefine what it is that the self is. "I'm not just my body. I'm not just this disease or cancer. I'm something more enduring", so that we hear a lot.

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And we hear a lot of things about a life review and revisiting relationships and what's important. Even going forward, what's important to live in the moment. We hear a lot about love, so that's something we hear often, loving kindness towards self, towards others, and people speak about a greater love.

So that's some of the data in terms of those features that are reduced and some of the themes. We could stay with that more. In terms of the depression, anxiety, and hopelessness, and demoralization reducing, we also see in two important trials at NYU and at Johns Hopkins, we found an increase in existential well-being, an increase in quality of life.

And all those features sustained through the end of the study, and we did a... For those who were still living, many have since died. The ones who were surviving, we interviewed them four and a half years later from the NYU sample, and they continued to report these dramatically reduced levels of demoralization, the hopelessness, depression, which is really remarkable.

The interesting part, Meagen, is that some of the more robust findings were correlated or linked to this what we call a mystical experience. That's a term that's around for thousands of years, of course, and found in the great spiritual traditions and religions and poetry and humankind. A recent Pew study showed around half of Americans report having some kind of experience in their lifetime.

The measure we use was developed back in the early 60s in the first research, probably by a doctor named Walter Pahnke. And we still use that measure today, which is interesting. It's a little more revised and refined and a better statistical measure.

But the strong of that experience, which is defined as unity, that all things are connected, a sense of sacredness, a sense of transcendence, transcending this body, ineffability...The stronger that, the better the outcome clinically.

It doesn't mean not having that is not therapeutic, but that so far has been associated with these better outcomes. So that's interesting. What does that mean? Why would these themes be so connected to a positive outcome? So we can go from there.

Meagen Gibson

Well, yeah, you're doing my job for me, and I appreciate it, which is asking the next best question. Which is why is... I love that you talked about mystical experience, but then you defined for us what that actually means, what a mystical experience feels like. So connectedness, and I hear connectedness a lot in our interviews.

And I'm going to ask you an existential question, which is why are we so disconnected? Why do we have such a feeling of disconnection? And how does psilocybin generate or open the possibility of reconnection and that feeling, facilitating that feeling of connectedness?

[00:16:22] Dr Anthony Bossis

What a great question. I wish I could give you a good answer.

Meagen Gibson

I know. I was like, "I don't know if you can answer this, but I'm going to ask".

Dr Anthony Bossis

This is the ineffability of it. So one of the features is ineffability. Literally, it transcends language. Another feature is called the noeta quality, coined by William James. We're encountering something profoundly real in a sense, as if it's ultimate reality, as if it's more real than this or this is part of that.

But it's rare to hear someone say after a session "That was helpful or not helpful or indifferent, but whatever it was, it was just a temporary drug effect". You hear that that way. It's as if the language is more like, "Wow, that was like opening consciousness for a few hours into more of consciousness, into something that's authentic and it speaks with authority". And that's what gives these experiences, I think, the enduring effects, because it just feels so real.

So yes, what are the experiences people often speak about? It's one of the features, is all things are connected, literally connected. We're not separate. Of course, the implications for that socially and for humanity is huge. I mean, if we're all connected, how do we hurt one another? How do we... We hear that a lot throughout time, throughout spirituality. You're hearing this in your interviews with all your interviews...

We don't know how that happens, but it certainly seems that these experiences, Abraham Maslow's called it peak experiences, the great psychologist and mystical, it doesn't matter what we call it, but part of these experiences is that kind of insight.

And again, these happen naturally, so people have these experiences without drugs. People of near-death experiences report having these kind of insights. People have it spontaneously. Athletes have them. It could happen in meditation or prayer or people playing music, all kinds of things. And you get that glimpse, that quick insight of, We're all connect... this is all connected. It's all one thing".

There's something interesting called the overview effect. Do you know what that is?

Meagen Gibson

Say it again for me. Overview. No, I haven't. Explain it...

Dr Anthony Bossis

It's afternoon...

[00:18:56] Meagen Gibson

Oh yeah! Yeah, when they get that first view of the globe, the little blue marble from space.

Dr Anthony Bossis

Yeah. Carl Sagan, the wonderful Carl Sagan, called Earth the pale blue dot. This little thing suspended in blackness. And there's many accounts like that. There's a famous one, Edgar Mitchell, the Apollo 14 astronaut, on the way back to Earth, looking out the window of his spacecraft, had a complete mystical experience, just like you would see on a psychedelic.

He speaks about everything as one and we're all connected and the astronaut we're all came back, actually, came back, left NASA and founded an institute to explore more of this in the research.

So humans are wired for these transcendent experience, when we have them, these insights seem to be available to us. There are other experiences, too, but in terms of this conversation. And to why that is, I'll leave it to people wiser than me, but it seems there's something important there.

And I think the question is the one you asked, why is that? I think we all should be asking that, why would nature, or whatever this all is, why would it do that? Why do we have these experiences where we experience things are connected, where we experience more love, where we experience more compassion, where we can lose fear of death and dying.

Why? I'm glad you asked it. I hope someone can answer it, but that's our life goal to keep working on that. Why would that be?

Meagen Gibson

I love that you also seated us in the place that we're all capable of those experiences, and we're all entitled, if you will, to those experiences. But sometimes through the process of life and living, and also pain and suffering, whether that's relative or specific to a disease like cancer, we can lose touch with that more and more and more, and that the restoration of that provides relief and peace and restores hope and things like that.

This isn't, woo-woo talk, this is actually data that you're finding from this research. And so I'd actually love it if you can really help us understand what the research process is like. How do you do psychedelic research? How is it conducted?

Dr Anthony Bossis

Great. Good question. Thank you. Yeah, it's remarkable that these experiences happen. By the way, the mystical experience. Again, these are features that were developed to capture whatever that experience is, so it's not perfect, but so far they seem to correlate with these greater outcomes, not only in this population, but also with smoking cessation, with other applications, and back in the 60s with alcoholism as well. It's really interesting.

How do we do this research? For these trials, and most are similar in the setup, people are, of course, screened to see if they're eligible. There are some ruleouts, there are some

contraindications regarding medications or other diagnoses or fit for the study. Why does a person want to be there?

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Once they're screened and given informed consent, in research, we have that starts the process. It's really three components, three stages. The first is preparation, where we're preparing the person to have this medication experience.

For many, it's the first time, and it will be an extraordinary experience, probably in many ways. Helpful, difficult, challenging, dark, joyful. We want to help them prepare for whatever might happen, and I'll come back and discuss what we do in those preparation sessions.

Then after these stress trials, there was a few weeks of that, now they're a little shorter in time. But then there's this all-day medication session where they come in, in this case, have psilocybin. It's an all-day experience. There are two facilitators in their room at all times, and we're the same ones who are working with them since the beginning. So we stay with them until the arc of the trial. We get to know each other very well, and that matters. We're going to come back to that.

Then following that experience are these, what people call, integration sessions. So supportive sessions to talk about what happened, help them, or they're helping us help them understand what happened, how to maybe apply it to their life.

In terms of the preparation, a lot of things happen in those days. We're getting to know them. We want to do a life review. How does cancer or whatever disease that's coming into play affect you? While you're here, what is your intention which matters? Talk a bit about your life, the important places, the people that were important, the spots that didn't go so well, the places you fell short, the good, the bad, and the ugly. So get a sense of all that.

And part of that is to understand the arc of their life enough that if things came up during the experience and they began to speak about that person or that event, we have some awareness of it. So we all write, and then we could, if need be, just support them through it.

A big part of the preparation is to also develop trust and rapport. Because that's crucial. They feel safe in the room, safe with us. We tell them, trust the medicine, but trust consciousness, trust wherever it takes you. Trust, of course, the clinical team.

And the main guidelines are no matter what's arising, so when psilocybin gets to take hold, it can be very dramatic. Things can move at an incredibly rapid speed. Images, thoughts, experiences are unfolding in a very dramatic way like a roller coaster, and that could be a bit destabilizing and difficult.

We tell them no matter what's arising, stay with it, stay with it, move into it. We're here, we're watching your body, you're safe, we're monitoring you medically, but just go with the experience. If you need us, let us know. You can always hold a hand with prior permission to help ground them as they move through it.

But the matter what comes up, even dark, awful images, to move into it, to encounter it, to engage it. And by doing so, Meagen, it's usual that it transforms to an insightful teachable moment. By

moving into whatever comes up, even death itself, go into it, see what's there, you're safe. But by avoiding it and running from it and beginning to get anxious, it only it fuels it.

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So that's part of the guidelines, to let go and be open into the unfolding changes. Like you would in a meditative experience, right? They have this session, they lie on a couch with headphones and eye shades. Those are there to encourage an inward direction into their interior, into this just changing landscape of an alternate state of consciousness.

It's playing six hours of a playlist, mostly classical music, not lyrics, music to help support the experience. They can always remove their eye shades, take it off if they have to and sit up. By doing so, they may slow down the experience, enduring a very high level of panic, if they can't stay with it, they can always sit up and it'll slow down a little bit, like taking the foot off the gas a little bit.

But typically, they stay in that position throughout the day. They go to the restroom, they may sit up, get some water, if they need us, they can ask us for help or reassurance or support. But typically, we tell them we'll talk more that night or really the next day and weeks following. But this is your day to go into the experience, learn, be curious, see what's there.

Then there's these hours and days of follow-up where we address what happened. Hopefully, they find enough meaning there to apply it. Part of these experiences are not just to have a one-off. The great Huston Smith, the comparative religion person who was very supportive and had a psilocybin experience in the famous Good Friday study in 1962. He says, the spiritual experience doesn't necessarily make you a spiritual person. It's what you do with it.

So the insights we'd like people to apply to their life. So if something came up with a prior relationship that is not going well or it's unresolved and it's been a long time and the person is still around, maybe you approach that person. It's an arc of how it looks.

Meagen Gibson

As you're talking, I'm so glad that you brought up sitting with whatever comes up because we've done a good job of talking about the more, if you want to label them, positive experiences of connection and safety and mystical experiences. But we don't often, at least not popularly, think of mystical experiences as having some dark elements, right?

All of life includes both birth and life and death and darker things and coming to terms with either your own behavior or the behavior of other people and how the world has affected you and treated you. It's not all cotton candy rainbows, if you will, right?

Dr Anthony Bossis

No. I'm glad you said that, and it's important that we talked about that at least for a few minutes. It's not all rainbows and peaches and cream. There's even a spiritual language for it; dark night of the soul. There can be profoundly disturbing harrowing experiences. People would call it, I don't like this language, but a bad trip if someone's at a concert or somewhere.

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But that happens in the experience as well in a different way because now they're supported and they're safe. Again, the point is when that's coming up, move into it, engage it, why is it happening? Learn from it. It's come up for a reason for you. And then by doing so, we see change.

But physically, they're relatively safe medications. We do rule out certain things. Arrhythmias and hypertension, if it's untreated, it could raise heart rate and blood pressure. But psychologically, it can be very, very difficult. Very difficult.

Meagen Gibson

Contextually, in case people don't know, is a patient hooked up to monitors and things, monitoring heart rate and breathing rate and minor monitoring to make sure that they're not having some cardiac event or something when they're having a difficult experience? It's just existentially difficult, not physically and risky or something like that, right?

Dr Anthony Bossis

Exactly. We tell them and they know this, that they're hooked up, we're doing blood pressure regularly, we're monitoring the heart rate, all of that. We tell them your body is safe, even though you might feel distortions in your body. "I feel my chest is rising, my arms feel funny, I hear the blood running through my body".

"You're safe. We're with your body, you're fine. It's being checked. So go with the experience. We got you here. Go, go. You can leave and move into the landscape of consciousness, whatever that is". But yeah, it can be very, very difficult. We don't know what's going to happen. We can't predict. We could tell them how best to move into the unfolding, but no one could say to you, "You're going to experience X, Y, and Z".

In these trials, there are moments of profound bliss and joy and sets of connectivity like you talked about and love and something really amazing goes on in terms of whatever we're doing here and whatever life is and death.

There's also profoundly disturbing, it can be, moments that are just very, very difficult. And that's why it's done in this way. It's always been done in this way, even in Indigenous cultures with these settings, not just to take it and nilly-willy go somewhere where you can't control your environment.

So that's really important, and that's why it's done this way. We don't get those serious adverse effects. We have challenging times, but by staying with it, they move through it. If you're out somewhere, that just might be an unending panic attack...

Meagen Gibson

Which is incredibly unpleasant. Then you're in it for hours, right? You've talked a lot about set and setting and integration afterwards and support, and you went really quickly by something that I just want to go back to momentarily because I personally feel it's just so important, and I know that you do, too.

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Not to put words in your mouth, but just the idea of consent and establishing beforehand what would be acceptable support for a person, whether that be physical or emotional. You're not going to decide in a session. If you're having a really difficult experience, you're not going to then ask for something that the facilitators are going to grant unless you've established that beforehand.

Dr Anthony Bossis

It's a great point, especially these days, because there's a lot of conversation around, are these safe? Actually, we're starting a new trial now, a multi-site psilocybin trial for people in palliative care with less than two years to live. But in all trials now, in the consent and the preparation we're... and I'm trying to sign this...

This has been going on for decades, even the early research. If someone's in real bad trouble and they're having a hard time, we call it to personal grounding. Just holding their hand while they're under can help a lot. It connects them to this experience. Or they can sit up, take everything off, and they'll slow it down as well.

So we'll ask them "Would that be okay? In case you do ask for it, can we provide that?" and that's granted in advance. There's no touching beyond that. That could be just when we check in. We check in periodically to make sure things are going okay if they're not speaking. "Just checking in, Meagen, is everything okay?" And usually, it's, "I'm fine, get away. Don't bother me".

But yeah, that's really important. It's also interesting that despite them being in a very altered and seemingly far away place, this transcendent altered state beyond the body, they're usually also aware they're in the room. There's kinda this hybrid awareness for much of the time. So they could ask for help or sometimes they'll even want to report what's happening.

Then we'll just tell them, we tell them in advance as well, "Don't feel a need to report to us as it's unfolding, because then by doing so, you're stepping in and out. We're taking notes. We'll talk about it tomorrow in the weeks that come. Just go with the experience. If you need us, get some water, go to the restroom, sit up, help, you're anxious, then we're there".

But the goal of facilitators are to support the unfolding changes in awareness for the person, to support their unfolding and whatever that might be, because we don't know, but to safely support that, that they're safe physically, they can't get up and start walking around because they wouldn't be able... They could fall.

So they're safe physically, and then they're safe psychologically. Someone's having a very, very dark time to remind them, "You took this medicine a few hours ago. You're going to come back to normal consciousness as soon We're here". There are many ways to address that that we do.

But that's the goal. We're not interpreting, we're not telling them what they're seeing because wherever they are is way beyond where I am. That's really important regarding the safety.

[00:36:18] Meagen Gibson

I also want to ask you, in the data, how do you account for the mystical or the spiritual? Scientifically, do you account for mystical and spiritual experiences being the same or different? I want to know all about how do, you know, such a subjective experience for people, but I assume that many people have similar experiences, so how does that get accounted for in data and research?

Dr Anthony Bossis

It's a great question, and it's obviously imperfect. We're talking about subjective experiences. A lot of it's probably captured in qualitative studies where we interview them and then take what they say and analyze it in a qualitative model. Their words are actually mapping out the experience and qualitative research is important.

Well, it's not quantitative. It's by having hundreds and thousands and tens of thousands of people having an experience on anything, you begin to see all these points, where they cluster and what is the more common human experience.

In terms of this language, people don't have to have any spiritual belief. Often they don't. But people often speak in an existential or philosophical or spiritual type language. It doesn't really matter what words we give it. It's just words.

The one thing we can map out is at least what we call this mystical experience. It is a measure called the MEQ. Again, it's been around since 1962 and it's been revised and it's still being used. Imperfect, but those features, unity, everything's connected, transcendence, transcending time and space, ineffability beyond words, sacredness, the noeta quality, deeply felt positive mood.

Those few features are... The measure has those, but this is dozens and dozens of questions to come up with a score. And so we can measure that. Who had this so-called mystical experience. But a lot of the language is so-called spiritual existential.

The language they describe it is difficult for them to talk about. They write beautiful journals. We ask them to write about it. We publish those. We publish their words in these qualitative reports. It may not be spiritual. People could just...

The idea of, I have a greater sense of gratitude for having lived. The suffering, while enormous, also provides some way to provide meaning. Meaning is everything in life we know now, just even outside this discipline. Meaning-making is important.

As you know, we're seeing in the psychedelic community as well, a focus recently on grief and mourning as important experiences. Grief and suffering and sorrow while they're unpleasant, they also allow... They seem to be kind of a portal into some maybe understanding of what we're doing here.

The great Viktor Frankl, *Man's Search for Meaning*, he was a Holocaust survivor, and he talks a lot about this, that suffering is difficult, but suffering without meaning is worse. We need...and so that

meaning seems to be cultivated. People report in our trials through these scales, a higher sense of personal meaning, whatever that might be for that specific person.

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And that seems to help buffer these depression, anxiety, all those so-called negative experiences at the end of life. So we're seeing the results. Hopkins had the same results. There are more trials going on now with people who are at end of life or advanced illness. We're going to start a new multi-site trial.

Hopefully, whenever this happens, these drugs are still illegal. We're in FDA trials only. But then someday, in hospice and in other settings, people challenged by whatever that end of life brings us could have these and the possibility of having an opening into an experience that might be helpful or meaningful. It won't be for everyone. They can be very difficult.

We want to be upfront about these. I think some of the dangers of the current landscape is that everyone paints it with one brush. "These are great". This is complicated. We're still in trials assessing safety in all of that, and that's important.

Meagen Gibson

Yeah, absolutely. It reminds me of something you said earlier, which is it gives people a sense of higher personal meaning, but that's entirely subjective. I think sometimes, I've definitely been guilty of this, of projecting my own higher personal meaning on what it must mean for somebody else, having come out of one of these experiences.

Oh, now they must think this or believe that they're going to absolve themselves of worldly possessions. We have these visions of what we think that is going to mean for how a person walks through life. But higher personal meaning is entirely subjective and is literally that personal, right?

Dr Anthony Bossis

Well, of course, what you just said applies to the world all around us right now, the trouble we're in. We can't assume, and we need to follow other people's experiences and respect them compassionately but you're exactly right.

Again, I mean, that's a really important point you're raising. People have experiences and assume that's the only one there is, and everyone's having that, and we don't know. All we know is these medicines, these compounds, for a brief period of time, open change, alter consciousness. Language is imperfect here.

Seemingly to a greater landscape or more of consciousness or something. Well, spiritually that's a nice name for it. I mean, although the religions have this mystical core, but we could discuss it in the secular ways as well.

And in that brief time, there seems an opportunity to learn and cultivate insight, and people come back very changed, as they deal also with naturally occurring experiences, naturally occurring important moments in their life.

Being in love, having a child, a trauma can do that, grief can do that, these experiences can do that. But why? Why do humans have these experiences? That's the take-home test for everybody.

[00:43:33] Meagen Gibson

I was just going to say, I'm guessing you don't have an answer for this thing because that's my... Even more so, what do we know about death and dying and consciousness as a result of this research? And what do we hope to find out maybe in the future?

Dr Anthony Bossis

Well, that's really exciting. You're probably familiar with near-death experience research. The great Raymond Moody wrote a book back in 1975 that changed my life called *Life After Life*. That was the first time that phrase was used, near-death experience.

Now there's serious research going on where we're even comparing what people report who've had complete cardiac death and then they're resuscitated, who we know they had no heart activity. And others who report having this on their own outside of time, and outside of a healthcare model, and there's quite a growing literature on this.

And those experiences are interesting. They align with what we see in the mystical experience, not exactly. They are more of a white light going towards some unfolding experience, ancestors appear. But the values of compassion and love, this is brief, those values are the same.

And who knows, they report, everyone has seen those writings over time, and there are some wonderful papers coming out. They report experiencing this life review of all the things they've done, the good and bad, in a compassionate way. They report that consciousness or life does go on.

So we hear all kinds of things. And so who knows? Does that tell us anything about death, about consciousness? That's the final frontier. What is death? What is death? I think some people hear that as being, "Well, who wants to ruminate all day about death?". Well, it sounds dark, and no one should walk around all day...

But if we could keep it in our minds a little bit, even a little bit each day, by doing so, we reduce, hopefully, the fear of it that's going to come at some point and able to live us more fully in the present. That's the point of it all. All the great religions, death becomes the practice, right? That matters, death awareness.

And what is death, Meagen? We don't know, but it's fun trying to hear these accounts that people will come back after a few minutes of having cardiac death. Now, to be fair, those people probably have brain activity still occurring, and we don't know what that is so one side may say, "Well, it proves that consciousness goes beyond the body. And the other side could say, "Well, it's just a dying brain. It's the end of life...

Meagen Gibson

Chemical reactions. Yeah...

[00:46:47] Dr Anthony Bossis

Yeah. Which we don't know. My response to the latter would be, why would nature do that? How is that evolutionarily adaptive? If that view, the Darwinian view of the whole ball game here is that most things, religion, being in love, all of that nature does to keep us together, survive the species, keep going.

They could say that it was a function to that. We have meaning and all that just to keep us together and cohesive. I find that a bit cynical because the other thing that it's...maybe that's really the experience of consciousness. It seems as easy as plausible.

But in any event, why would a person who's dead, now dead on the ground, not functioning, beginning, why would nature do that? The person's gone, so where's the evolutionary adaptive component to that?

Someone can answer that by saying, "Well, when we die, we release into this open-ended experience of all these themes and feelings, and then it fades to black". Okay, but again, why are those experiences and feelings there in the first place? This is for another day of conversation, but it's certainly profoundly interesting.

Meagen Gibson

This brings up a good point, which I really want to ask you how the researchers are impacted by this research. How are the people conducting these studies and holding space for people having psychedelic experiences on psilocybin?

And in hearing these tales, and reading the journal entries, and being with people who are in palliative care, do you see a consistent way that the researchers yourselves are impacted by this?

Dr Anthony Bossis

I can't speak for others, although I speak with others. But it's a very powerful story. I worked in palliative care before the research, and around these themes, but to be with someone towards the end of their life and is a teacher enough.

I mean, it's incredible to be around when something's really profoundly going on, and to witness that is incredible, and to be as supportive or present for them in any way we can. But you add psychedelics to it, this experience, it's very touching.

There's no doubt that it affects you, particularly hearing these transformative stories and watching the difficult ones, and watching the sorrow and the suffering, but also the joy or the gratitude people talk about. How are we not touched by that? It'd be silly to say we're just scientists and it doesn't move us.

Any therapist, any clinician should be somewhat affected by the human emotion. They're teachers. It's been very profound for me, and it facilitates my own exploration of what this all is in our

conversation today. Because we're seeing some of the results. We see what people say in NDE. We see what people say in these mystical experiences, naturally and with medicine.

[00:50:42]

It's more experience for us to learn from. Or science could say it's more data, but I like the word experience. So yeah, it's been very touching. And they're so courageous. And these are the people who are responsible for this psychedelic thing happening. Without them, there's nothing.

And we stand upon these courageous people. We stand upon the shoulders of giants going back half a century, the first researchers. And beyond that, throughout the arc of history, these medicines have been used in many ways in indigenous cultures, and the experience has been happening, for as far as we know, cross-culturally and throughout the arc of time.

Again, they form the foundations of many of the great traditions and religions. So this is science, and it's done carefully, but the experience that they're having is very moving.

Meagen Gibson

Absolutely. Okay, so let's talk about the future. What does the future look like for psychedelic use, practice, research? I know that you don't have a crystal ball, but what does the future hold and what are we looking at as far as people having accessibility to these types of medicines outside of research and clinical trials?

Dr Anthony Bossis

Wow. Okay. You're going to get a limited answer here, but I'll try. We don't know what the future holds in any way, especially these days. Who knows? Que sera sera. Well, I can stay in my lane for a moment. I'll try to stay in my lane completely.

We're on track to have these medicines, hopefully approved at some point by showing repeated efficacy and safety through phase 2 and phase 3 trials and increasing number of patients that their FDA approved for a certain clinical indication; end of life distress, depression, alcoholism.

So that's the track we're on. Outside of that, I'm just going to speculate for a moment, but I'm not in that other lane there. So that's what we want to happen. Outside of that, I don't know. States are independently changing their own laws to have these accessible, and a lot's going on. It's a very fluid situation.

I think I speak on behalf of all the researchers that whatever does happen, we hope there's a safe package. This way we do this screening, which I'm not sure how can happen in all settings. A careful preparation, people who are trained to help somebody, the session itself, the integration.

How does that happen in all these different manifestations of this? I don't know. I don't have answers for that. It's moving pretty quickly in the landscape as we read every day. I don't know. I don't think we have any really easy answers.

How do these medicines even get out there? How do we scale up all the therapists needed in a short time? If it's two years, five years, longer or less. How do we assure safety? How do we

discuss these experiences that aren't typically available to us every day? It's a different kind of research. It's beyond the research. It's something very profound to humanity. How do we do this? How do we load them to the masses in this way? I'm not sure.

[00:54:32]

So it's easy for me to stay in my lane that way and just say, where you are doing research, we want to have more and more data, more and more safety, more and more good experiences, therapeutic experiences. Then hopefully FDA can support this and approve it for certain clinical forms of suffering.

Outside of that, Meagen, you may have better answers than I do. It's complicated, but we do hope whatever happens, it's done with safety in a sober way, with respect for each other and for the experiences and for safety. Que sera sera. What will be, will be, right?

Meagen Gibson

Absolutely. It's far out of our direct control, isn't it? But you have far more influence over the future, for sure, than anybody else. And I appreciate you being with us today. How can people find out more about you and your work that you're doing?

Dr Anthony Bossis

Well, let me ask the other question, I think, because...In the future. In terms of this indication, we are doing more trials. We're about to start a big multi-site trial. Other people doing trials in hospice and palliative care and cancer work. We're seeing this indication get a lot of attention, thankfully.

And ideally, we do see these at some point available to people who are suffering. I don't do much. You can Google me and email me, but the inbox is crazy. When this study is up, it'll be announced. It's already on so-called ClinicalTrials.gov. People can go there and see all the trials that are coming out.

This trial, our next trial, is going to be limited to only palliative care centers at the sites where it's taking place, so everyone can't just go be part of it. I'm not really answering your question, but we're looking forward to the future. Why not?

Meagen Gibson

Absolutely.

Dr Anthony Bossis

That's part of, in closing, that's part of, I think, the hallmark of these experiences. One, it could recalibrate our relationship to suffering, which is crucial, right? Because it allows us to just accept the unfolding of everything. Going to the future. Everything has changed.

And if we can accept with equanimity even the most cruelest, difficult things in this life, then we do better. Life isn't easy, but we do better if somehow there's a sense of acceptance and equanimity

throughout it that allows us to cope better. And we see that happen sometimes in these trials, and that's really key.

[00:57:28]

Of course, by doing so, people can experience the great parts of this existence where we're here, "My God, how did we get this one? We got pretty lucky, right? We got life as brief as it is on this...On Carl Sagan's pale blue dot".

But can we somehow change the way we respond to suffering and all that? So that, yeah, we unfold into the future with, hopefully, acceptance, but to the future.

Meagen Gibson

To the future. Thank you so much for being with us today. I know everybody really appreciates it.

Dr Anthony Bossis

Thank you, Meagen. It was a treat. Good seeing you.