#27 – Psychedelics Without the Psychedelics. What These Ancient Teachers Are Telling Us Transcript

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Introduction: Psychedelics as Teachers

Welcome to the Trip Lab, kitchen table conversations about integrative medicine and psychedelics. I'm your host and attending physician, Dr. Mariella Wood.

Welcome back to another episode of the Trip Lab. Something that I have been thinking about a lot in the psychedelic space is this. We're learning an extraordinary amount not just about psychedelics themselves, but about medicine, the brain, and how humans change. This whole psychedelic research renaissance has been especially interesting to me as an integrative medicine physician because psychedelic medicine is integrative medicine. It sits at the intersection of biology, psychology, environment, meaning, and lived experience.

The very places that modern medicine has far too often tried to separate. And if we really look at these mushrooms, so the most popular psilocybin cubensis strain is called Golden Teacher. And that name is revealing. Across cultures and throughout history, psychedelic plants and fungi were not approached primarily as drugs. They were understood as teachers, as agents of insight, reorganization, and learning. So, what if the lesson was never actually just about the molecule? What if psychedelics are teaching us something more fundamental about the conditions under which the human nervous system becomes capable of change? And we are learning that as we explore more of the neuroscience of psychedelics.

So, today, I want to dive into this a little bit more. What are we learning from psychedelic medicine beyond the consumption of a drug? What wisdom is available right now to people who are curious, cautious, or simply just not ready, or not interested, in using a psychedelic substance? So, we're going to go over that today. We're going to look back at the history and what psychedelic traditions have taught for thousands of years.

We'll explore a little bit more about what modern neuroscience is now revealing about plasticity, context, and meaning. Insights that apply far beyond the psychedelics themselves. And we'll talk about other practices and experiences that can open similar states of insight and reorganization without actively ingesting a psychedelic plant or compound. Because if psychedelic medicine has something important to offer the future of healing, it may not be confined to the drug at all, but to a deeper understanding of how humans heal. So, before psychedelics became the subject of modern clinical trials, they were part of human culture for thousands of years. Across continents and civilizations, psychoactive plants and fungi were used intentionally, ceremonially, and communally.

Not as recreational substances, not as {quote} drugs in the modern sense, but as tools for insight, healing, and connection. We see this very clearly in Mesoamerica, where psilocybin-containing mushrooms were referred to as the flesh of the gods.

Ancient Traditions and Sacred Use

Their use was embedded in ritual and cosmology, not separated from daily life as a substance to be optimized or extracted. In the Amazon, ayahuasca has long been used with structured ceremonial frameworks, guided by experienced practitioners, often for healing, divination, and maintaining coherence within the community. And the medicine was never understood in those spaces as acting alone.

Its effects were actually inseparable from song, ritual, intention, and relationship. In North America, peyote has been used sacramentally for generations, particularly within the Native American Church, as a means of prayer, moral guidance, and communal repair. Again, the impetus was not on the chemical effect, but on the meaning and context in which the experience occurred. Across all of these traditions, a common theme emerges. These substances were not interventions, or what we call {quote} drugs today. They were teachers, sometimes described as messengers, elders, or sacraments.

They were understood to reveal knowledge, not deliver outcomes. One of the more provocative, and definitely very controversial, exploration of this idea comes from John Allegro's book, The Sacred Mushroom and the Cross. So, Allegro was actually not a French mystic. He was a philologist and a member of a team that worked on the Dead Sea Scrolls.

So, he actually was very deeply trained in ancient languages. And in his book, he did propose a very highly unorthodox thesis, that certain early religious symbols, myths, and linguistic roots, particularly in early Christianity, may actually trace back to fertility cults and entheogenic mushroom traditions.

So, specifically, he proposed that biblical language was encoded through metaphor and symbolism related to mushrooms. Also, that certain stories, names, and rituals may have functioned as veiled references to psychoactive sacraments. And that altered states of consciousness may have played a role in early religious experience and communal meaning-making. So, a lot of scholars strongly reject these claims. And Allegro's interpretations of ancient languages were widely disputed. And I will definitely admit that his conclusions are not accepted within mainstream theology or religious history. But, the ideas are pretty interesting.

Not because it proves anything definitely, but because it asked a question that modern Western culture, and I guess I'll say more so religious culture, is very uncomfortable with. What if altered states of consciousness were not peripheral to religion and culture, but actually foundational to them? Even if Allegro's specific conclusions were wrong, the broader possibility that he points to, that early humans used ritualized altered states to access meaning, cohesion, and moral frameworks, is supported by anthropology across cultures. And from an integrated medicine perspective, I think this really matters because it suggests that human beings have long used non-ordinary states not as escapism, but as technologies of insight, social bonding, and existential orientation.

So, when we say that psychedelics were historically understood as teachers, we don't just mean that they taught individuals something private or personal. They actually may have helped shape shared symbols, ethics, and a way of understanding reality itself. So, what if psychedelics are fundamentally teaching us at a higher level?

And I personally think that's exactly what they're doing even in the research studies. Over and over again, published research shows that psychedelic compounds disrupt rigid patterns of perception.

They modulate activity in tightly constrained neural networks, increase communication across previously siloed regions of the brain, and temporarily enhance neuroplasticity, which is the brain's capacity to reorganize itself. And these findings show up consistently across studies with psilocybin, LSD, even MDMA. We see increased psychological flexibility, shifts in self-referential processing, and a greater ability to generate new meaning from experience. What's also becoming increasingly clear is that these neurobiological effects of the actual molecule or psychedelic trip alone do not actually explain long-term therapeutic change. Some of the most important insights from recent psychedelic research have actually little to do with the drug itself and everything to do with set, setting, and integration. We have clinical trials actually that have shown outcomes are strongly influenced by a person's mindset going into the experience, the physical and relational environment in which it occurs, and the support provided afterwards to help make sense of what was experienced. So, numerous studies have shown preparation and integration predict enduring benefit as much as or often more so than the intensity of the acute experience. In fact, participants who report challenging or even distressing experiences can still show significant long-term improvements.

Neuroscience, Set, Setting, and Integration

But, only when those experiences are carefully contextualized and integrated. Without that framework, even profound experiences can fail to translate into healing. So, let's look at some examples here. Johns Hopkins has done some great psilocybin studies for depression, cancer-related distress, and smoking cessation. And in these trials, participants didn't just simply receive a dose of psilocybin.

They underwent multiple preparatory psychotherapy sessions, had the experience in a carefully designed environment with trained guides, and then participated in structured integration afterward. Then, they looked at long-term outcomes, like months and eventually years, and they found that long-term outcomes were strongly

associated not with the drug exposure, but with the meaning participants attributed to the experience.

So, measures like mystical type experience, psychological insight, and personal significance were actually better predictors of sustained benefit than the pharmacologic intensity alone. Similarly, research from the Imperial College of London has shown that psilocybin appears to modulate activity in the brain's default mode network, which is the system involved in self-referential thinking and rumination.

But, the clinical improvements in depression correlated with how participants reinterpreted their experiences afterward, not simply with changes seen on brain imaging. The brain did become more flexible, but it was the narrative reorganization that seemed to matter more. And MDMA-assisted therapy for PTSD is showing the same thing. Its pharmacology is important, but outcomes in the maps trials were inseparable from the therapeutic container. Participants spend far more time in preparation and integration sessions than in the actual dosing sessions.

The drug itself does create a window of safety and openness, but the healing came from what was processed within that window. So taken together, these studies suggest something profound.

Psychedelic substances may act less like treatments that {quote} do something to the brain and more like catalysts conditions under which therapy, insight, and learning can finally take their hold. So I think this emphasis on context may be the most important lesson psychedelic science is offering modern medicine. And all this may seem relatively novel in the research world, but this is not a new idea in the broader psychedelic space.

Long before neuroscience had the language of networks, plasticity, or even predictive processing, indigenous traditions understood that these medicines did not act in isolation. They were always embedded within ceremony, intention, ritual, and community. The experience was shaped as much by the container as by the substance itself.

So what our current modern psychedelic practitioners rediscovered, often from learning from indigenous wisdom, was the idea of set and setting. People on the ground knew long before the data existed that mindset and environment fundamentally shaped the outcome.

So if context, meaning, and integration are doing so much of the therapeutic work, what exactly is the drug teaching us about how humans change? So I just invite you to think about that for a minute. Next I do want to briefly touch on microdosing psychedelics because the findings from this area of research are teaching us a great deal as well. I do have a full episode on microdosing where we go into all of this in more depth if you want to check it out.

But at a high level, most controlled microdosing studies show a consistent result. And that is microdosing does not significantly outperform placebo on measures like mood, creativity, or well-being. And at first glance, it is tempting to interpret this as a failure or to say that microdosing simply does not work. But that interpretation is far too simplistic and in my opinion misses the most important insight. Because when you look closely at these studies, something else stands out. Both the microdosing group and the placebo group improved. So people who believed they were microdosing also had meaningful changes, even if they did not take the actual drug. So I think what this tells us is not that {quote} nothing is happening, but it's that expectation, belief, attention, and narrative can produce therapeutic benefits all on their own, even without an active psychedelic drug in the body. So from a medical perspective, this is profound. It suggests that the brain and nervous system are actually not passive recipients of treatment, but active participants in healing.

When people orient toward change, pay attention to their internal state, and adopt a narrative of growth or experimentation, physiology actually shifts in measurable ways.

Philosophically, this challenges one of medicine's most entrenched assumptions, that healing only occurs when something external is administered. Instead, these findings point toward healing as a process that emerges from meaning-making, context, and engagement. So therapeutically, this actually reframes placebo not as deception, but as capacity. The placebo response becomes evidence that the human system is responsive to intention and expectation, especially when those are supported by structure and ritual. So rather than discrediting microdosing,

these studies are actually revealing something much more important.

That some of the most powerful aspects of psychedelic medicine may not reside in the drug at all, but in the way humans relate to the possibility of change. Huge introduction for what I'm about to talk about next. But as we've seen so clearly, the mind and the body have the capacity to change even without a psychedelic compound. So, what targeted pathways do we have? How do we become active participants in healing instead of just waiting and see whether time, willpower, or luck delivers change? If psychedelics are teachers, then one of their core lessons is this: State matters. Context matters. Attention matters. Meaning matters.

And the good news is, we actually do have non-pharmacologic pathways that can reliably shift state and open windows of learning. Now, these practices don't always create a {quote} full psychedelic state, although intense meditation or certain dream states may blur that line. But they do share overlapping mechanisms, changes in self-referential processing, emotion regulation, memory reconsolidation, and neuroplasticity. So, let's take a look at all these.

First, of course, we have to talk about meditation. So, this is one of the most direct non-drug ways to shift the relationship between attention, self, and sensation. A central finding in psychedelic neuroscience is modulation of the default mode network, which again is the system involved in self-referential thought, rumination, and narrative identity. Interestingly, long-term meditation practice is also associated with changes in the default mode activity.

Microdosing and the Power of Expectation

There are actually a lot of studies that show that experienced meditators have altered activity in default mode regions during meditation compared to controls.

So, the basic idea is that meditation can reduce automatic looping in self-focused narrative processing. So, not by suppressing thoughts, but by changing identification with them. And beyond functional changes, there's evidence of structural brain differences associated with mindfulness and meditation training. We see increased cortical thickness in regions related to attention and interoception, and also gray matter density changes following MBSR programs. So, the overlap with psychedelics isn't, quote unquote, visions. It's something more fundamental, loosening rigid self processing and strengthening the capacity to observe experience rather than be fused with it. So, next I'm going to talk about mindfulness.

This is a word that's been used so widely in wellness culture that its actual meaning is pretty blurry to the public. It's often treated as this vague state of calm or a synonym for meditation, but clinically and neurologically, it is actually something more specific. At its core, mindfulness is the capacity to sustain attention on present moment experience with an attitude of openness, non-judgment, and non-reactivity.

It's not a technique so much as a skill, I would say. And importantly, it actually can be trained in many ways. So, mindfulness meditation is one way to cultivate mindfulness, but it's not the only one.

Meditation is a formal practice, usually time limited, often done sitting or lying down, and designed to train attention. Mindfulness in general, on the other hand, is a mode of awareness that can be applied across daily life. So, during movement, conversation, eating, therapy, and even moments of stress.

So, the therapeutic effects don't simply come from sitting quietly. They come from learning how to notice internal experience without immediately reacting to it, especially in moments that would otherwise trigger avoidance, rumination, or threat responses. From a neuroscience perspective, mindfulness is associated with changes in attentional control networks, interoceptive awareness, and emotion regulation. And in the literature, we see mindfulness training programs strengthen top-down and bottom-up integration, allowing people to experience difficult sensations or emotions without being overwhelmed by them. So, I think this is where the overlap with psychedelic therapy becomes pretty clear.

One of the most consistent outcomes reported in psychedelic-assisted therapy is increased psychological flexibility. So, the ability to stay present with difficult internal material long enough for new learning to occur. And psychedelics

definitely do this to you when you take them.

Mindfulness does train that same capacity, but more gradually and deliberately rather than acutely and whamming you in the face with it.

Non-Drug Pathways to Change

So, while mindfulness doesn't typically induce a psychedelic experience, it cultivates one of the most important conditions psychedelics reveal, the ability to be with experience rather than reflexively escape it. So next, a personal favorite of mine is time in nature and nature therapy.

So, if set and setting really matter, then nature is one of the most biologically supportive {quote} settings that humans can enter. And there actually is good evidence that time in nature reduces rumination and stress physiology, improves mood, and restores attention.

One of the most cited modern studies is by Bratman and colleagues in 2015, showing that a walk in nature, compared to an urban walk, reduced self-reported rumination and decreased activity in brain regions impacted by mood disorders and repetitive negative thinking. Even earlier, there was actually a really fascinating study showing that surgical patients with a view of trees had better recovery outcomes than those facing a brick wall. So, what's the overlap with the psychedelic wisdom here?

It's not that nature equals psychedelics, which you could argue that it does. I think psychedelics are a part of nature. But, it's that nature reliably shifts the nervous system towards safety, awe, and attentional restoration, which are prime conditions for reorganization.

In many people, nature also quiets the narrating self and increases embodied presence. A theme that shows up again and again in psychedelic reports. Okay, next, another personal favorite of mine is dream states. So, I think dreams are one of the most under-appreciated altered states in medicine. From a neuroscience perspective, REM sleep is characterized by vivid imagery, emotional intensity, and unusual associations with decreased executive control compared to waking life. So, that combination can resemble parts of the psychedelic state. We have loosened cognitive constraints, increased emotional material, and novel pattern linking.

Sleep and dreams also play a well-established role in memory consolidation and emotional processing. Matthew Walker's work and decades of sleep research support the idea that sleep is not passive. It's an active neurological integration. So, clinically, dreams matter because they can function as a kind of spontaneous integration process.

The psyche and the nervous system metabolizing emotional material and updating predictions. And there are actually therapeutic applications, too. So, approaches like imagery rehearsal therapy for nightmares, often used in PTSD as well. So, this leverages dream content as a site of learning and reconsolidation. So, even without a drug, the brain already has built-in mechanisms for emotional reprocessing and narrative reorganization. And dreams are just one expression of that. So, ultimately, the mind has endogenous altered states that can support healing. Okay, so all those there were just a few non-drug pathways that can shift state and open plasticity.

But, what about other types of experiences that actually truly feel psychedelic, not just metaphorically? So, So, going to get a little exploratory here. Now, I do want to preface very clearly that this next section is definitely more exploratory.

So, case reports, anthropology, and some emerging neuroscience. So, no large randomized control trials here. So, given that, let's explore. First, we have intensive breathwork practices like holotropic style breathwork and other rapid pattern breathing techniques. So, people often report induced vivid imagery, emotional release, altered time perception, and experiences of ego dissolution. So, from a physiological perspective, these practices can significantly alter carbon dioxide levels, autonomic balance, and blood flow to the brain. We also have EEG studies that suggest changes in cortical inhibition and shifts in limbic system activation, which may allow emotionally charged material to surface.

So, while the neuroscience here is still developing, the phenomenology is strikingly consistent. People often describe experiences that resemble aspects of psychedelic states. So, emotional catharsis and symbolic imagery without ingesting any substances at all. And this, of course, leads us nicely into related practices like chanting and ritual.

So, these practices like chanting, drumming, collective ritual appear across cultures for a reason. Rhythmic sound and repetition can entrain neural oscillations and synchronize group physiology.

Some EEG studies suggest that repetitive rhythmic stimuli can increase data activity, which is a brain wave state associated with trance, imagery, and memory access. Anthropologically, ritualized chanting often occurs in communal, meaning-rich contexts. So, amplifying expectancy, emotional resonance, and social bonding. And people frequently report altered states of awareness, loss of ordinary self-boundaries, and a heightened sense of connection. Here again, it's not just the stimulus, it's the container.

Next, we have prolonged fasting, which has historically been used in religious and spiritual traditions as a means of purification, clarity, or insight.

Physiologically, fasting obviously alters metabolism. It increases ketone production, and actually shifts neurochemical signaling as well. Some emerging studies, we have animal and human actually, suggest that fasting can increase neurotrophic factors and stress resilience. So, I will say this area is is pretty evolving. But, subjectively, people report heightened sensory perception, emotional intensity, altered cognition, and sometimes visionary experiences, particularly when fasting is combined with intention and ritual context. Okay, next one that I think is just fascinating is actually childbirth. So, this is arguably one of the most intense altered states humans can experience. I may be biased here.

Altered States Beyond Psychedelics

So, we have hormonal cascades involving oxytocin, endorphins, and catecholamines that profoundly alter perception, pain processing, and consciousness. So, some people actually describe time distortion, dissociation, euphoria. I did not have that experience, but some people report it, or experiences of transcendence during labor, especially in unmedicated births.

And from a neuroscience perspective, this is a state of extreme vulnerability and physiological surrender, where ordinary cognitive control gives way to embodied processes. This parallels the psychedelic state in so many ways. It is literally a life-changing experience. Women turn into literal portals for life. Maybe I'll actually do a whole episode on this one, because we can go into this one a lot deeper. I think it's truly fascinating. But, moving on here, on the other end of the spectrum, we have near-death experiences or NDEs.

So, these are actually probably one of the most studied non-ordinary states of consciousness. Common reports include a sense of leaving the body, panoramic memory recall, encounters with light or presences, and profound shifts in values afterward. While we don't have a single neurobiological explanation that fully accounts for NDEs, we have hypotheses like altered oxygen and carbon dioxide levels, endogenous neurotransmitter release, and the disruption of normal sensory integration. And of course, any discussion of near death experiences, especially on a psychedelic podcast, would be incomplete with at least mentioning what's often referred to as the DMT hypothesis. So, DMT, or dimethyltryptamine, is a naturally occurring psychedelic compound that actually has been detected in small amounts in mammalian brains. Because high-dose DMT experiences actually share phenomenological similarities with reported near death experiences, including vivid imagery, encounters with perceived beings, time distortion, and a sense of transcendence, some researchers have hypothesized that endogenous DMT release may play a role during extreme physiological stress, including that near death state. So, this is a hypothesis for now. While animal studies have demonstrated DMT presence in the brain, we actually don't have definitive human trials showing that large amounts of DMT are released at death or during near death events. So, the timing, magnitude, and functional relevance of endogenous DMT in humans is still pretty unknown.

That said, the hypothesis is super interesting, not because it explains away near death experiences, but because it suggests that the human brain may have built-in biochemical pathways capable of generating profoundly altered

states under extreme conditions.

And even if DMT turns out to be only part of the story, or just not the primary mechanism at all. The durability of near-death experiences is crazy. Whatever the neurobiology, these states often produce lasting changes in values, fear of death, and sense of meaning. Effects again that mirror some of the most profound outcomes seen in psychedelic-assisted therapy.

So, going back to what I've been saying this whole podcast, the important question isn't simply what chemical might be involved, but what these experiences reveal about the brain's capacity for transformation at the edge of survival. So, we'll take a step back here, and we'll look at the big patterns.

These states often arise at thresholds, moments of transition, intensity, or uncertainty. They involve vulnerability, where usual defenses are lowered, and they require some degree of surrender, where control gives way to experience.

So, these are not optimized states. They are actually liminal ones. And that may be the deeper lesson. Profound psychological and existential change often occurs not when the system is controlled, but when it's temporarily loosened, when meaning can reorganize itself in the presence of safety, support, or context.

So, the psychedelic medicine movement is teaching us a lot, something much larger than a new class of therapeutic agents. It's really holding up a mirror to modern medicine and asking us to truly look. For a long time, modern medicine has been oriented around intervention, around doing something to the body in order to fix it. And that approach has saved countless lives, but it has also trained us to think of healing as something imposed from the outside, rather than something that emerges from within a living system. What psychedelic medicine is showing us is that healing often doesn't happen because we force change.

It happens because the conditions for change finally become available.

Healing, Context, and the Bigger Lesson

Across studies, traditions, and experiences, the pattern is consistent. When safety is present, when rigidity loosens, when meaning can reorganize, and when experience is integrated rather than suppressed, the human system has an extraordinary capacity to heal. The drug, in this sense, is not the healer. It's a catalyst, a teacher, a way of revealing what's possible when the nervous system is allowed to learn again. And once we really see that, the implications extend far beyond psychedelics. They invite medicine, and the world, actually, to re-engage with context, relationship, expectation, and narrative. Not as secondary considerations, but as core clinical variables. They ask us to value presence alongside protocol, and to recognize that healing is not something that we just deliver to people, but something that we can create the conditions for.

So, if medicine can learn that lesson, then in this whole modern medicine timeline, psychedelics may ultimately be remembered not for the substances themselves, but for how they helped medicine remember what healing actually is. Thanks for listening to the Trip Lab. If you liked this episode, please subscribe and share, so we can get the conversation started about integrative medicine and psychedelics, to destigmatize it and fully explore what this could mean in the world.