

# Blood Town S1-E10

## Psychedelic Logic

[00:00:00] **Penny:** I'm Penny Dearmin and this is Blood Town.

There are elements in the case that seemed strange or bizarre to the majority of people, including law enforcement. We can still use our rational mind to understand a scene that most people will never encounter. The actions taken by those present might not seem as strange and bizarre when we examine what their experience or prior history has been.

One potential influence on their state of mind is the tea that tested positive for DMT. And I had never heard of DMT before this case. And I learned that it's a psychedelic drug. It is [00:01:00] something that we produce naturally in our own bodies, and it's also present in other animals and plants. DMT is the main psychedelic ingredient in a South American brew called ayahuasca, or aya for short. Dr. Rick Strassman, author of *DMT: The Spirit Molecule* joins us today to discuss the effects of DMT that he observed during his research, which was the first US government approved study of its kind in over 20 years. He has published over 30 peer-reviewed papers as Clinical Associate Professor of Psychiatry at the University of New Mexico School of Medicine.

**Dr. Strassman:** Psychedelics are mind manifesting drugs or mind disclosing drugs.

They modify every mental function simultaneously; your feelings, your thinking, your [00:02:00] perceptions, especially your visual sense, sometimes auditory, emotions, you know, physical experiences being heavy or light flying through space. You can have visions and voices which seemed to either come in that which appeared to either come in from the outside would be generated internally. So, they modify every aspect of consciousness.

In our study, we gave it intravenously because by itself it's not orally active. If you combine a DMT containing plant with another plant which inhibits the enzyme that normally breaks it down in the gut, you can use it orally.

And the most common way that occurs is in a brew called ayahuasca. When you smoke or inject DMT, it works instantly within a few heartbeats. When you drink ayahuasca, which contains DMT, it [00:03:00] might take a half hour to begin working, maybe an hour, then it lasts three, four, five hours. You feel pretty normal in maybe six or eight hours. When you smoke DMT or it's injected, it peaks in two minutes and you feel pretty normal or at least, you know, back to a, you know, a normal state of consciousness within a half hour.

**Penny:** That's kind of interesting since the people on the scene were likely drinking it, so it would have a longer effect than in your study where you injected it and it was pretty rapid.

**Dr. Strassman:** Yeah. If you smoke DMT or you inject it, you're pretty incapacitated for maybe three, four, up to five to 10 minutes. You can't really move around if you use a full dose, but with ayahuasca, you can control the dose a little more.

You can get super high. In which case you wouldn't be able to move. Or there's a lot of, you know, lower levels of intoxication which are [00:04:00] available if you regulate the amount that you drink.

**Penny:** How would you kind of compare DMT as a psychedelic to something like MDMA or mushrooms? Because I think people are more familiar with those drugs than they are DMT. It's not something that everyone knows about and more people know or have heard about MDMA, mushrooms, or LSD. How would you kind of compare those different types of psychedelics as far as effects or experiences?

**Dr. Strassman:** Well, comparing DMT to LSD and to psilocybin, all three belong to what's called the classical psychedelics.

But the effects are quite comparable. The main difference is on the duration of action. With LSD, it can last 10, 12 hours. With mushrooms, they can last six to eight; with smoked DMT, it's just over a half hour. The time course of oral ayahuasca is comparable to the time [00:05:00] course of psilocybin.

So, MDMA is a different kind of drug. It's a kind of amphetamine as opposed to a classic psychedelic. It's kind of a psychedelic amphetamine. The stimulant effects are probably more prominent than the psychedelic ones. It is also called ecstasy or Molly. So, MDMA has got a comparable time course to psilocybin the four to six hours. You know, pharmacology is quite different. Instead of activating serotonin receptors, it releases serotonin. It modifies the function of dopamine. And you know, generally that's not the case with the classic psychedelics.

**Penny:** So, that's what gives it kind of its feel-good effect that people hear about associated with Molly or ecstasy.

Okay. That makes a lot of sense. Obviously, it depends on what generation you grew up in. And some of our audience is going to be familiar with these category of [00:06:00] drugs and some people are going to have absolutely no idea. So, I think it's really good to understand those underlying mechanisms, and so I appreciate you explaining that to us.

**Dr. Strassman:** The subjective response to MDMA is quite different than what occurs when you take a classic psychedelic. The classical psychedelics produce a lot of perceptual effects: visions and voices. And you know, the emotional tone can be all over the place. I could be terror; it could be ecstasy. It could be panic.

It could be calm. It could be no feelings at all. You know, the emotional properties of MDMA are quite prominent. You know, it's called ecstasy for a reason. It makes you ecstatic; you don't have anxiety, you know, generally, I mean, it depends on the dose and the purity and the people that you're around and your preparation, but, you know, generally the emotional effects of MDMA are quite [00:07:00] ecstatic and blissful; the perceptual effects aren't especially strong. There's some sparkling in the air, but the full-blown visions that you get with LSD or psilocybin or DMT aren't present. There's more, you know, side effects from MDMA too. It's a bit more of a stimulant.

You'll clench your teeth; your pulse and your blood pressure increase. With classic drugs like LSD and psilocybin, there isn't all that much of a stimulatory response. The heart rate can go up or down depending on your mood and things like that. When you smoke DMT, it's quite stimulating.

With respect to the heart, it'll really increase blood pressure and heart rate. With ayahuasca, you can have elevated blood pressure, lower blood pressure, there can be variable effects; It isn't a stimulant, it's more of a classic psychedelic experience.

**Penny:** You talk about the set, setting, and drug, as far as this framework to explain the different [00:08:00] effects that can take place when someone ingests one of these psychedelics. Can you maybe go over that?

Cause I think that's a good framework to explain why people have different experiences when they ingest these categories of drugs or substances.

**Dr. Strassman:** Well, the experiences themselves are the same, you know no matter what, there's visual effects, there's emotional effects, but one's response to them, what you do with them, your understanding of them, you know, those depend on the three, the three legs of the tripod as it were.

The drug, that usually means that the dose. The set, which is the state of the person at the time they take the drug, their mental health, their physical health, their experiences, their expectations. Yeah, one aspect of the set is one's intention, what you hope to get out of your experience. And I think that needs to be emphasized more these days.

The last of the tripod legs [00:09:00] is the setting, which involves everything other than the person who's taking the drug. It's the other people in the room. It's the environment: is it outside/inside, cold/warm? And it also includes the state of mind, the set of the people in the setting. Are these, your friends? Are they enemies? Are they researchers?

Are they strangers? You know, why are you doing the drugs around them? Is it for fun? Is it for an experiment? You know, the experiences, as I mentioned earlier, are comparable, but the way in which those experiences are turned can be quite different depending on the set and the setting. One example I like to bring to counter that these drugs have got any inherent beneficial effects is the case of Charles Manson who used LSD on his followers, but for a completely different purpose, completely different people, [00:10:00] a completely different model. You people that took LSD with him were disaffected, violent sociopaths who were kind of lost and Manson presented this structure, this cultural and psychological framework, which he then repeated over and over indoctrinated his subjects while they were a suggestible and open and vulnerable under the influence of LSD, you know?

So, they became completely dedicated to a cause; they were relentless serial killers. So if you compare the outcome of the Manson model, so to speak, with the outcome of mystical experience studies, it's completely dependent on who's taking the drug and why, and who the people are around you.

**Penny:** You don't really know what is going to happen when somebody takes a psychedelic. I'm by no means trying to say that it, it makes people into murderers. That's not what my argument [00:11:00] is here. I just want to make sure the audience understands what are the factors that go into, you know, transforming that experience from one that is meant to be spiritual into one that maybe turns negative.

**Dr. Strassman:** Nobody who took LSD with Manson became a monk. Nobody who's taken psilocybin for mystical experiences has turned into a serial killer. So, it depends why you're going into the experience. That determines the outcome more than anything else.

**Penny:** Yeah. And the two individuals on the scene when they had previously taken DMT, it was for spiritual practice, for healing purposes. So, and you call DMT the spirit molecule. How does DMT help facilitate, getting in contact with spirituality, maybe having an experience, a healing, how does that come to pass?

**Dr. Strassman:** I speculate that DMT changes the receiving [00:12:00] characteristics of the mind/brain and consciousness complex and allows you to perceive things that you normally can't. You know, whether those things are used for good or for ill, if you're tapping into bad thoughts or bad energies or bad spirits, or violent tendencies, or you want to be that way, the spiritual part of it can be turned to a malevolent use.

But most people think about spiritual and especially the spiritual use of psychedelics in the context of healing, obtaining a more enlightened state and they can do that if you're prepared, if you know what you're getting into, if you're in a supportive environment, if the drugs are pure.

If you stack the deck in favor of a beneficial experience and you can call it spiritual if it taps them to things that you're [00:13:00] normally not aware of.

**Penny:** One of the other effects that you describe is a loss of normal time perception. I'm not asking you to explain something that happened at the scene, but one of the things that took place is that the individuals thought that 20 minutes had passed when in fact two hours had passed.

Is it possible for an experience on a psychedelic to create that sense of a loss of time?

**Dr. Strassman:** Yeah, that's quite a common description of what occurs. In our study giving intravenous DMT, it would work on people for maybe 15, 20 minutes and they come out of it and they would ask, how long was I out?

And I'd say 15, 20 minutes. And they say, it seemed like five hours. That's a common description of effects. With the longer acting drugs like psilocybin, the time effects are more variable; long periods of time might go by quickly, short periods of time [00:14:00] might seem to take forever.

I would say usually people describe a lot going on in a short period of time.

**Penny:** What are some of the negative effects of DMT that might take place? And maybe as a two-part question, are there consequences, or do you know about any kind of interaction, if people are on other substances, such as alcohol, marijuana, and ecstasy at the same time?

And you might not be able to answer that second part, but hopefully you can at least tell us what maybe some of those negative effects of DMT might be.

**Dr. Strassman:** Well, let's focus on ayahuasca because if it was a brew or drink, that's most likely the form it came in, the DMT came in, and also it would explain the time course too.

Well, when you drink ayahuasca, you can throw up, you can have diarrhea; those are some of the physical effects. You can be [00:15:00] lightheaded, you can faint, but usually you stay alert because of the visions and the stimulation going on. The adverse effects are typical of any other psychedelic; there can be anxiety, it can be fear.

People might get paranoid thinking that people want to hurt them. They can feel like they're losing control of their bodies. The kinds of things which can be turned to benefit can also be converted into unpleasant experiences, like the mood affects extreme moods, let's say. It could be ecstatic, or it could be terror, say you could become quite frightened. When you combine anything with anything else, you're bound to get three effects: one from one drug, one from the other, and a third from the combination. If you're drinking, doing other drugs [00:16:00] any other drugs, stimulants or opiates or other psychedelics or even tobacco, benzodiazepines, tricyclic antidepressants. Yeah. I mean, any of those things can mix poorly with psychedelics. When you start to mix drugs or mix directly with alcohol, you increase your chances of a delirium. You're confused. You don't remember what's going on around you.

You're disoriented, so you can lose chunks of time with a delirium, which is more likely when you mix psychedelics with other drugs. Sometimes they, you know, put, some people will combine with ayahuasca, another plant it's called Datura to make it stronger or last longer. So, if they've still got the ayahuasca, they might want to, you know, look for [00:17:00] Scopolamine and Atropine, the anti-cholinergic compounds, which can increase your risk of a delirium kind of frenzy, forgetful state, or just unconsciousness.

**Penny:** If you were to look for DMT in the body, how long would they be able to look for those drugs, or those metabolites, or those other substances that are part of ayahuasca?

**Dr. Strassman:** Well, if you smoke or inject DMT, it stays in the bloodstream for about a half hour, so the levels in the blood correspond to the acute psychological effect. So, with ayahuasca, it's a similar thing.

You can measure it in blood for as long as there are DMT-like effects going on in your mind, which would be four to six hours or so. You can measure metabolites of DMT, but that's just quite sophisticated.

**Penny:** What do you think now about the usefulness of psychedelics in the therapeutic setting, what is your...

What are your thoughts on [00:18:00] it at this time?

**Dr. Strassman:** Well, the results are extremely positive and across the board, too, for a huge number of conditions, the positive results so far, I think are the result of things that were learned from the first wave of studies with these compounds in humans, in the sixties, which is you need to really pay careful attention to the set and the setting, and the dose. Yeah.

There's striking benefit for depression, for OCD, for tobacco dependence, alcohol dependence, prisoner recidivism, spousal abuse. Yeah. You know, the list goes on... there's new indication every month. Yeah.

The one thing I'm cautious about is to not kind of feel as if we understand how psychedelics work to prove so useful; they prove useful, but they could prove terrible too, like Charles Manson as the case study. So, I [00:19:00] think we can't forget about the person that the drug is working on and the people that he's around, or she's around, which steers the effect in the direction that you're seeking. I think you have to be careful.

You just can't, you know, take a classical psychedelic like LSD, DMT, or psilocybin, and expect a dramatic benefit. You really, you need to do your homework and make certain that the people around you have too.

**Penny:** Just out of curiosity, have you ever heard of a hydrangea ceremony where in South, that's South American or Peruvian ceremony where people shake flowers over a body either to honor their passing into their next life or to bring them back to life? Have you ever heard of anything like that?

**Dr. Strassman:** No, I've not, sounds like one of those things that they've may have, you know, made up on the site or, you know, somebody else may have made [00:20:00] it up and they copied it. You know, in the jungle where you drink ayahuasca with shamans, there's all kinds of rituals.

Yeah, so there are flowers and there's tobacco and there's perfumed water, and there's feathers and all kinds of accoutrements that accompanied the drinking of the ayahuasca, so anything's possible. I've not heard of hydrangeas, but there are other flowers waved over people, but that's for healing.

Yeah, I haven't heard of it used to either revive the dead or honor the passing of the dead. It isn't inconceivable. I mean, you know, people come up with all kinds of things and even more so on psychedelics, but I'm no expert on shamanism. I'm a lab guy, so you have to ask somebody else who knows more about ayahuasca shamanism.

**Penny:** These actions that they took instead of calling 911, we can all agree that that is absolutely wrong, that they should have called [00:21:00] 911, but given that they did not, and they instead engaged in these other behaviors, an examination of that will hopefully allow us to gain some understanding of their state of mind that night.

People come up with all kinds of things when they're on psychedelics. And we know that the tea at the scene tested positive for DMT and Marcus Lillard stated that Clark Heindel was

pouring that tea down Dr. Marianne Shockley's throat. But how exactly does it come to pass that there is DMT at Dr. Clark Heindel's house?

We've already discussed the unique approach that he instituted in his therapy, that he believed in yoga and other philosophical orientations, and Dr. Clark Heindel himself reported going to South America and using ayahuasca in healing in processing the death of his son, [00:22:00] which is, you know, very tragic. He reported that he benefited immensely from participating in these Peruvian ceremonies that are overseen by shamans. Marcus Lillard also told authorities that he had used ayahuasca in the past. We don't know if that was part of a traditional shamanic ceremony or not. So, you have two individuals who have used DMT in the past for a spiritual purpose, a healing purpose, and benefited from it.

In this case, I'll just use Dr. Heindel as an example, where in his past, he had used ayahuasca to help him process the death of his son. If he were confronted with another death, it may be that either consciously or unconsciously, he utilized DMT or ayahuasca in order to process Dr. Shockley's death; regardless of the [00:23:00] circumstances under which that took place and who was responsible, he was still confronted with a death.

And in his past he used ayahuasca to help him heal, help him process that death, and that appears to be one explanation as to why they would use ayahuasca. Now, why they would be giving it to her? There might be some belief, however nontraditional it might be, that if she were given this ayahuasca brew, that it would also produce a healing in her.

I don't know. But again, people do things that defy logic when they are under the influence of a psychedelic, and what might not make sense to anyone outside of that experience, those within it, it actually does comply to their logic and it's based on their past experiences and behaviors.

After my interview with Dr. Strassman, I began thinking about [00:24:00] what that experience may have been like with a shaman and using ayahuasca and began to look at how that might explain the hydrangea ceremony. Shamans use a chakapa or leaf rattle. It is shaken rhythmically, and it is integrated as part of the ceremony. It may be that Clark Heindel, and maybe even Marcus Lillard, had witnessed this in the past and decided to incorporate that into whatever ceremony they were performing that night.

However, the chakapa doesn't fully explain the hydrangea blossoms. There's a movie on Netflix called *The Last Shaman*, and it details the story of a young man who is clinically depressed and suicidal and has tried everything that he can that modern psychology and psychiatry has to offer. And he goes to South America to explore the shaman's [00:25:00] use of ayahuasca in order to help treat his depression.

And in this movie, one of the things that the shamans have him do is take a flower bath as a kind of cleansing purification, rite of passage before he takes the ayahuasca. So that is one potential thought about the flowers. Most interestingly though, is when we learned from Abigail White, she told us about Clark's statements to Marcus, as reported by Marcus Lillard, that Marcus should bury himself. That is actually shown in this movie. The protagonist, who

traveled to South America, they actually put a mesh net over his head, and they bury him in the dirt, and they leave just his nose out.

Just his nose out so he can breathe, and they leave him there for seven hours. [00:26:00] And it is, as Abigail White explained, a way for them to quiet their mind. You have DMT. It's utilized in ayahuasca ceremonies as a spiritual tool, a healing mechanism, and both Marcus Lillard and Dr. Clark Heindel had experience with that in the past.

Dr. Clark Heindel had been to South America, and had participated in ceremonies, led by a shaman, and it could be possible that there was a chakapa there, a leaf rattle that is used to break up negative energy as part of the ceremony. One of the other contributors or explanations for the hydrangea ceremony wherein Dr. Clark Heindel shook the hydrangea branches over and around Dr. Marianne Shockley's body could be that chakapa, [00:27:00] or maybe it was something that incorporated those elements of the movie, *The Last Shaman* of a flower bath, a purification, a preparation for a healing.

We only have Marcus Lillard's report that Clark Heindel told him to bury himself in the woods. We don't know what substances people had in their blood, in their bodies, that was affecting their mind. We don't know what their intention was when they went there that night, whether those drugs were interacting with each other or influencing individuals or what their intentions were—if it was to do harm, or if it was to heal.

Curiously, there's one more explanation, and I will link to the video in the episode notes. On Dr. Marianne Shockley's social media, she posted a link to a video. And in that video, [00:28:00] there is a rather large bumblebee, and it's clearly dead, and there are swarms of ants surrounding the dead bumblebee with delicate pink flower petals, all around the dead bee.

And I don't know if the individuals there that night saw that video on her social media, or if it had any impact whatsoever, or if it's just a very eerie coincidence.

I asked Dr. Strassman one last question, and I want to leave you with that. Anything else that you think people need to know about psychedelics that we didn't talk about?

**Dr. Strassman:** You know, be careful. Know your source, and do your homework, and those around you should do the homework. Yeah, but the main thing is be careful.

**Penny:** That's really good advice for sure. Well, I appreciate you coming on and speaking with us; it was really fascinating, and people should definitely check out your [00:29:00] book, *DMT: The Spirit Molecule*, because there are a lot of great stories and experiences that you share, and it's really lively prose, so I appreciated reading it. It's a really quick read and it's very accessible. I didn't, I wasn't challenged by any of the scientific language at all, so I think that people...it's a really good primer by kind of combining storytelling and science, which I always enjoy. So, thank you for that. Thank you for coming on.

I really appreciate it.

**Dr. Strassman:** My pleasure.