

BIOHACKERS

MAGAZINE

SPOTLIGHT EDITION

EXCLUSIVE INTERVIEW
WITH GARNET DUPUIS,
CO-FOUNDER OF *LUCID STUDIOS*,
CREATOR OF BRAIN ENGAGEMENT
DEVICE - *NEUROVIZR™*, PROMINENT
SPEAKER, BIOHACKER &
INTEGRATIVE HEALTH EXPERT

**BIOHACKING
THE BRAIN**
**MICRODOSING,
E-PSYCHEDELICS
& THE NEUROVIZR™**

**PSYCHOACTIVE AGENTS:
ENABLING THE HIGHER
ORDER OF EXPERIENCE**

**DRUG-FREE MICRODOSING:
USING LIGHT & SOUND TO
OPTIMIZE THE BRAIN**

**NEUROPLASTIC ADAPTIVITY:
NEUROELASTICITY &
THE JOURNEY TOWARDS JOY**

Also In Our *SPOTLIGHT* Edition:

- *Evolution of Consciousness In the Realm of Music*
- *Healing Trauma & Expanding Consciousness*
- *The Psychedelic Brain*
- **AND MUCH MORE!**

BIOHACKERSMAGAZINE.COM

EXPAND YOUR BRAIN'S POTENTIAL WITH MULTI-SENSORY TECHNOLOGY.



Behind closed eyes, an incredible world awaits.

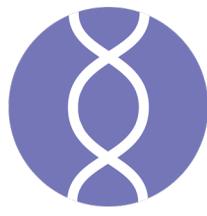
The new VIZR™ device is a multi-sensory light and sound brain enrichment technology that unveils this potential. In just 11 minutes the NeuroVizr™ collection, from the Brain Organizer for personal growth and habit transformation, to the Better Sleep Collection for rejuvenation, to the Brain Gym for enhanced focus and clarity, can elevate your well-being. Experience a blend of light and sound like never before with the Mind States Collection.

Ready to embark on a life-changing journey?

Learn more and pre-order the new VIZR™ device at www.neurovizr.com.



neuroVIZR™
The Change Maker



LIFESPANNING

HELLO@LIFESPANNING.COM
WWW.LIFESPANNING.COM

A NEW MOVEMENT, UNIFYING **SCIENCE** AND **BIOHACKING COMMUNITIES** TO PROMOTE LONGEVITY

Serving as a platform for scientists, researchers, biohackers, and wellness enthusiasts to exchange knowledge, ideas, and experiences, fostering a vibrant ecosystem of innovation and progress.

Lifespanning embodies an inclusive vision that celebrates advancements in science and technology while promoting responsible and informed practices for enhancing human potential.

To initiate this revolution and separate falsehood from authenticity in the field of biohacking, **LIFESPANNING** media has already introduced the **LIFESPAN Certified Program**. This program sets a standard of credibility and authenticity, ensuring that practitioners and products aligned with Lifespanning principles meet stringent criteria. By distinguishing the reliable and trustworthy from misleading and unverified practices, the **LIFESPAN Certified Program** ensures that individuals can embark on their Lifespanning journey with confidence and clarity.

Visit <https://www.lifespanning.com/> to learn more!

BECOME LIFESPAN CERTIFIED.



BIOHACKERS MAGAZINE
INTRODUCES THE **LIFESPAN
CERTIFIED** PROGRAM TO ENSURE
SCIENCE-BACKED BIOHACKING
INNOVATIONS

WE TRY THE BRAND, CHECK
THE SCIENCE AND APPLY YOUR
INVESTMENTS TO CERTIFICATION
AND **GLOBAL ENGAGEMENT**

CERTIFICATION INCLUDES:

- ONE FULL PAGE AD IN EVERY MAGAZINE FOR ONE YEAR
- A DEDICATED SPACE ON OUR WEBSITE FOR YOUR ENTERPRISE
- A SPECIAL MENTION IN EVERY NEWSLETTER FOR ONE YEAR
- AND MORE!

GO TO

WWW.LIFESPANNING.COM
FOR MORE INFORMATION



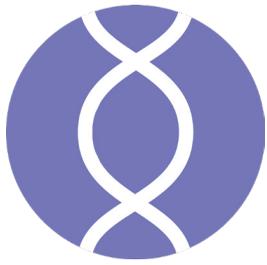


TABLE OF CONTENTS

OCTOBER 2023



MESSAGES FROM OUR BIOHACKING TEAM

A LETTER FROM THE EDITOR & CHIEF INFORMATION OFFICER, DALLAS MCCLAIN 7

A MESSAGE FROM OUR CHIEF OPERATIONS OFFICER, JEAN FALLACARA 8

A MESSAGE FROM OUR MARKETING DIRECTOR, ARJUN CHAUHAN 9



THE PSYCHEDELIC BRAIN 10

IT'S THE LITTLE THINGS THAT COUNT 24

ENTERTAINMENT FOR A CHANGE 34



HEALING TRAUMA & EXPANDING CONSCIOUSNESS: LOVE & PLANTS 43

EVOLUTION OF CONSCIOUSNESS IN THE REALM OF MUSIC 51

A PHILOSOPHICAL JOURNEY TO A NEW AWAKENED-STATE OF CREATIVITY 58



INTERVIEW WITH GARNET DUPUIS, BRAIN ENGAGEMENT EXPERT 66

UNLOCKING HUMAN POTENTIAL: KETAMINE, PSYCHEDELICS,
AND DIGITAL HEALTH TECHNOLOGY 84



MESSAGES FROM OUR BIOHACKING TEAM

A LETTER FROM THE EDITOR

At the core of every human person is the continual force of wonder that drives us to discover more truth about the reality of our world; Curiosity, the desire for knowledge, Philosophy, in a sense - all define the human's endless spirit to discover the world, themselves, and the higher force of creation. It is this innate sense of Wonder that continues to lead humanity into the future of metaphysical comprehension and scientific/technological discovery.

That is why biohacking is an integral part of the community, because it harnesses this endless 'desire to know' that lives inside each of us and leads not just the individual towards better overall health, but also the community as a glorious by-product. Through individual self-discovery and improvement, one becomes more of service to the shared community. That is precisely why technological products designed to optimize one's individual health are of great value to the wellness community, nation, and world. Furthermore, technological devices that focus specifically on the profound nature of the human (Soul & Mind vs. Body & Temporal), are arguably the greatest tools to the human species simply due to their effects on the primal sources of human wonder.

The brain, our supercomputer that houses consciousness as well as unconsciousness, gives us the remarkable ability to reason, to contemplate, to perceive. It is sufficient to say that our brain's health is as important, if not more important than our outward physical health. Mainly because it is the leading determinant of what we do with our bodies. Because of this, it should not be neglected, but rather, should be engaged and optimized as well.

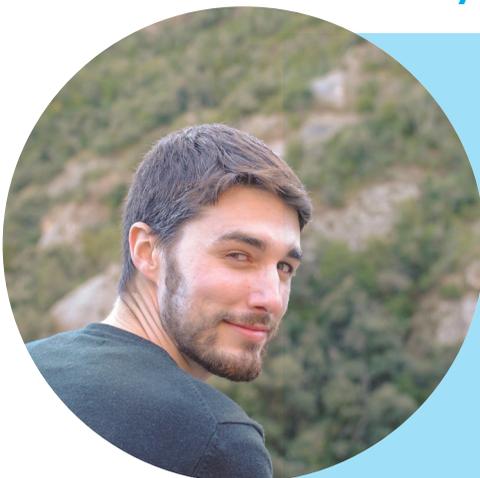
Garnet Dupuis, our close friend and valued contributor, has designed such a tool to help engage the brain in a way that leads to clearer thinking, more reliable perceptions, and better sleep. The NeuroVizr™ is an easy-to-use device that the individual can incorporate into their everyday life to workout their brain. It uses light and sounds to engage the brain's natural pathways to Waking dreams, so to speak, which with continual practice, leads to fewer 'errors' in neural perceptions regarding pattern predictions.

The significance of this cannot be overstated. Being able to think clearly in a world full of endless distractions and patterns is absolutely essential in fueling the individual's efficiency of growth and adaptation to change. As a user of the NeuroVizr™ myself, I can speak truly when I say that it does engage the brain in such a way that it feels similar to a workout, with the added benefit of neuroplasticity and optimal sleep.

At Biohacker's Magazine, we are honored to feature Garnet and the NeuroVizr™ in this edition and hope that all readers will allow their inherent sense of wonder to drive them towards optimizing their brain and overall health, with one of the most impressive brain-engagement tools available; the NeuroVizr™, the change-maker.



About Dallas McClain



Born in the USA, Dallas is a passionate reader of theological and personal development books. He holds a bachelor's degree in Biological Sciences. Teaching English abroad, Dallas has been immersed in various cultures and backgrounds while making friends all over the world. He is a Catholic Christian and enjoys time outdoors while being a tennis enthusiast. He is the Co-founder and Editor of Biohackers Update Magazine. He is currently living in Orlando, Florida with his wife & children, where he enjoys writing, sports, and nature hikes in his free time.

Email: dallas@biohackersmagazine.com

Instagram: [@gates.of.growth](https://www.instagram.com/gates.of.growth)

Website : [gatesofgrowth.com](https://www.gatesofgrowth.com)

BIOHACKERS
MAGAZINE

A MESSAGE FROM CEO JEAN FALLACARA

In an era dominated by screens, algorithms, and the deafening rush of the digital age, it's easy to feel distanced from the innate rhythms of the universe - the primordial dance of light and sound. Yet, these elemental forces, echoing from the dawn of our existence, carry the profound potential to re-shape our moods, rejuvenate our minds, and re-ignite the vibrancy within us. As a fellow traveler on the journey of self-discovery, I introduce you to NeuroVizr™, a tool that encapsulates the magic of light and sound, designed to rekindle that primal connection in our modern lives.

Gone are the days when our forebears arose to the gentle embrace of dawn's first light and the symphony of nature. They existed, seamlessly woven into the fabric of the cosmos. Today, NeuroVizr™ bridges the temporal gap, channeling the essence of those first morning rays and melodies. Let this be your modern compass, guiding you back to your intrinsic rhythm, sans the disruptive buzz of conventional alarms.

Have you felt the energizing allure of a room bathed in just the right shade and intensity of light? Or been stirred by a melody that seems to echo the beat of your very heart? NeuroVizr™ curates these experiences, harnessing them to amplify cognitive prowess, giving wings to creativity and clarity.

As night descends, NeuroVizr™ becomes your guardian of sleep. It bathes you in the tender luminescence of crimson or gold, reminiscent of

nature's nocturnal serenades. Add to this a soundscape that mirrors the tranquil cadence of a babbling brook or the gentle whisper of the wilderness, and you're enveloped in the ultimate cocoon of restorative slumber.

What if the lullabies of the cosmos could crystallize our cherished memories? Research is increasingly spotlighting the potential of nocturnal soundscapes in bolstering memory consolidation. With NeuroVizr™, the past may well find a melodious voice, replaying in the theatre of your dreams.

In a world that often feels like an unending storm, NeuroVizr™ stands as a beacon. The gentle flicker of its lights and the resonance of its sounds offer a sanctuary, a reminder that even in tumult, islands of serenity beckon, awaiting our return.

Life is a beautiful tapestry where threads of light and sound craft tales of healing, aspiration, and equilibrium. With tools like NeuroVizr™, we're not merely passive observers. We become maestros, orchestrating a life imbued with harmony, brilliance, and zest. So, step forth, let's waltz to the rhythm of existence and savor every luminous note.

Embrace the enchantment in each moment. Wield the wonders of the cosmos. For in the magic of NeuroVizr™, we discover that the symphony is not merely around us but resonates deep within our very being.

About Jean Fallacara



Known as Cyborggainz, born in France, Jean is an athlete, entrepreneur, scientist, public speaker and an Art collector. He is the founder and CEO of CyborgMedia, the Managing Director at inTEST Corporation and the CEO of Biohackers Update Magazine. He is also the author of "Neuroscience Calisthenics: Hijack your Body Clock." Jean holds a bachelor's degree in biochemistry, a master's degree in immunology and genetics, and an engineering degree in biotechnology. He has also studied neurosciences and brain functionalities, and law and finances. Jean recently graduated from MIT in XR-VR-MR. He is currently living in between Boston and Montreal after his biotech company was acquired by inTEST Corp (NYSE:INTT) in October 2021.

Website: jeanfallacara.com / Website: cyborggainz.com

A MESSAGE FROM ARJUN CHAUHAN

As we continue to navigate through these challenging times, it is heartening to see how technology has positively impacted our health and well-being. From telemedicine and wearable technology to health apps and virtual fitness classes, technology has enabled us to stay connected and take care of ourselves and our loved ones.

One of the most significant positive impacts of technology on health has been the increased access to healthcare. Telemedicine has made it possible for people to receive medical care from the comfort of their own homes, which is especially important for those who are at high risk or unable to leave their homes.

Wearable technology and health apps have also allowed us to track our biometric data and make lifestyle changes that can improve our overall health. We can now monitor our heart rate, sleep patterns, and physical activity levels, and use this information to make better-informed decisions about our health.

Additionally, technology has made it easier for us to communicate with our healthcare providers and receive timely medical advice

and treatment. With virtual consultations and online portals, we can now access medical advice and treatment from anywhere, at any time.

As we move forward, it is important to continue to embrace the positive impact of technology on health and use it to our advantage. Let us continue to explore new ways to leverage technology to improve our health and well-being, and to support one another through these challenging times.



About Arjun Chauhan



Born in India, Arjun is a master of all trades, the Chief Marketing Officer of Biohackers Update Magazine and a soccer enthusiast. He holds a bachelor's in commerce and a Master's in Business Administration, specializing in marketing and human resources. He has 6 years of experience in content marketing and is always looking forward to gaining more from life. With a passion for nature, he is currently in the foothills of Himalayas, in the northern part of India.

THE PSYCHEDELIC BRAIN



SUMMARY:

Our human brain has the innate natural, normal and even healthy capacity to generate a broad spectrum of conscious states including what is typically referred to as the "psychedelic state."

There is no one single "psychedelic state." The saying that "one cannot step twice into the same river" metaphorically applies to the "psychedelic experience." The powerful influences of "set and setting" act to shape the experience.

The simplistic concept that a psychoactive compound "causes" a psychedelic brain experience is mistaken.

There are numerous bio-chemical, bio-physical and methodological "agents" capable of exciting the brain to manifest psychedelic and mystical states (non-ordinary/altered states).

A psychoactive "agent" has a correspondence with the associated states but is not the direct cause of the state.

INTRODUCTION:

Is the Psychedelic Experience fundamentally created by a psychedelic compound or is it a basic and innate capacity of the brain which is triggered by a compound? Even more, are there other effective non-compound approaches capable of triggering this same innate brain capacity?

In more formal language: (a) What is the causal relationship between the psychedelic drug and brain activity? (b) What is the causal relationship between brain activity and the psychedelic experience? (1)

Let's explore the question and see what answers might emerge.

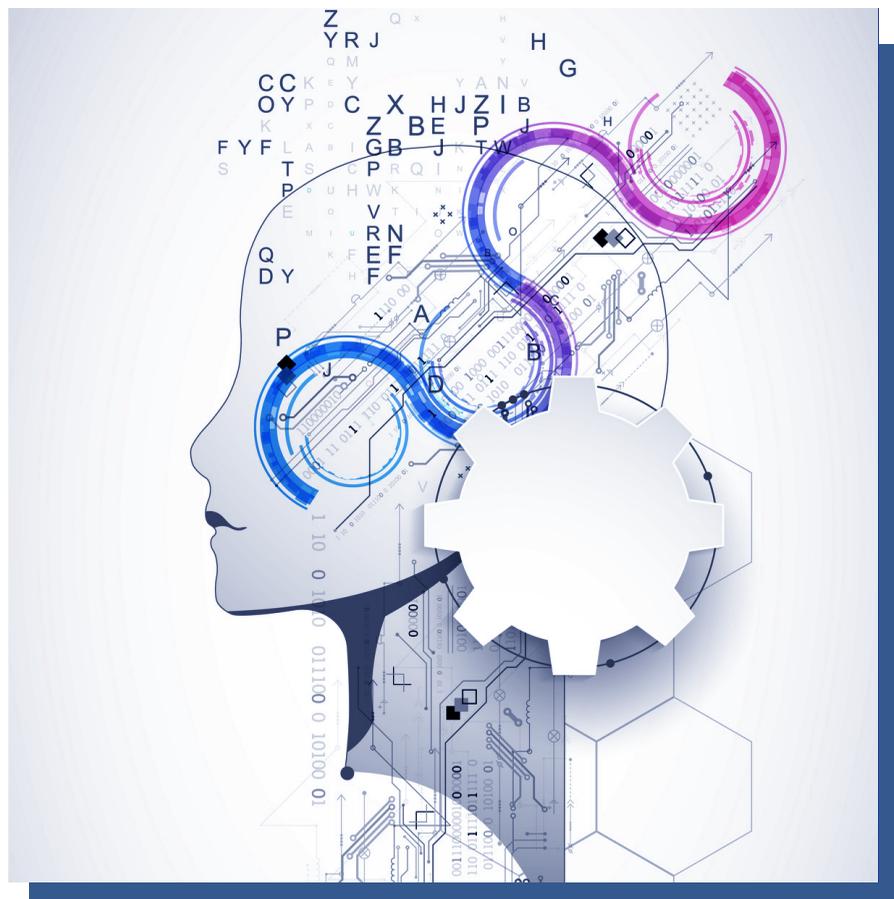
THE TERM "PSYCHEDELIC":

Before we jump too fast, it is necessary to have a closer look at the term "psychedelic" and its meaning in this context. It is important to reflect on the fact that the name of something is just a designation and names can vary over time. So, to better answer the nature of "psychedelic," we must first take a deeper dive into the concept before proceeding further.

The term psychedelic, from the Greek for "mind-manifesting," was coined by Humphry Osmond, a British psychiatrist working in Canada in 1957. "To fathom hell or soar angelic / Just take a pinch of psychedelic," he wrote in a letter to the writer Aldous Huxley.

In our modern times, the various compounds commonly con-

sidered "psychedelic" have been assigned a variety of names. The famous German toxicologist Louis Lewin used the name phantastica earlier in the last century. The most popular alternative names for "psychedelic" have been hallucinogen and psychotomimetic. Aldous Huxley had suggested his own coinage phanerothyme (Greek phaneroein- "visible" and Greek thymos "soul", thus "visible soul") to Osmond in 1956. Most recently, an additional term entheogen has emerged with the "theo/god/divine" spiritual connotation adding a new proposed condition. And perhaps the newest addition to the nomenclature is psychoplastogens—a relatively new class of fast-acting therapeutics, capable of rapidly promoting structural and functional neural plasticity. Psychoplastogenic



compounds include psychedelics, ketamine, and several other recently discovered fast-acting antidepressants. (29) Research in rodents has suggested that, generally, for most psychedelics, the period between 6 and 72 hours post-psychedelic experience is when neuroplasticity is at its highest. However, changes may last for much longer. For instance, LSD has been shown to promote the expression of neuroplasticity-related genes in rodents even one month after treatment had ceased. (30, 31, 32)

The "classical" psychedelics, the psychedelics with the largest scientific and cultural influence, are mescaline (peyote cactus & San Pedro cactus), LSD, psilocybin (mushroom genera *Psilocybe*, *Panaeolus* and *Copelandia*), and DMT. Most psychedelic drugs fall into one of the three families of chemical compounds: tryptamines, phenethylamines, or lysergamides.

From a pharmacological perspective, classic serotonergic psychedelics can be defined with respect to their particular 5-HT_{2A} partial agonism. This includes psilocybin, lysergic acid diethylamide (LSD), mescaline, and N,N-dimethyltryptamine (DMT). This particular 5-HT_{2A} partial agonism distinguishes classic serotonergic psychedelics from cannabinoids, and dissociatives such as ketamine, salvinorin A, and entactogens such as 3,4-methylenedioxymethamphetamine (MDMA), among other substances. (1,2)

It is in the "Psychedelic-assisted therapy" (PAT) and "Psychedelic-assisted-psychotherapy" (PAP) domains that we come again face to face with the generalized use of the term "psychedelic" and the consideration of its meaning. Currently, the three most active forms of PAT/PAP utilize 1) ketamine, 2) MDMA and 3) psilocybin. All three of these

compounds can be correctly described as being "psychoactive" but only one (psilocybin) is categorized as a "psychedelic". Ketamine (as described above) is a "dissociative" and MDMA as an "entactogen." More than just terminology, the distinctions are based on fundamentally different bio-chemical characteristics that do not (apparently) rely on the 5-HT_{2A} partial agonism model.

Then we have the terms that aim for non-technical generalization such as "Altered States of Consciousness" (ASC) as well as "Non-Ordinary Conscious States" (NOCS). These broadly defined terms cross many typical boundaries and are open to a wide range of interpretations. Experiences associated with meditation, hypnosis, and trance are often grouped into these categories. An altered state of consciousness is any mental state in which one's ordinary level of wakeful-



ness, attention, or awareness is temporarily shifted in some way. The term "altered state of consciousness," or ASC for short, was coined by transpersonal psychologist Charles Tart in 1972. Tart defined ASCs as "a temporary change in the overall pattern of subjective experience." (3) The inherent weakness in the designation of an ASC or NOCS is the assumption that our common "waking state" is itself a singular state (ordinary or "normal") when, in fact, our waking state is a very fluid, multi-faceted spectrum of conscious and unconscious psycho-emotional perspectives.

PSYCHEDELIC STATE NOT ONE STATE:

There are several inherent weaknesses in the popular concepts regarding psychedelics which are, in all likelihood, an extension of an even more fundamental misconception of consciousness itself. As stated just above, our "waking" state is not a singular "normal" state but rather a dynamic and ever-changing compound of various qualities and types of consciousness.

Taking this "waking" state bias as a starting point, it is easy to cast the same incorrect assumption onto the "psychedelic" state. Research recognizes, as does anyone who has had personal psychedelic experiences, that even the same compound can result in very different aspects and types of experience. If one expands this truth to include any of the many "psychoactive" compounds that are often loosely categorized as "psychedelic," it is clearly evident that the "psyche-

delic" state along with any other "non-ordinary" or "altered" state, such as "dreaming" and "hypnagogic" all have a wide range of different characteristics. In fact, the only thing they may have in common is that our human brain is capable of shifting and dynamically accommodating itself to this huge variance of expressions in a reliably efficient way. Our brain and its inherent capacity for mediating change appears to be the only constant. These varied states are all possible because they are also within the normal and natural functional capacity of our human brain.

THE PSYCHOACTIVE PRINCIPLE:

All "psychedelics" are "psychoactive" agents but not all "psychoactive" agents are "psychedelic." It may be far more accurate (hence less confusing) to use the compound term "serotonergic psychedelics" in discussions about consciousness and the brain. Other known "psychoactive agents" are making an impact at popular and professional levels.

Empathogens & Entactogens increase a person's feeling of empathy and benevolence towards others, as well as feelings of being socially accepted and connected. They can increase friendliness and playfulness, but can also cause mood swings, dehydration and depression. Empathogens are sometimes referred to as entactogens. This class of drug is distinguished from the classes of hallucinogen or psychedelic, and amphetamine or stimulants. Major members of this class





include MDMA, MDA, MDEA, MDOH, MBDB, 5-APB, 5-MAPB, 6-APB, 6-MAPB, methylone, mephedrone, GHB, aMT, and aET, MDAI among others. (23)

Deliriant is a class of hallucinogen. The term was coined in the early 1980s to distinguish these drugs from psychedelics and dissociatives such as LSD and ketamine, due to their primary effect of causing delirium, as opposed to the more lucid and less disturbed states produced by other types of hallucinogens. Deliriant is present in different classes of drugs as well. For example, anticholinergics include scopolamine and atropine, while antihistamines include doxylamine, cyclizine, and chlorpheniramine. (22)

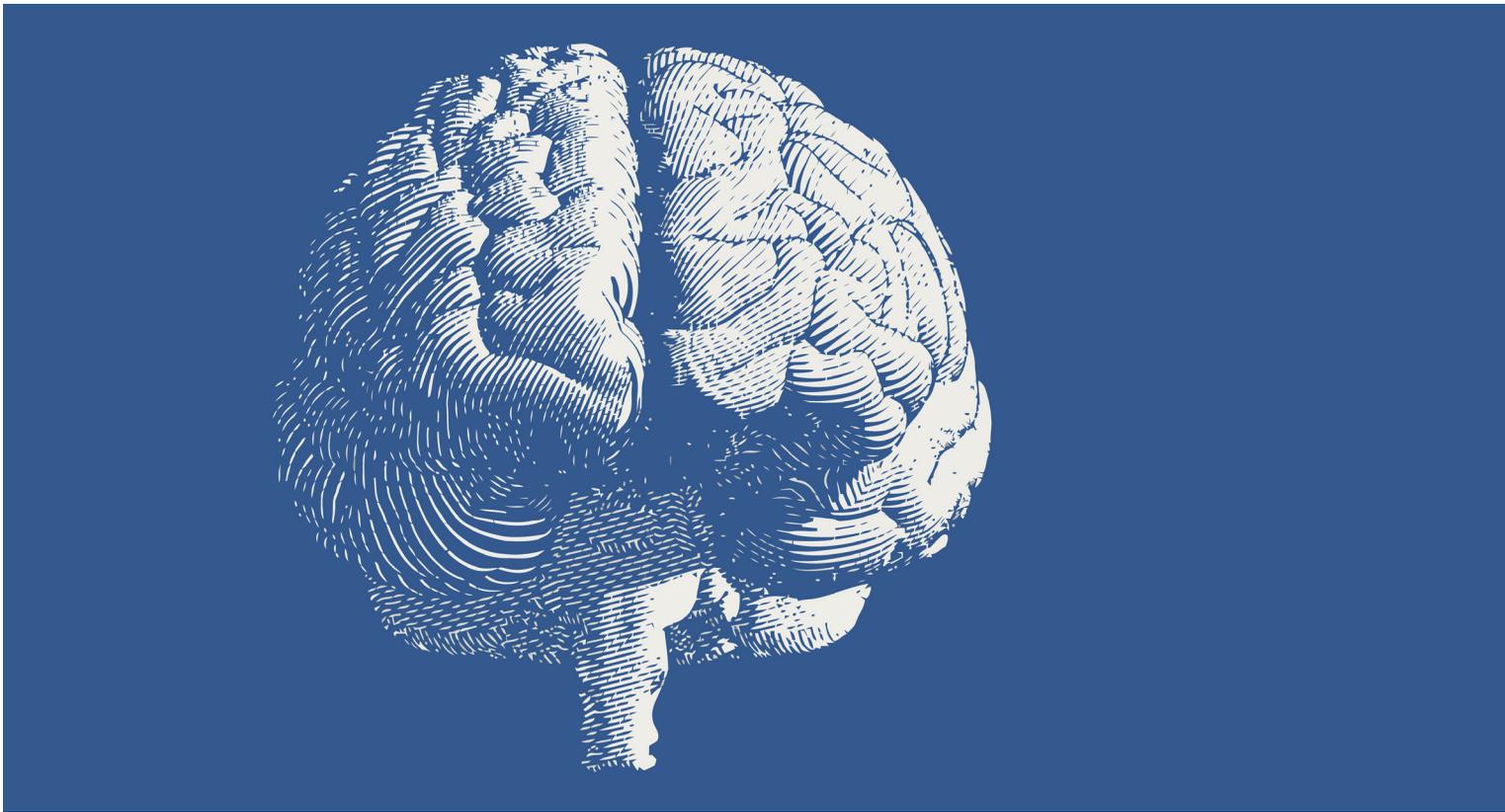
Dissociatives are a subclass of hallucinogens which distort perception of sight and sound and produce feelings of detachment – dissociation – from the environment and/or self. Although many kinds of drugs are capable of such action, dissociatives are unique in that they do so in such a way that they produce hallucinogenic effects, which may include dissociation, a general decrease in sensory experience, hallucinations, dream-like states, or anesthesia. The most significant subjective differences between dissociatives and the classical serotonergic psychedelics (such as LSD and mescaline) are the detaching effects, including: depersonalization, the feeling of being unreal, disconnected from one's self, or unable to control one's actions; and derealization, the feeling that the outside world is unreal or that one is dreaming. Some dissocia-

tive drugs are used recreationally. Ketamine and nitrous oxide are club drugs. Phencyclidine (PCP or angel dust) is available as a street drug. Dextromethorphan-based cough syrups (often labeled DXM) are taken by some users in higher than medically recommended levels for their dissociative effects. (21)

IS MEDITATION “PSYCHOACTIVE”?

The term “psychoactive” is typically defined as “a drug or other substance that affects how the brain works and causes changes in mood, awareness, thoughts, feelings, or behavior.” If the “drug or other substance” element is modified as “an agent that affects the brain,” then clearly meditation (and other related “yogic and contemplative” methods) finds itself in the “psychoactive” category.

“In recent years, the scientific study of meditation and psychedelic drugs has seen remarkable developments. The increased focus on meditation in cognitive neuroscience has led to a cross-cultural classification of standard meditation styles validated by functional and structural neuroanatomical data. Meanwhile, the renaissance of psychedelic research has shed light on the neurophysiology of altered states of consciousness induced by classical psychedelics, such as psilocybin and LSD, whose effects are mainly mediated by agonism of serotonin receptors. In particular, many contemplative traditions explicitly aim at dissolving the sense of self by eliciting altered states of consciousness through meditation, while clas-



sical psychedelics are known to produce significant disruptions of self-consciousness, a phenomenon known as drug-induced ego dissolution." (24)

PSYCHOACTIVITY BEYOND MEDITATION:

The following is a short and incomplete list of examples of circumstances "that affects how the brain works and causes changes in mood, awareness, thoughts, feelings, or behavior" and therefore be "psychoactive" in nature:

Long periods of darkness are well known to induce altered states as well as phosphenes and entopic/entoptic internal visualized light experiences (e.g. the "prisoner's cinema" of dungeons).

Regular long winter nights, especially spent in deep dark caves, would certainly be sufficient to provoke altered states and phosphenic visual experiences.

Sustained physical stresses and labors are known to induce altered states.

Long migration treks or hunting expeditions or "vision quests" can induce altered states.

Physical injuries, pathologies and diseases are well known to be potential causes of hallucinations.

Social group drumming, dancing and singing could induce trance and uncommon or altered states of consciousness.

Serious sustained hunger and starvation can induce hallucinations.

IS CONSCIOUSNESS A COLLECTION OF SEPARATE STATES?

As a whole, when considering our mind and consciousness, there has been a strong tendency to categorize consciousness into discrete and separate "boxes." In a reductionistic philosophy, this is expected although perhaps not accurate. Even the terms "altered

states" and "non-ordinary states" rely on implied "normal" (aka "un-altered") and "ordinary" (aka "not non-ordinary") states.

Advancing studies in human consciousness are proposing various new models that dissolve many of the reductionistic "box-like" views of the range of human "brain/mind states." Reductionistic perspectives idealize "local states" that are objectified more discretely and almost reified as "things." More wholistic functional perspectives see more fluid "verb-like" processes that flow up and down into "levels" of a unitary "global state." The "global state" has a gestalt approach that also considers "multidimensionality" with fuzzy overlapping qualities. Such fluid "global states" can be considered "consciousness states" with varied degrees of "richness" and not distinctly separated by definite boundaries. (25)

DMT-based brain studies illus-

trate the “gradient” quality of “global state” variations in consciousness. Secondary Consciousness (see Entropic Brain in this article) acts to suppress the rich entropic qualities that are characteristic of Primary Consciousness and sustain a dictated tendency in behaviors which is critical for fast acting responses based on habituation. In our human brain, we have a strong regulating aspect that influences the dictating aspects of Secondary Consciousness known by the acronym TOP (Transmodal association cortex pole). Higher-order TOP processes limit the communication between neurologically lower-order sensorimotor modules. Primary Consciousness states such as those induced by the “agent” DMT, create a flowing communication between the human cortex’s principal functional gradient spanning from lower sensorimotor cortex pole to a higher order TOP domain. (28)

DIFFERENT PERSPECTIVES:

The concept of a “Psychedelic Brain” is, not surprisingly, studied from different points of view depending on the scientific specialty and the field of application.

The pharmaceutical industry approaches the investigation from a pharmacological angle with an interest in the therapeutic mechanism of psychedelics on a biochemical level. (4)

Neuroscientific research seeks out the neurobiological mechanisms considered to be involved in psychedelic therapeutic experiences. (4)

The medical and therapeutic in-



terests are focusing on the psychological research related to the subjective features of psychedelic experiences that predict therapeutic success. (5)

Adjunctive to these varied views are the attempts to create new therapeutic interventions using “psychedelics.” “Psychedelic-assisted therapy” (PAT) and “Psychedelic-assisted-psychotherapy” (PAP) are at the leading edge of conceptualizing the core brain-based dynamics involved in the impressive mind-based improvements in subjects. A shift away

from “drug efficacy” assessments towards “experiential efficacy” assessment models is evidence that perspectives regarding innate brain dynamics and subjective experiences are playing a significant role in therapeutic outcomes. (6) One dominating factor is the consistently emergent observation that the positive and lasting effects of PAT/PAP sessions are strongly linked to whether the subject encounters a “mystical experiential state.” (8) This “mystical” experience can be summarized essentially as

“ego-dissolution.” Hence, we see the emergence of interests in a shift towards “experiential efficacy” as an indicator of higher probabilities of long-term positive benefits from the process.

“This underscores that the quality of subjective experience predicts positive mental health outcomes and may account for the majority of the lasting beneficial effects of psychedelics. These findings on the psychological and experiential level importantly suggest a potential causal role of the subjective experience on the therapeutic effects of psychedelics.” (1, 16, 17)

Various psychedelic studies, especially those with psilocybin, have repeatedly shown that subjects frequently rate their psychedelic experiences as among the most meaningful in their lives. (13, 14, 15) Because reports of a “mystical experience” are purely subjective, often difficult if not impossible to describe (ineffable) and not indicated by any technical metric, studies rely upon a variety of well-constructed questionnaires such as:

- Mystical Experience Questionnaire (MEQ) (9)
- Mysticism Scale (10)
- Subscales of the 5-Dimension Altered States of Consciousness questionnaire. (11)

For example, the MEQ comprises four subscales:

- (1) a sense of unity or connectedness,
- (2) positive feelings such as love or peace.
- (3) alterations to the sense of time and space, and
- (4) ineffability, i.e., difficulty with articulating the experience with words. (12)

CURRENT PSYCHEDELIC THEORIES:

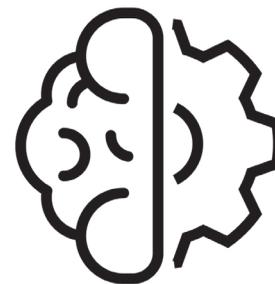
There are two dominant general theories operating at this time at an advanced level of research: 1) The Integration view and 2) the Pluralistic view.

The first view, the integration view, concludes that the different levels converge on a similar linear causal cascade: The psychedelic molecule creates a) changes in brain activity and b) the brain creates the psychedelic experience. (1) This simplistic model depends on a “two-step” process one could describe as an “agent/action” process. This one-two formula opens up the consideration that there may be a variety of “agents” that are considerably effective in triggering the second-stage “action” of the “psychedelic experience” which in the model would be an innate capacity of the brain itself. The REBUS model is an excellent example of the Integration view.

The second view, the pluralistic view, however, holds that psychedelic experiences cannot be reduced to a single causal pathway and argues instead for the interplay of multiple causal pathways. (1) This second view does not exclude the first view (above, the Integration view) but rather expands it to consider that there are likely to be other influential pathways of “agency” that contribute to the resultant end point “action” of the “psychedelic experience.”

PRIMER ON R.E.B.U.S. & THE INTEGRATION VIEW:

The simplicity and relatively popular acceptance of the REBUS aspect of the Integration



model makes for a satisfying approach to the investigation of the Psychedelic Brain. Not surprisingly, the REBUS model is not without its critics, which is typical in the scientific process, but this doesn't diminish its practical ability to shed light on a complex and sometimes dramatic subjective state.

The REBUS Model is a synthesis of the entropic brain model and the free-energy principle. (7) REBUS is an acronym: 'Relaxed Existing Beliefs Under Psychedelics'.

We call this formulation relaxed beliefs under psychedelics (REBUS) and the anarchic brain, founded on the principle that—via their entropic effect on spontaneous cortical activity—psychedelics work to relax the precision of high-level priors or beliefs, thereby liberating bottom-up information flow, particularly via intrinsic sources such as the limbic system. (7)

The Entropic Brain Model: "Entropy is a dimensionless quantity that is used for measuring uncertainty about the state of a system but it can also imply physical qualities, where high entropy is synonymous with high disorder. Entropy is applied here in the context of states of consciousness and their associated neurodynamics, with a particular focus on the psychedelic state.

The psychedelic state is considered an exemplar of a primitive or primary state of consciousness that preceded the development of modern, adult, human, normal waking consciousness. Based on neuroimaging data with psilocybin, a classic psychedelic drug, it is argued that the defining feature

of "primary states" is elevated entropy in certain aspects of brain function, such as the repertoire of functional connectivity motifs that form and fragment across time. Indeed, since there is a greater repertoire of connectivity motifs in the psychedelic state than in normal waking consciousness, this implies that primary states may exhibit "criticality," i.e., the property of being poised at a "critical" point in a transition zone between order and disorder where certain phenomena such as power-law scaling appear.

Moreover, if primary states are critical, then this suggests that entropy is suppressed in normal waking consciousness, meaning that the brain operates just below criticality. It is argued that this entropy suppression furnishes normal waking consciousness with a constrained quality and associated metacognitive functions, including reality-testing and self-awareness. It is also proposed that entry into primary states depends on a collapse of the normally highly organized activity within the default-mode network (DMN) and a decoupling between the DMN and the medial temporal lobes (which are normally significantly coupled).

These hypotheses can be tested by examining brain activity and associated cognition in other candidate primary states such as rapid eye movement (REM) sleep and early psychosis and comparing these with non-primary states such as normal waking consciousness and the anaesthetized state". (18)

It is of interest that the concept of a Primary Consciousness and





Secondary Consciousness as utilized by the Entropic Brain model has a precedent in the landmark work of Freud. Freud proposed the “id” as Primary and “ego” as Secondary in the psyche of the human mind. “Freud is perhaps most well-known for his concepts of the “ego” and the “id” as competing processes within an individual: the id is the primary process that represents the “primitive” aspects of a person, driven by instinctual desires and tendencies; the ego is the secondary process that uses reason to negotiate these desires, representing the part of the individual that has been shaped by culture.” (25)

The Free Energy Principle: “A free-energy principle has been proposed recently that accounts for action, perception and learning. There are key brain theories in the biological (for example, neural Darwinism) and physical (for example, information theory and optimal control theory) sciences that can be viewed from the free-energy perspective. Crucially, one key theme runs through each of these theories — optimization. Furthermore, if we look closely at what is optimized, the same quantity keeps emerging, namely value (expected reward, expected utility) or its complement, surprise (prediction error, expected cost). This is the quantity that is optimized under the free-energy principle, which suggests that several global brain theories might be unified within a free-energy framework.” (19)

The term “Anarchic Brain” as related to REBUS refers to the view that the brain is naturally capable

of temporarily relinquishing the more common controlling activities most associated with “top-down” “neurological integration” and entering into an unformed, rich “informational” state most associated with “bottom up” neurological processes. Here the term “anarchy” is used as in a state of disorder due to absence or nonrecognition of authority or other controlling systems.

MORE ABOUT R.E.B.U.S.:

Following the Entropic Brain Model (see above), our conventional waking state is an expression of the newer brain and its Secondary Consciousness. This is the domain of order, integration and prediction. Psychedelic (Non-Ordinary/Altered) states are an expression of the older brain and its Primary Consciousness. This is the domain of disorder, information and novelty.

A little bit more about the “entropy” aspect -at first, describing “entropy” as “disorder” or even “chaos” sounds like a bad thing when associated with our brain. Although, certain pathologies such as schizophrenia can be understood as related to “disordered” neurological states, there is quite a bright side to our brain’s ability to slide up and down the entropy scale of neuro-functionality.

It is also accurate to consider “entropy” as yielding more new possibilities, novel information and creative problem solving. Lower entropic states are highly structured which permits reliable repetition. However, these lower entropic states are also more rigid and dictatorial. High-

er entropic states permit “variance” which means all sorts of alternative communications and connections are permitted which can lead to discovery and broad choices in solution processes.

“A study found positive correlations between brain entropy and divergent thinking in healthy individuals, in areas including the left dorsal anterior cingulate cortex, the pre-supplementary motor area, and the left dorsolateral prefrontal cortex. If we interpret entropy as a measure of how many distinct states a system can take, then these findings make intuitive sense—people who are more “intelligent” or “creative” are likely able to inhabit a wider variety of system (or brain) states.” (26, 27)

There is no absolute boundary between these two qualities of the brain but rather a continuum or spectrum with higher and lower degrees of “criticality”. Technically, Criticality is the singular state of complex systems poised at the brink of a phase transition between order and randomness. Such systems display remarkable information-processing capabilities, evoking the compelling hypothesis that the brain may itself be critical. (20)

In this perspective, it is fundamentally clear that both states are normal, natural and are required for the ongoing functional adaptive demands that everyday life presents as challenges for our brain. Primary Consciousness is the source of novel information and creative modification while existing purely in the present moment of experience. Secondary Consciousness is the source of ordered integration and predict-



able habits and behaviors while existing in a virtual world composed of the library of the past and a projected future.

REBUS – ‘RELaxed Beliefs Under psychedelics’, proposes that various psychoactive compounds move the degree of criticality away from the ordered domain of Secondary Consciousness and towards the more uncertain domain of Primary Consciousness. With volumes of newly liberated interrelationships, the habitual “glue” of reinforced “beliefs” (aka patterns, behaviors, habits) is “relaxed” so that new information can then modify and reshape the previous structures towards an

evolving positive adaptation and new learning.

Returning here to the question posed in the Introduction (see above), a) What is the causal relationship between the psychedelic drug and brain activity? (b) What is the causal relationship between brain activity and the psychedelic experience?

We have three elements in the questions: #1 psychedelic drug, #2 brain activity, #3 psychedelic experience.

A popular impression is that:
#1 psychedelic drug = #3 psychedelic experience

Based on the general discussion above, if Primary Consciousness





as represented here as the “psychedelic experience” is in fact a natural and innate functional domain of the healthy brain, it would appear to be much more likely that:

#2 brain activity = #3 psychedelic experience.

The #1 psychedelic drug acts as an “agent” that “activates” the critical dynamic of the brain so as to create an “action” awakening the #3 psychedelic capacity of the brain as conscious experience.

This allows us to reframe the formula as:

#1 agent > #2 activation > #3 action

As such, the #1 “agent” is not causal in creating the #3 psychedelic experience. The #1 “agent”, in some manner, produces #2 “activation” of the innate shift in criticality that opens the door into the natural #3 “actions” of Primary Consciousness.

CONCLUSION:

Research into the Psychedelic Brain is rapidly evolving and consequently, our views and attitudes regarding our human brain and its relationship to “psychedelics” must also keep pace and evolve accordingly. We can see that our brain has a vast range of experiential states with consciousness itself remaining a highly debated mystery with strong polarizing positions and beliefs.

The assumption and conclusion here in this paper is that our human brain has a natural and normal, even healthy, broad spectrum of experiential functional states. The interpretation of this spectrum is tightly related to cultural philos-

ophies. The tendency of our reductionistic and materialistic perspectives is to view a separation of consciousness states in “box-like” individual entities. This approach is highly conducive to simplistic causal explanations and in the case of the psychedelic experience, would assume that a psychoactive/psychedelic compound would be the “cause” of a psychedelic experience.

The position of this paper is

that our human brain has an innate natural, normal and healthy capacity to shift into information-rich states and that shift can be excited by an equally broad spectrum of “agents” for an end point “psychedelic action”.

References:

1. Not in the drug, not in the brain: Causality in psychedelic experiences from an enactive perspective; Daniel Meling, Milan Scheidegger;



- Front. Psychol., 03 April 2023; Sec. Consciousness Research; Volume 14 - 2023 <https://doi.org/10.3389/fpsyg.2023.1100058>
2. Nichols, D. E. (2016). Psychedelics. *Pharmacol. Rev.* 68, 264–355. doi: 10.1124/pr.115.011478
 3. Altered States of Consciousness: 4 Non-Psychedelic Approaches, Liz Zhou, <https://thethirdwave.co/altered-states-of-consciousness/>
 4. Vollenweider, F. X., and Preller, K. H. (2020). Psychedelic drugs: neurobiology and potential for treatment of psychiatric disorders. *Nat. Rev. Neurosci.* 21, 611–624. doi: 10.1038/s41583-020-0367-2
 5. Yaden, D. B., and Griffiths, R. R. (2021). The subjective effects of psychedelics are necessary for their enduring therapeutic effects. *ACS Pharmacol. Transl. Sci.* 4, 568–572. doi: 10.1021/acspsci.0c00194
 6. Quality of Acute Psychedelic Experience Predicts Therapeutic Efficacy of Psilocybin for Treatment-Resistant Depression; Leor Roseman, David J. Nutt and Robin L. Carhart-Harris; *Front. Pharmacol.*, 17 January 2018; Sec. Neuropharmacology; Volume 8 - 2017 | <https://doi.org/10.3389/fphar.2017.00974>
 7. Carhart-Harris, R. L., and Friston, K. J. (2019). REBUS and the anarchic brain: toward a unified model of the brain action of psychedelics. *Pharmacol. Rev.* 71, 316–344. doi: 10.1124/pr.118.017160
 8. Garcia-Romeu, A., Griffiths, R. R., and Johnson, M. (2015). Psilocybin-occasioned mystical experiences in the treatment of tobacco addiction. *Curr. Drug Abuse Rev.* 7, 157–164. doi: 10.2174/1874473708666150107121331
 9. Pahnke, W. N. (1969). Psychedelic drugs and mystical experience. *Int. Psychiatry Clin.* 5, 149–162.
 10. Hood, R. W. Jr., Ghorbani, N., Watson, P. J., Ghramaleki, A. F., Bing, M. N., Davison, H. K., et al. (2001). Dimensions of the mysticism scale: confirming the threefactor structure in the United States and Iran. *J. Sci. Study Relig.* 40, 691–705. doi: 10.1111/0021-8294.00085
 11. Dittrich, A. (1998). The standardized psychometric assessment of altered states of consciousness (ASCs) in humans. *Pharmacopsychiatry* 31, 80–84. doi: 10.1055/s-2007-979351
 12. Barrett, F. S., Johnson, M. W., and Griffiths, R. R. (2015). Validation of the revised mystical experience questionnaire in experimental sessions with psilocybin. *J. Psychopharmacol.* 29, 1182–1190. doi: 10.1177/0269881115609019
 13. Griffiths, R. R., Johnson, M. W., Richards, W. A., Richards, B. D., Jesse, R., MacLean, K. A., et al. (2018). Psilocybin-occasioned mystical-type experience in combination with meditation and other spiritual practices produces enduring positive changes in psychological functioning and in trait measures of prosocial attitudes and behaviors. *J. Psychopharmacol.* 32, 49–69. doi: 10.1177/0269881117731279
 14. Griffiths, R. R., Johnson, M. W., Richards, W. A., Richards, B. D., McCann, U., and Jesse, R. (2011). Psilocybin occasioned mystical-type experiences: immediate and persisting dose-related effects. *Psychopharmacology* 218, 649–665. doi: 10.1007/s00213-011-2358-5
 15. Griffiths, R. R., Richards, W., Johnson, M., McCann, U., and Jesse, R. (2008). Mystical-type experiences occasioned by psilocybin mediate the attribution of personal meaning and spiritual significance 14 months later. *J. Psychopharmacol.* 22, 621–632. doi: 10.1177/0269881108094300
 16. Roseman, L., Nutt, D. J., and Carhart-Harris, R. L. (2018). Quality of acute psychedelic experience predicts therapeutic efficacy of psilocybin for treatment-resistant depression. *Front. Pharmacol.* 8:974. doi: 10.3389/fphar.2017.00974
 17. Jungaberle, H., Thal, S., Zech, A., Rougemont-Bücking, A., von Heyden, M., Aicher, H., et al. (2018). Positive psychology in the investigation of psychedelics and entactogens: a critical review. *Neuropharmacology* 142, 179–199. doi: 10.1016/j.neuropharm.2018.06.034
 18. The entropic brain: a theory of conscious states informed by neuroimaging research with psychedelic drugs, Robin L. Carhart-Harris, Robert Leech, Peter J. Hellyer, Murray Shanahan, Amanda Feilding, Enzo Tagliacucchi, Dante R. Chialvo and David Nutt, *Front. Hum. Neurosci.*, 03 February 2014 <https://doi.org/10.3389/fnhum.2014.00020>
 19. The free-energy principle: a unified brain theory? Karl Friston, *Nature Reviews Neuroscience* volume 11, pages127–138 (2010), Published: 13 January 2010
 20. Jordan O’Byrne, Karim Jerbi, How critical is brain criticality? *Trends in Neuroscience*, Volume 45, Issue 11, November 2022, Pages 820-837
 21. <https://www.keyopinion-leaders.com/dissociative-conversion-disorders-KOL>
 22. <https://en.wikipedia.org/wiki/Deliriant>
 23. <https://adf.org.au/drug-facts/empathogens>
 24. Raphaël Millière, Robin L. Carhart-Harris, Leor Roseman, Fynn-Mathis Trautwein and Aviva Berkovich-Ohana, *Psychedelics, Meditation, and Self-Consciousness*, *Front. Psychol.*, 04 September 2018. Sec. Theoretical and Philosophical Psychology, Volume 9 - 2018
 25. Psychedelics, entropic brain theory, and the taxonomy of conscious states: a summary of debates and perspectives Sidath Rankaduwa, Adrian M. Owen, *Neuroscience of Consciousness*, 2023, 2023(1), 1-3
 26. Shi L, Beaty RE, Chen Q et al. Brain entropy is associated with divergent thinking. *Cereb Cortex* 2020; 30:708-17
 27. Saxe GN, Calderone D, Morales LJ. Brain entropy and human intelligence: a resting-state fMRI study. *PLoS One* 2018;13: e0191582.
 28. Human brain effects of DMT assessed via EEG-fMRI Christopher Timmermana, PNAS, Leor Rosemana, Sharad Haridasa, Fernando E. Rosasa,b,c,d, Lisa Luana, Hannes Kettnera, Jonny Martella, David Erritzoea, Enzo Tagliacucchie,f, Carla Palavicinif, Manesh Girng, Andrea Alamiiah, Robert Leechi, David J. Nutta, and Robin L. Carhart-Harrisa,j Edited by Marcus Raichle, Washington University in St Louis School of Medicine, St. Louis, MO; received November 12, 2022
 29. Psychoplastogens: A Promising Class of Plasticity-Promoting Neurotherapeutics, David E Olson, *Journal of Experimental Neuroscience* Volume 12: 1–4
 30. Towards an understanding of psychedelic-induced neuroplasticity, Abigail E. Calder & Gregor Hasler, *Neuropsychopharmacology* volume 48, pages104–112 (2023)
 31. Chronic LSD alters gene expression profiles in the mPFC relevant to schizophrenia, David A. Martin, Danuta Marona-Lewicka, David E. Nichols, Charles D. Nichols, *Neuropharmacology*, Volume 83, August 2014, Pages 1-8
 32. The Psychedelic Mind: How Neuroscience Can Help You Navigate Your Inner Landscape, Melanie Pincus, Ph.D. & Manesh Girn, *Psychedelictimes.com*

About Garnet Dupuis



Garnet was born and raised in Canada and is a naturalized USA citizen. He is an Integrative Health and Wellness expert, teacher & inventor with specialties in inter-disciplinary methodologies. With a wide experience in advanced technologies, Garnet has taught neuromodulation applications in major USA universities, professional sports teams, the Marine Corp and Naval Hospitals and lectured in European and Asian countries.

Garnet has a broad education including college, university and graduate trainings in Classical and Clinical Homeopathy, Oriental Medicine, Massage Therapy/Bodywork, Hydrotherapy, Remedial Exercise, Biofeedback, Psychology and English Literature.

Garnet is co-founder of Lucid Studios/NeuroVizr™, Thailand. He currently resides in the tropical mountain rainforest in Northern Thailand. He is a life-long meditator and practitioner of Tibetan Dzogchen. Garnet is active in wild animal rescue and conservation and has built, manages and funds a sanctuary for SE Asian apes.

Website: <https://NeuroVizr.com/>



IT'S THE LITTLE THINGS THAT COUNT:

A DEEP & EVOLVING DIVE
INTO MICRODOSING

Introduction:

In culture, there are trends and there are fads. Trends are waves of social evolution and change that grow and swell into communities. They often have lasting cultural impact. Fads are splashes that dramatically crash onto shore and quickly disappear into the mist.

Is "microdosing" a trend or a fad?

There is evidence that "microdosing" is a trend. Let's have a look and see if you agree.

Current Concept:

This is the description from the Microdosing Institute (<https://microdosinginstitute.com/>). It reflects the most common understanding and attitude among the active psychedelic community as well as, at least in part, what most persons in the general population may understand from social media and friendly conversation.

"Microdosing is best described as the practice of regularly con-

suming a very small amount of a psychedelic substance, usually 5-10% of a regular dose, with the intention of improving one's quality of life. Microdosing does not cause classic psychedelic effects such as visual disturbances; instead, microdosers experience more subtle, "sub-hallucinogenic" effects from the practice. Microdosing is a practice that yields best results when it's done over an extended period of time following a dosing scheme, or protocol. The exact effects and results of this practice depend greatly on the person, the substance, the dosage and many other personal factors such as their intention, their expectations and mindset."

There is good evidence that psychedelic compounds have played a significant role in developing human civilization. Archaeological evidence and anthropological analysis all give credibility to the idea that psychedelic compounds in human use have been around

a very long time. They seem to have been often restricted to special persons with the community and also limited to special groups at ceremonial gatherings. There is evidence derived from current indigenous cultures to support these ideas. The emerging impression is that the compounds were used at higher doses to induce stimulating and sometimes dramatic altered states. Broad popular "recreational" use is much harder to assess and is less likely. It is also not clear that practices representing "microdosing" have a real place along this historical timeline.

The mid-20th century represents an inflection point in the awareness in popular modern society of psychedelic compounds. Anthropological interactions with indigenous cultures began to create new levels of curious interest in psychedelic plants. Around the same time, Albert Hofmann, a Swiss pharmacological research-



er, accidentally synthesized LSD in 1938 from the ergot fungus and experienced the first ever LSD trip. LSD was first utilized in psychotherapy and scientific study in the 1950s, mostly to treat anxiety, depression, addiction, and psychosomatic diseases. LSD was the subject of intensive (psycho) pharmacological study, which resulted in almost 10,000 scholarly papers. In the years that followed, medical experts, scientists, and even the U.S. government expressed an interest in the novel chemical. The CIA's infamous MK ULTRA program looked at the use of LSD for "mind control". (<https://microdosinginstitute.com/>)

To stay on target regarding "microdosing", it is time to introduce James Fadiman. Fadiman is often credited as being the Father of Microdosing.

James Fadiman is an American writer known for his research on microdosing psychedelics. Fadiman received a Bachelor of Arts degree from Harvard University in 1960 and a Master's degree and a doctorate (both in psychology) from Stanford University, the PhD in 1965. While in Paris in 1961, his friend and former Harvard undergraduate adviser, Ram Dass (then known as Richard Alpert), introduced him to psilocybin. In the early sixties Fadiman was also part of the psychedelics in problem-solving experiment at the International Foundation for Advanced Study, which was abruptly halted in 1966. Fadiman's 2011 book *The Psychedelic Explorer's Guide* discussed the use of psychedelics in sub perceptual doses and unknowingly helped to drive



the modern microdosing movement. (<https://www.esalen.org/faculty/james-fadiman>)

"In 1966, a team of scientists under the leadership of Dr. James Fadiman studied the influence of psychedelic agents on participants' creative problem-solving skills. In the "Psychedelic agents in the creative problem-solving" experiment, they tested 27 people working in creative professions such as engineers, architects, scientists, and designers. They gave them 200 milligrams of mescaline sulfate (This is comparable to 100 micrograms of LSD, so hardly a microdose) and had them work on a work assignment or problem.

The results were positive, leading many participants to come up with technologically advanced project proposals, products, and solutions that have been mostly accepted by their clients.

Participants reported various forms of increased performance:

- Less burden of inhibitions and fears
- The ability to see a problem in the right context
- Increased idea generation
- Better ability to visualize and use fantasy
- Better concentration
- Increased empathy for external processes and issues



- Increased empathy for people
- Access to unconscious information
- Increased motivation to complete a project
- Visualizing solutions

Shortly after this experiment, the FDA banned all scientific research on psychedelics. The influence of psychedelics on our creativity and problem-solving ability could not be investigated further for decades that followed." (<https://microdosinginstitute.com/>)

It is apparent that the current concept of "microdosing" is inseparably linked to the chemical nature of psychedelic compounds. The definition above, supplied by the Microdosing Institute, states "The exact effects and results of this practice depend greatly on the person, the substance, the dosage and many other personal factors such as

their intention, their expectations and mindset." As you can see, there are a lot of factors and variables involved with the process of "microdosing".

Is it possible that there exists some unrecognized unifying principle that allows for a more cohesive understanding of "microdosing"? Spoiler alert – the answer is YES, and it is hidden in the actual neurology of our brain.

It is now time to also introduce both the Grandfather and Great Grandfather of "microdosing".

An Unexpected Lineage:

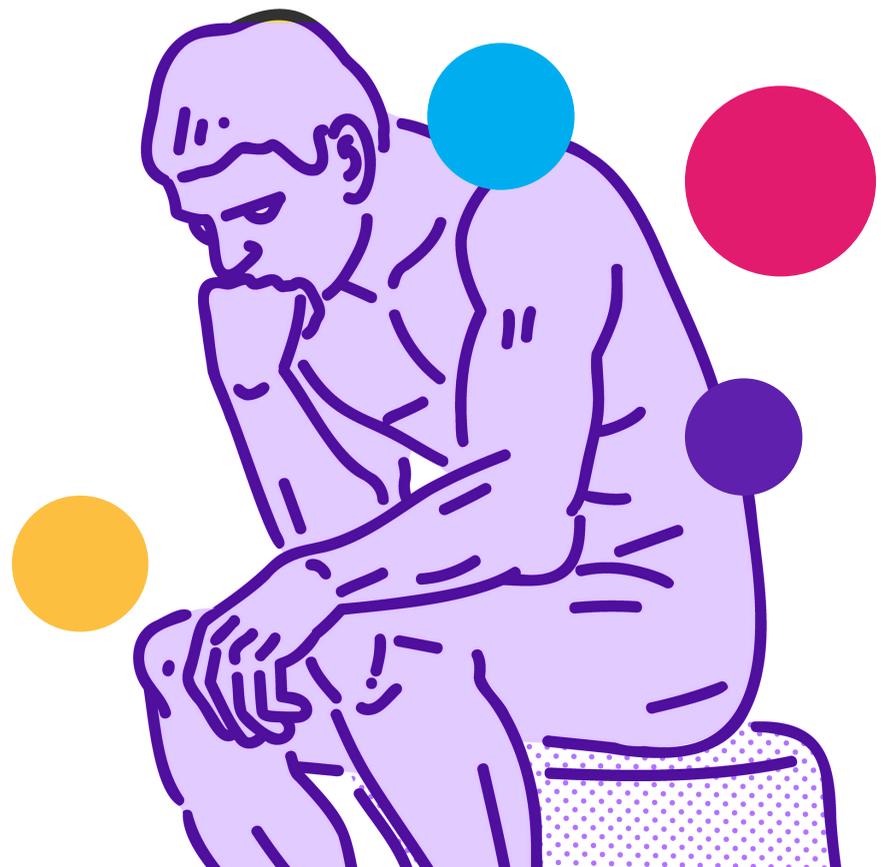
These two Canadians may or may not be familiar to you, especially in the context of "microdosing." Meet Hans Selye, the Great Grandfather and Donald Hebb, the Grandfather.

We will start with Hans Selye (1907 – 1982) – The Great Grandfather of Microdosing

Hans Selye & Stress:

To start with Selye is known more commonly as the Father of Stress Research. Here, he is also recognized as a key link in the evolution of the neurological foundation of "microdosing". (Hang in there, we will make this clear down below.) Selye's relentless work ethic was evident in his publications, which numbered more than 1,600 scientific articles and about 40 books. He was a nominee for the Nobel Prize in 1949, won many accolades, and published his best-known book, *The Stress of Life*, in 1956.

So, what does "stress" have to



do with “microdosing”? Now is the time to put on your “thinking cap” for a little while.

Today, the concept of stress and the word itself have a strongly negative connotation. In 1939, Selye introduced his landmark theory of stress. Selye saw “stress” in more complex ways and was very inventive in his exploration. He is most famous for what is known as the General Adaptation Syndrome (GAS) but we will not focus on that major insight. Rather we will look at a few of his more fundamental understandings.

These are the factors that link Selye/stress/neurology to “microdosing”.

Selye #1 – Stress in and of itself is neither good or bad – its nature depends on a number of related factors.

Selye #2 - Some type of “agent” acts to introduce challenge into the system – if the degree of challenge (aka “stress”) is sufficient to match and slightly exceed the minimal level of excitation, it will result in an arousal of the adaptive response in the system.

Selye #3 – The stressor “agent” perturbs the “status quo” of the system – the “agent” acts to disrupt or de-stabilize the system and provoke an adaptive response.

Selye #4 – The stress “agent” is not the main factor but instead it is the degree or amount of challenge that is at the core of its action.

Selye #5 – Depending on the context, the challenge may be either a “eustress” (positive) or a “distress” (negative).

Selye #6 – As much as “distress” is definitely a negative, “eustress”



is not only positive...it is critical for growth, learning, adaptation and even survival itself.

Selye #7 - Eustress occurs when the gap between what one has and what one wants is slightly pushed, but not overwhelmed. The goal is not too far out of reach but is still slightly more than one can handle. This fosters challenge and motivation since the goal is in sight. The function of challenge is to motivate a person toward improvement and a goal. (<https://en.wikipedia.org/wiki/Eustress>)

Now we have the insightful elements collected from Selye that allow us to clarify the first step in linking "microdosing" to our innate neurology.

An adaptive response in our system is triggered fundamentally by the degree of stress and not the type of the stressing agent.

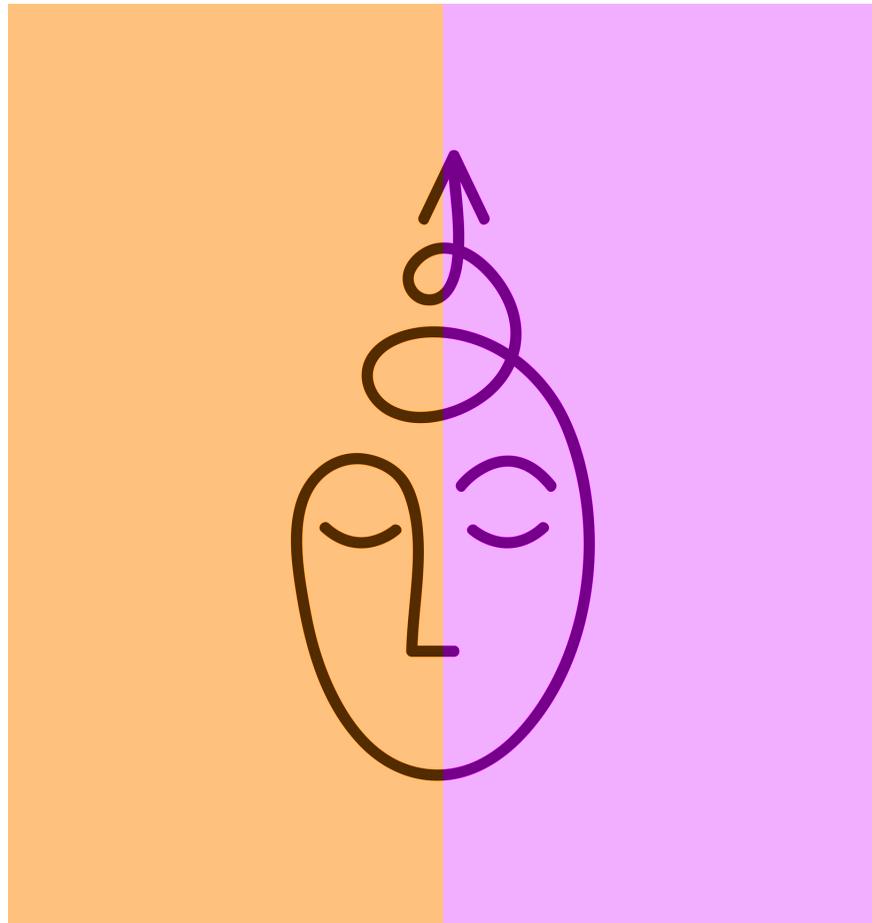
A small degree (low level/micro) of any stressing agent is capable of eliciting a positive eustress response.

The eustress response will drive the system towards positive new growth and adaptive change.

Any stressor "agent" that can be calibrated into lower (or higher) degrees of challenge can act to induce a "eustress" response.

It is well known that psychedelic compounds at higher levels act to significantly disrupt or de-stabilize common neurological activities in our brain - it can be assumed that the same compounds are capable of very gentle de-stabilizing "eustress" actions at much lower, "micro" levels.

It is noted that the current approach to Conventional Compound Microdosing utilizes a range



of different types of compounds some of which are not even considered classic psychedelics.

Following this principle, any stressor "agent" (and not the type) that can be calibrated to low levels of "dose" can also trigger the same neurological adaptive responses.

Next, we have Donald Hebb (1904 - 1985) - The Grandfather of Microdosing

Donald Hebb & Neuroplasticity:

Donald Hebb was a Canadian psychologist who was influential in the area of neuropsychology, where he sought to understand how the function of neurons contributed to psychological processes such as learning. He is best known for his theory of Hebbian learning, which he introduced in his classic 1949 work

The Organization of Behavior. He has been described as the father of neuropsychology and neural networks. (https://en.wikipedia.org/wiki/Donald_O._Hebb)

Hebbian Learning is now called "neuroplasticity". Neuroplasticity is the concept that states that the adult human brain is capable of positive neurological growth, change and new adaptive learning. Adult brain neuroplasticity occurs predominantly in the hippocampus area of the brain which is responsible for learning, long term memory formation and memory retrieval. (<https://www.news-medical.net/health/Hippocampus-Functions>)

The basis of the theory is when our brains learn something new, neurons are activated and connected with other neurons, form-

ing a neural network. These connections start off weak, but each time the stimulus is repeated, the connections grow stronger and stronger, and the action becomes more intuitive. ([https://thede-
cisionlab.com/reference-guide/
neuroscience/hebbian-learning](https://thede-
cisionlab.com/reference-guide/
neuroscience/hebbian-learning))

Above, we asked what does Selye and "stress" have to do with "microdosing"? It is fair to ask the same basic question now. What does Hebb and "neuroplasticity" have to do with "microdosing"?

These are the factors that link Hebb/neuroplasticity/neurology to "microdosing".

Hebb #1 - the adult brain can change in positive ways if it is induced to change with effective stimulation.

Hebb #2- to get the neurology to change you must "fire it to wire it" (which goes very nicely with "use it or lose it).

Hebb #3 - in neuroplasticity, "the brain changes what matters" - which means you have to "get the attention" of the brain by inducing a disruptive or de-stabilizing challenge (aka a "stressor").

Hebb #4 - the challenge must not be too great and all at one time - the challenge must act at a low level and create just "marginal demand". (Here you may recall from above Selye #7 - "Eustress occurs when the gap between what one has and what one wants is slightly pushed, but not overwhelmed.")

Hebb #5 - a "eustressor" is a gentle but effective trigger for neuroplastic adaptation and positive change - other than the low level of stimulation, the amount of regular repetition and reinforcement is mandatory for actual integration - the "firing" must repeat for the "wiring" to stabilize.

Hebb #6 - Repeating the low-level stressor at regular periods will slowly move the "short-term state change" (which relies on the stimulus to be present) towards "long-term trait change" (which is now habituated and does not require the stimulus to be present) - this is the State to Trait principle of new neurological learning.

Now we have gathered from Hebb understandings about "neuroplasticity" that allow us to even further clarify the realistic linking of "microdosing" to our innate neurology.

Actual neuronal connections and growth can change towards positive new learning and behaviors - this is a natural and innate capacity of our adult human brain.

Repeated low-level, "marginal demand" "eustress agents" are capable of gently and reliably triggering positive neuroplastic change.

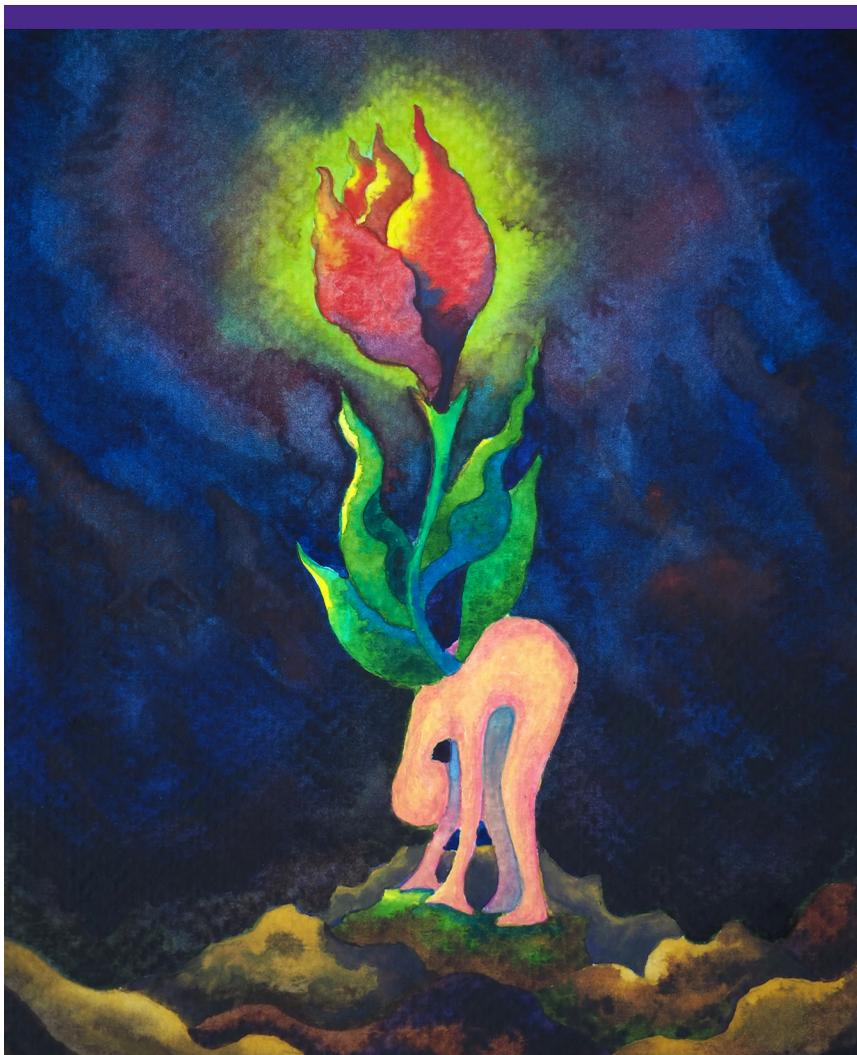
The types of "eustressor agents" include psychedelic compounds while also including a wide range of other agents that are capable of triggering the "marginal demand" aspect of neuroplastic change.

With repeated "doses" of the "eustress agent" as stimulation combined with reinforcement, the process will lead to progressive integration of the new positive neuroplastic change - State to Trait transformation.

Putting It All Together:

Like we say in the title of this paper...It's the Little Things that Count.

Our adult brain is still capable of positive change. Just nudge



it along with a eustress agent of any kind at low-levels of marginal demand and repeat it often enough that the brain accepts it as a State to Trait integration.

A "eustress agent" must be able to gently perturb the "status quo" of our brain without triggering an outright defensive reaction (a "distress" instead of a "eustress").

To better understand the brain, remember that our brain is physical. So much of what you have learned about our physical body also applies to your brain...because our brain is physical!

Think about your experience in doing stretching exercise for your muscles. A little bit every day and you will get progressively more flexible. If you aggressively attempt to lengthen the muscle all at once, it will tear. Major OUCH. The same is true of strengthening your muscles. A little bit of "marginal demand" on a regular basis will result in stronger muscles. Try to heavy lift all at once...and again the result is injury. So, perhaps think of making your brain stronger yet more flexible in small regular steps. Consider microdosing.

Exploring the Fadiman Protocol as an Example:

When looking at "microdosing" from a neurological brain point of view instead of solely focusing in the psychedelic compound as the stimulating agent, we have new fascinating information emerge. Here the classic Fadiman Protocol serves as a great template.

Essentially, the human organism organizes itself around core principles. Harmonic relationships are one such principle.

First, let us consider the dynamics of fundamental neuroplastic change.

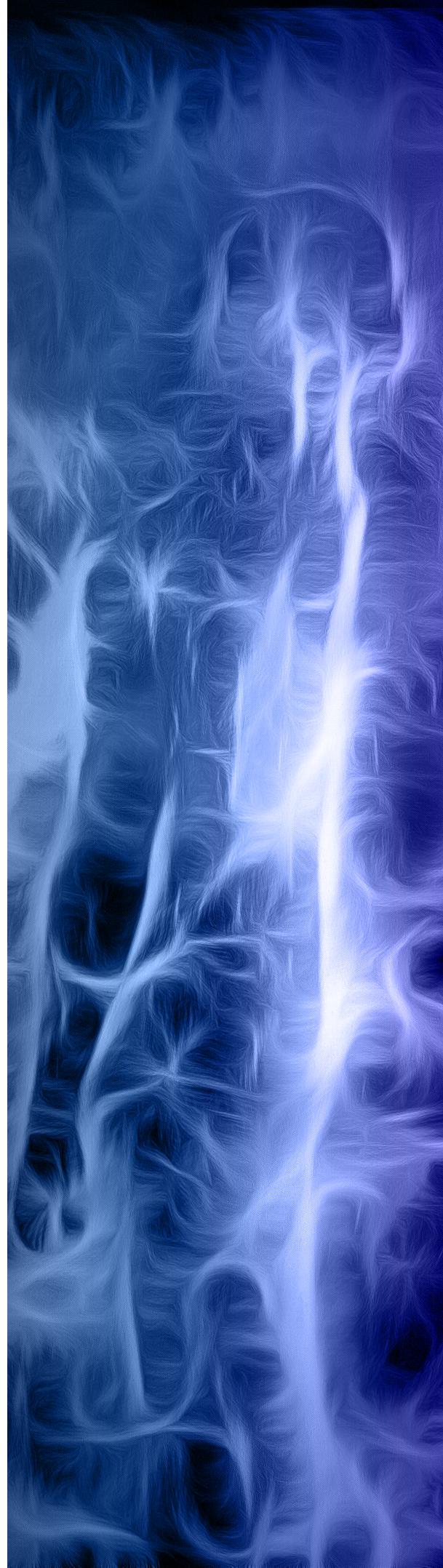
- 1) Neuro-Stimulation (the "input reaction"); 0 - 2 hours
- 2) Neuro-Modulation (the "reaction response"); 2 - 8 hours
- 3) Neuro-Relaxation; (the "response relief"); 8 - 24 hours
- 4) Neuro-Differentiation (the "relief result") 24 - 48 hours

Now let's break these down to better understand.

1) Neuro-Stimulation is like giving information/food to a hungry brain. It has an appetite and is hungry for the info/food because it is the way it can keep the learning going and solve the problem. It is mandatory for self-organization and adaptation. It triggers a mobilization of self-regulation and things immediately begin to improve even at this very early stage. Yummy!

2) Neuro-Modulation now kicks into gear and all of the multiple Brain Networks have an improvement of functions. This decreases the 'super-sensitivities' that have formed as the Brain has been lacking certain Adaptive responses. Perhaps most importantly, the Neuro-Modulation stage allows the Brain Stem "Reticular Activating System" (RAS) to "reset" which is wonderful because it means that the "arousal level" that was causing all those "super-sensitivities" to manifest gets "calmed down" and normalized (whew, that feels better:-).

Neuro-Relaxation happens after the Neuro-Modulation does its work by resetting the "arousal levels" and calming those "super-sensitivities. All the Brain Net-



works and associated circuits get to "Rest & Restore" themselves.

This is great because now the (#2 above) Neuro-Modulation activities get to keep at work by "flipping ON" many dormant circuits to engage in Movement, Mental and Sensory Neuroplastic stimulating signals. The signals are made more potent at converting their "brain signals" into "mind messages". It is only with corrected self-regulation via brain

modulation, brain rest, and adequate energy restored, can the brain rhythms be restored.

This is the stage when a person has the chance of overcoming the maladaptive learning involved in the Limbic Trauma Loop (aka PTSD) as well as other mal-adaptations.

Neuro-Differentiation is the resultant long-lasting stage when enduring positive learning can be integrated into the Stable State

brain functioning. Now the new habits take charge.

Now, now look at the Fadiman Protocol:

Day 1 (0 - 24 hours) > Dose,
Day 2 (24 - 48 hours) > Transition,
Day 3 (48 - 72 hours) > Normal/Rest.

Now, let's consolidate the Neuroplastic Change dynamics with the Fadiman Protocol dynamics.

Day 1: 0 - 24 hours

Neuro-Stimulation
(the "input reaction")
0 - 2 hours

Neuro-Modulation
(the "reaction response")
2 - 8 hours

Neuro-Relaxation
(the "response relief")
8 - 24 hours

Fadiman Protocol
Dose Day
0 - 24 hrs

Day 2: 24 - 48 hours

Neuro-Differentiation
(the "relief result")
24 - 48 hours

Fadiman Protocol
Transition Day
24 - 48 hrs

Day 3: 48 - 72 hours

Neuroplastic
Normal/Rest
48 - 72 hours

Fadiman Protocol
Normal/Rest Day
48 - 72 hrs



What is Drug-Free Microdosing:

Considering all the information above, it is definitely realistic to consider Microdosing in a different and expanded neurological light. Microdosing appears to be an approach of gently and progressively inducing positive neuroplastic changes in our brain. The keys appear to be low-level eustress agents that are capable of safely inducing triggers of change in the brain. With repetition and eventual integration, the State to Trait evolution will occur.

Exploring Microdosing (whether Conventional Compound or Drug-Free) from the neurological perspective instead of the chemical opens the doors to many critical insights -- "Microdosing - it's all about your brain regardless how you get there".

One dynamic approach to Drug-Free Microdosing is the regular application of well-crafted Light and Sound stimulation as a series of progressive "eustress agents". The stimulation acts in a manner similar (if not perhaps as the same) as a low-level psychedelic compound.

The concept of Drug-Free Microdosing is not meant as a replacement for Conventional Compound Microdosing but rather as an optional alternative or even companion - there is no intention of discrediting the psychedelics as a means of Microdosing - if anything, these insights into the dynamics of Microdosing can be viewed as a support to the credibility of the use of sub-perceptual psychedelics when viewed neurologically as effective "eustressors" (positive stimulation) triggering beneficial neuroplastic changes in the brain.

About Garnet Dupuis



Garnet is co-founder of Lucid Studios/ NeuroVizr™, Thailand. He currently resides in the tropical mountain rainforest in Northern Thailand. He is a life-long meditator and practitioner of Tibetan Dzogchen. Garnet is active in wild animal rescue and conservation and has built, manages and funds a sanctuary for SE Asian apes.

Website: <https://NeuroVizr.com/>

ENTERTAINMENT FOR A CHANGE

WHITE PAPER BY
LUCID STUDIOS



DEATH OF THE GROWN UP

"As far as the West is concerned, grownups are extinct. The disease that killed them emerged in the 1950s, was incubated in the 1960s and became an epidemic in the 1970s, leaving behind a nation of eternal adolescents who can't say no, a politically correct population that doesn't know right from wrong. The result of such indecisiveness is, ultimately, the end of Western civilization as we know it."

- Diane West, *Washington Times* journalist and author.

"Once, there was a world without teenagers. Literally. 'Teenager' the word itself, doesn't pop up into the lexicon much before 1941. This speaks volumes about the last few millennia. In all those centuries, nobody thought to mention 'teenagers' because there was nothing, apparently, to think about mentioning. Children in their teen years aspired to adulthood. Certainly, adults didn't aspire to remain teenagers."

- Diane West

AMUSING OURSELVES TO DEATH

"As Huxley remarked in *Brave New World Revisited*, the civil libertarians and rationalists who are ever on the alert to oppose tyranny "failed to take into account man's almost infinite appetite for distractions."

- Neil Postman.

"In 1984, Orwell added, people are controlled by inflicting pain. In *Brave New World*, they are controlled by inflicting pleasure.

In short, Orwell feared that what we fear will ruin us. Huxley feared that what we desire will ruin us. Orwell feared that what we hate will ruin us. Huxley feared that what we love will ruin us."

- Neil Postman.

ARE WE HAVING FUN YET

"We are all robots when uncritically involved with our technologies."

- MARSHALL MCLUHAN

ZONKED OUT

"The first step towards waking up is to recognize how zonked out and automatic we already are; such dispassionate and reductive observations help dispel delusions, reveal genuine possibilities, and thus paradoxically enable us to cultivate some of the most deeply human aspects of being."

- Erik Davis, *The Spiritual Cyborg*

"People will come to adore the technologies that undo their capacities to think"

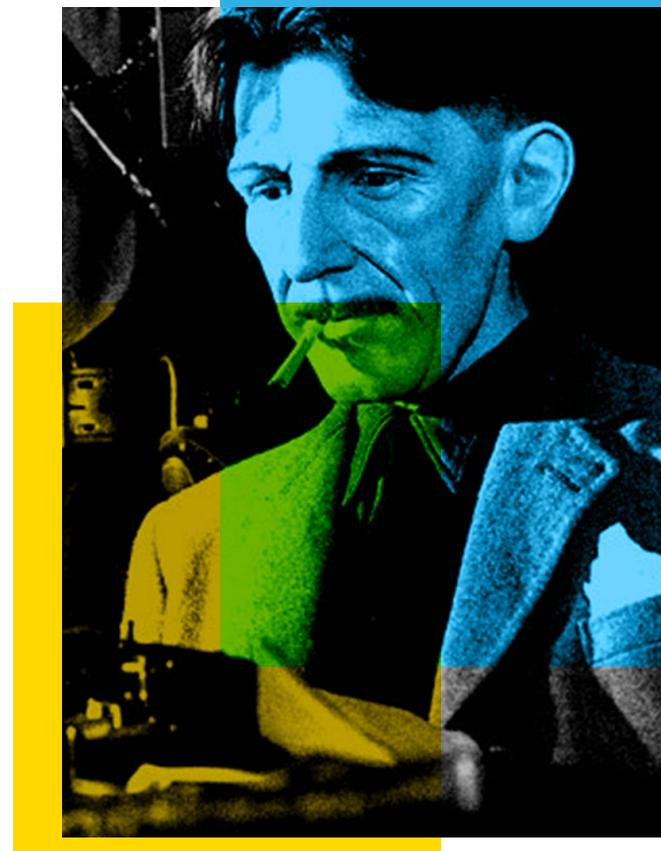
- Neil Postman

SEEKING TRANSCENDENCE

In early Greek culture, we find two approaches to fulfillment. Each aim for transcendence

Eudaimonism approaches happiness and contentment through experiences of **meaning and purpose**.

Hedonism approaches happiness and contentment through experiences of **pleasure and enjoyment**.



ARISTOTLE & THE TRICK IN ANCIENT GREEK THEATER

What if entertainment contains a secret technology for maximizing our mental health and happiness? Such was the brave hypothesis sketched with sticky pine ink upon a Nile grass scroll in 335 BCE. The sketcher was Aristotle.

The trick was simple – lure the people into days and nights of pleasurable entertainment while refining their deeper sense of meaning and purpose in life.

The Great Dionysia was a large festival in ancient Athens in honor of the hedonistic god of wine Dionysus. The central events of the festival were the theatrical performances of dramatic tragedies, comedies, and the satyr play, which treated some heroic subjects in burlesque fashion. It was a three-day event with daytime plays and nighttime rowdy good fun.

THE TROJAN HORSE

“When a population becomes distracted by trivia, when cultural life is redefined as a perpetual round of entertainments, when serious public conversation becomes a form of baby-talk, when, in short, a people become an audience, and their public business a vaudeville act, then a nation finds itself at risk; **culture-death is a clear possibility.**”

– Neil Postman

“Everything in our background has prepared us to know and resist a prison when the gates begin to close around us..

But what if there are no cries of

anguish to be heard? Who is prepared to take arms against a sea of amusements.

What is the antidote to a culture’s being drained by laughter?”
– Neil Postman

THE STRATEGIC OPPORTUNITY

There is then the strategic opportunity to employ distracting entertainment as an irresistible bait.

Craft entertainment as a Trojan Horse carrying in its belly concentrated infusions of real purpose and meaning.

When given only lemons then turn them into lemonade

MOTIVATION & THE HIERARCHY OF NEEDS

Abraham Maslow, best known for his basic Hierarchy of Needs, further expanded his model to express the Motivational dynamics characteristic of humans.

Beyond the conventional highest level of Self-actualization, he realized the peak achievement as being Self-transcendence – a state of growth and being that went beyond the individual actualization to include a sense of the whole and Oneness.



USING RESONANT ENTERTAINMENT AS A TOOL FOR SELF-TRANSCENDENT CHANGE

In Aikido, the core principle is to redirect the momentum of the attacking force to your own advantage. The powerful momentum of pleasure and enjoyment in today's society can be redirected into purpose and meaning.

"...there must be a sequence to learning... that individual pleasures must frequently be submerged in the interests of group cohesion, and that learning to be

critical and to think conceptually and rigorously do not come easily to the young but are hard-fought victories." - Neil Postman

The goal, simply put, is to create Meaningful Entertainment by employing powerful First Language Light/Sound experiences. *As with the early Greeks, we transform the basic hedonic appetite for pleasure and enjoyment into the eudaimonic satisfaction of meaning and purpose.* The fundamental drives for existential "resonance" yield self-transcendent entertainment experiences. In the new jargon... Resonant Entertainment.



FIRST LANGUAGE LIGHT & SOUND IS PSYCHEDELIC! (MIND-MANIFESTING)

There is a major cultural movement towards a reevaluation of psychedelic compounds.

The possibilities range from personal self-transcendence to clinical treatments for PTSD.

This powerful wave is converging into other equally potent trends such as the advancing brain science of neuroplasticity, validation of traditional yogic/meditation practices and compact personal technologies.

ELECTRIC PSYCHEDELICS

Lucid Studios' technology is pushing the discoveries forward with revolutionary wearable "Electric Psychedelic" experiences.



One industry-leading Biohacker authority has described the short First Language Light/Sound sessions as being "The Executive DMT".

KEEPING IT FUN BY KEEPING IT "WEIRD"

"The more totalizing the effort to explain consciousness and all its features, the more seriously researchers must engage, in a nontrivial manner, the most marvelous and otherworldly events: lucid dreaming, placebo healings, out-of-body journeys, near-death experiences, extreme sports, meditative insights, DMT other-worlds and a whole host of apparitions, paranormal phenomena."

– Erik Davis, *TechGnosis, Afterword*

"While intricate (and intransigent) sociobiological explanations for all this weirdness will continue to be presented as the only serious game in town, and while the organized (and well-funded) armies of militant skeptics will continue to fan the smokescreen that surrounds serious parapsychological research, the phenomena themselves must be taken seriously as experiential realities. Weirdness, in other words, cannot be simply swept under the rationalist carpet, as it is thoroughly woven into the world that needs to be explained – and that will continue to be experienced, above and beyond all explanation."

– Erik Davis, *TechGnosis, Afterword*

NON-ORDINARY CONSCIOUSNESS (NOC)

Non-ordinary States of Consciousness (NOCs) are generally associated positively with meditation, mystical, psyc-

delic and, in traditional cultures, shamanic experiences. The qualia of NOCs can range dramatically from subtle and sublime to spectacular, complex and multidimensional.

Many persons experiencing a NOC also claim a strong psychospiritual content. A challenge exists in the integration of Non-ordinary Consciousness experiences and the Ordinary or Common States of Consciousness that exist most of the time for most people. Is there a thread that connects the Mundane with the Majestic?

NON-ORDINARY CONSCIOUSNESS - A LONG HISTORY

Ancient and aboriginal cultures have spent much time and energy developing powerful mind-altering techniques that can induce holotropic (aka



Non-ordinary Consciousness) states. These 'technologies of the sacred' combine in different ways chanting, breathing, drumming, rhythmic dancing, fasting, social and sensory isolation, extreme physical pain, and other elements.

(Eliade 1964, Campbell 1984).

Many cultures have used for this purpose botanical materials containing psychedelic alkaloids.

Stafford 1977, Schultes and Hofmann 1979).

- Psychology of the Future: Lessons from Modern Consciousness Research, Stanislav Grof, M.D.

NON-ORDINARY CONSCIOUSNESS - GOOD OR BAD?

Many fundamentalist religions and cultures prohibit hedonistic practices associ-

ated with alcohol, drugs, art, music, singing, dance and, of course, sex. They appear to restrict the person to conservative life-styles with the expectation that experiences of the divine can be accessed through regulated shaping of the Ordinary.

Is the pleasure and enjoyment of Hedonism an innate trigger for Non-ordinary States of Consciousness? A review of cultural histories indicates that the urge and appetite for Non-ordinary Consciousness is likely rooted in our very biology and manifest in our psychology.

IS PLEASURE NON-ORDINARY?

Given the opportunity, many people struggle to specifically define and describe their experiences of "pleasure".

There appear to be many types or versions of "pleasure". Most people do not express "pleasure" as "ordinary" but rather as a unique and, often, exceptional experience that punctuates an otherwise mundane condition of everyday life.

Common pleasures appear to promise rewards that are actually fairly inconsistent and, in the short term, often deflating or disappointing. Some pleasures result in sustained satisfaction while many set the stage for more craving. Can pleasure be shaped as a Non-ordinary vehicle of Consciousness that drives towards sustained reward in the form of meaning and purpose?



IS CHILDHOOD CONSCIOUSNESS NON-ORDINARY?

"It seems that children, especially before the consolidation of their sense of personal identity, 'jive' closer to 'open space' than adults in many ways. They change quite rapidly, incorporate all kinds of contradictions, and do not need a consistent persona to refer everything back to.

They have frequent "lapses" into what appears to be "empty-mindedness," which might be called "spacing-in." The child's spacing-in is different from distracted "spacing-out" . . . in that the child is naturally close to an "open ground", which gradually becomes more and more obstructed as he gets older"

(Welwood, On Psychological Space. J. Transpersonal Psychol., 97-118, 1977b, p, 109).



LEAVING CHILDHOOD CONSCIOUSNESS - PARADISE LOST?

"Experiences of timeless realities may come to the very young child As the child grows older, problems of the outer world press upon him. His ego must grow to meet the demands of greater consciousness and numinous experience may appear to be forgotten by the ego, but it is remembered by the self - that sage who from the beginning lives in the psyche of the child and speaks the defining word in times of peril."

-(Wickes, F.G. The inner world of childhood. New York: Mentor, 1966.)

RESONANT ENTERTAINMENT - PARADISE REGAINED?

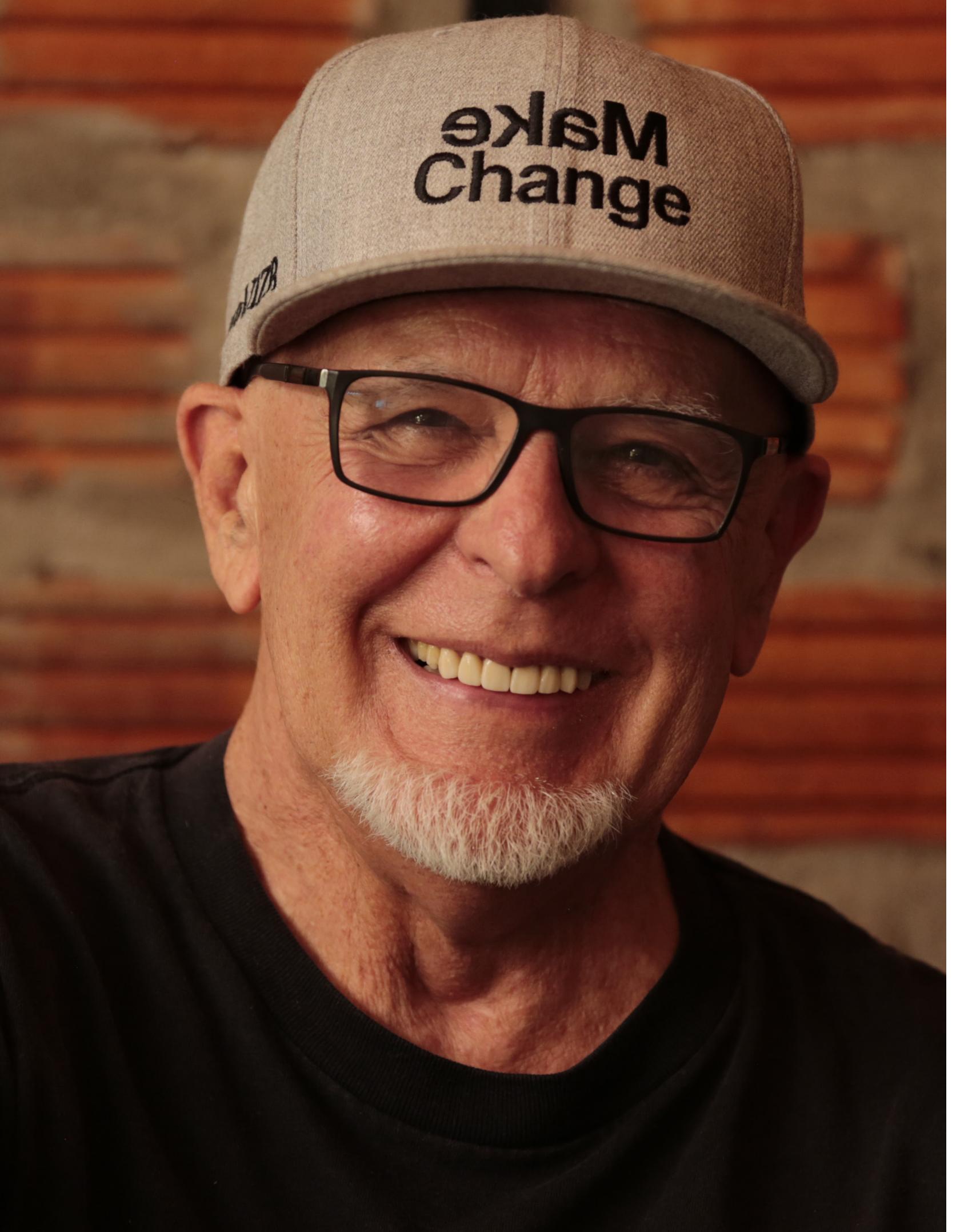
The principle of Resonant Entertainment is to use the Hedonistic window of enjoyment to access varying degrees of pleasure-inducing Non-ordinary Consciousness. These positive rewards act as a "Trojan Horse" inducing a deeper "resonant" awakening of sustained meaning and purpose. Satisfaction yields to appreciation. The duality-based antagonistic polarization of pleasure and purpose dissolves into a wholeness of natural integration.

The "open ground" of childhood is reawakened in the adult. Responsibility has its rewards without restrictions forbidding the magic and wonder of life.

by Garnet Dupuis

Make
Change

1/1/17



WORLD'S FIRST DRUG-FREE MICRODOSING TECHNOLOGY



Now available for all.

Garnet Dupuis is the first to introduce Drug-Free Microdosing with NeuroVizr™.

Remarkably, it's not the substance, but your incredible brain that is able to form new connections with precise and powerful stimulation. By recreating psychedelic states with light and sound, brain neuroplasticity increases, allowing more creativity, relaxation, and focus. NeuroVizr™ shows you the path to a brighter future, more safely and legally.

Ready to begin your transformative journey?

Learn more and pre-order the new VIZR™ device at www.neurovizr.com.



neuroVIZR™
The Change Maker

HEALING TRAUMA AND EXPANDING CONSCIOUSNESS THROUGH LOVE & PLANTS



Garnet Dupuis:

Atira, as we begin our conversation today, could you introduce yourself to those who might not be familiar with your work? While we haven't had many interactions, I've always admired your dedication to serving communities through care, teaching, and uplifting. To me, your presence and efforts evoke profound respect.

Atira Tan:

Thank you. There's much to share about my journey and beliefs.

My central passion revolves around fostering love, compassion, and service in the world. As we delve into the concept of expanding consciousness, I firmly believe that true expansion lies in giving back and reciprocating the love and resources our planet offers us, rather than merely aspiring for otherworldly experiences.

Garnet Dupuis:

That's a perspective I've not often encountered. Can you elaborate?

Atira Tan:

Certainly, many people on the quest for expanded consciousness tend to gravitate towards transcendence, often overlooking the physical realm. But, in my belief, consciousness is deeply rooted in our bodies and our immediate three-dimensional reality. My mission is to serve humanity by emphasizing the interconnectedness of all sentient beings on this planet, fostering care for our collective hearts and soul.

Garnet Dupuis:

For clarity's sake, can you share more about your profession and whom you serve?

Atira Tan:

Of course. My work stems from my personal experiences and adventures in understanding consciousness. I recall a transformative trip to Cambodia when I was in my early twenties, where I witnessed young girls being trafficked into sex slavery. This encounter illuminated my privilege and steered my commitment to helping these innocent souls. My mission is to support these women and girls, allowing them to reclaim their sovereignty and break free from the chains of exploitation. Professionally, I'm a trauma-informed educator and a somatic trauma specialist. I aim to bring about holistic healing by combining diverse methods, primarily focusing on trauma imprints that surface in therapeutic settings, such as during plant medicine sessions.

Garnet Dupuis:

To summarize, would it be accurate to say that your expertise lies in trauma, with an approach that integrates bodily experiences and, occasionally, plant medicines or psychedelics?

Atira Tan:

It's a bit more nuanced than that. My methodology is deeply holistic, bridging existence's physical, spiritual, and psychological aspects. My intent is to provide comprehensive healing by tapping into all these facets.

Garnet Dupuis:

So, as an educator, who are your primary students or participants?

Atira Tan:

My teaching spans various demographics. I've trained yoga instructors, assisted third-world



organizations in understanding trauma, and more recently, focused on the intersection of psychedelics and trauma.

Garnet Dupuis:

The reason I've been keen to discuss this with you is your unique approach in a domain that's often uncharted or misunderstood. Your courage to tackle some of the darkest aspects of trauma is truly commendable.

Atira Tan:

Thank you, Garnet. Confronting these shadows and emerging as an antidote to collective heartache requires immense bravery.

Garnet Dupuis:

I resonate with that. From my own experiences with wildlife rescue, it's a path not meant for everyone. The emotional toll can be overwhelming.

Atira Tan:

Absolutely. But witnessing healing, even in the smallest of instances, makes it all worthwhile. To me, those moments are when divinity manifests.

Garnet Dupuis:

It's intriguing to see the contrast between the Western focus on personal self-improvement and your altruistic path. How has helping others the way you do benefit you personally?

Atira Tan:

That's an insightful question, Garnet. While there's a risk of being too self-absorbed, my bond with the girls and women I work with, being an Asian woman myself, has enriched my life in countless ways. Their resilience

and spirit remind me of the importance of empowerment in the face of adversity.

Garnet Dupuis:

Can you provide some insights into your background?

Atira Tan:

Certainly. I was born in Singapore and moved to Australia at the age of 16. My mother is a fourth-generation Chinese. During her birth, it was World War II, and there was a pervasive belief in Asia that females were inferior to males. This mindset led my grandmother to give away my mother, while showering all her affection on her only son. My personal history and my mother's experience instilled in me a drive to challenge and transform this harmful paradigm. Despite Singapore's modernity compared to places like India and Nepal where I've worked, the legacy of this female subjugation still weighs heavily on me. My mission revolves around empowering girls and women, emphasizing that all genders deserve equality. Witnessing the horrors of sex trafficking and its impact on countless lives, I'm compelled to make a difference.

Fundamentally, I believe everyone, irrespective of gender, is equal. I'm passionate about elevating those who have been marginalized and undervalued. My unique gift lies in my ability to connect, listen, and be present with others deeply. This strength serves me well as a therapist and educator. When blessed with a gift, I believe it's our duty to harness it for the greater good. This sense of purpose gives profound meaning to my life.



Garnet Dupuis:

You mentioned integrating psychedelic compounds in trauma work earlier. It's an intriguing connection between the harrowing world of human trafficking and psychedelic-assisted therapy. How do these domains intersect for you?

Atira Tan:

Let me clarify: I don't administer psychedelics to the women and girls I work with. My journey with psychedelics began as a means to address my complex trauma and disassociation. While these compounds opened doors to realms like transpersonal psychology and yogic philosophy, real healing required consistent effort post those psychedelic experiences. My spiritual pursuits in India and exposure to yogic teachings have shown parallels between the conscious states achieved through psychedelics and meditation.

While I deeply resonate with plant medicines and use them for

personal spiritual exploration, I've noticed that human facilitators often fall short. For instance, my first interaction with plant medicine was marred by an assault from the supposed shaman. What shocked me, even more, was the community's dismissive attitude toward the incident. With years of plant medicine experience, I've realized the importance of creating safer spaces and protocols. These sacred ceremonies demand reverence.

My vision is twofold: to elevate the standards of psychedelic sessions and to ensure that the trauma-inflicted ones don't suffer further in their quest for healing.

Garnet Dupuis:

In light of these experiences, do you offer assistance to those who've had adverse experiences during ceremonies?

Atira Tan:

Indeed, a significant part of my private practice is dedicated to assisting such individuals.

Garnet Dupuis:

Given the rising interest in psychedelic-assisted therapy, what advice would you offer to those intrigued by it?

Atira Tan:

The current renaissance in psychedelic therapy is indeed exhilarating. However, it's essential to approach it with caution. While psychedelics have profound therapeutic potential, they aren't magic pills. True healing requires commitment and consistent effort. For those considering this avenue, it's crucial to find well-trained, compassionate facilitators and be prepared for an introspective journey that demands work both during and post the sessions.

Garnet Dupuis:

What guidance can you offer for those curious about ceremonial rituals in remote locations and the medical applications of psychedelic therapy in professional settings? With the prevalence of





a “magic pill” mentality that advocates for a quick pharmaceutical fix, it’s imperative to tread with caution. How can you help clarify psychedelics’ true nature and potential pitfalls for us?

Atira Tan:

First and foremost, I urge individuals to recognize that while psychedelics and plant medicine can be immensely beneficial in expanding one’s consciousness and addressing deep-seated traumas, there are inherent risks. Like every element in life, there exists a duality—light and shadow. My hope is that through my teachings, individuals will embark on their personal journeys of healing with a comprehensive awareness of both the enlightening and dark aspects of this realm.

A significant concern arises when those facilitating these experiences lack emotional, psychological, or spiritual maturity. A

genuine respect for life, humanity, and oneself is pivotal. It’s vital to navigate this path with a clear perspective and refrain from surrendering too much power to these substances. Consider them as guides or companions. However, remember that our internal wisdom should always be the compass guiding our decisions.

Garnet Dupuis:

Your acknowledgment and appreciation of traditional yogic practices is evident. How do you harmonize the values of these time-tested spiritual traditions with the rapidly evolving landscape of psychedelic experiences?

Atira Tan:

Both traditional spiritual practices and psychedelics direct us towards understanding our true essence. The key question is, “Who am I at my core?” Both avenues point us towards the same desti-

nation. However, the revelations experienced during a psychedelic session require consistent effort and integration post-experience. In the modern Western context, there’s an urgency to achieve and progress swiftly. Yet, the true treasures lie in the journey itself. It’s in this journey that virtues like compassion, patience, and humility flourish. The pace of spiritual awakening, whether catalyzed by spiritual practices or psychedelics, should be respected and not rushed.

Garnet Dupuis:

Deep conscious relaxation, in my opinion, acts as a profound gateway. Does this state of relaxation feature prominently in your daily life?

Atira Tan:

Absolutely. I endeavor to allocate time for moments of introspection and genuine relaxation.

While I haven't mastered maintaining this state perpetually, I recognize its significance. Taking intentional breaks and moments of self-reflection is integral to my well-being. Ignoring these moments often results in heightened stress responses.

Garnet Dupuis:

In this edition, there's an insightful interview with Luis Eduardo Luna, who has an extensive history with indigenous ceremonies. He emphasizes the unique temporality and presence in indigenous cultures. Given your experiences with various indigenous communities, how have they influenced your perspective?

Atira Tan:

Indelibly. The core lesson from these diverse indigenous communities, be it in Burma, Australia, South America, Nepal, or even Thailand, is the art of presence. They embody a profound connection to the present moment. This starkly contrasts the Western paradigm, which often prioritizes action over being.

Garnet Dupuis:

Luis poignantly stated that we often deprive ourselves of the time to embrace space and the space to value time.

Atira Tan:

Precisely. Indigenous cultures inherently understand the balance between time and space. Their teachings highlight the beauty of subtlety, emphasizing that sometimes what's unspoken or invisible carries the most profound wisdom.

Whether we talk about astral planes, emotional states, or the delicate balance of life itself, one must appreciate the broader perspective of how ecosystems function and our interconnectedness within them. Indigenous communities inherently understand this because they're deeply immersed in it. They co-exist harmoniously with their environment, placing emphasis on 'being' rather than 'doing'. This starkly contrasts the Western mindset, which often prioritizes materialistic gains. Their intrinsic way of 'being' is often overlooked and undervalued in our fast-paced societies that prioritize money, power, and ambition.

When I spend time with these indigenous groups, I'm humbled and taught about a more holistic worldview. Their relationship with plants exemplifies this. In places like the Amazon, it's evident that all plants have a symbiotic relationship. This profound interconnectedness and vastness can be overwhelming for many in the West, where structure and control are paramount due to our collective traumas and distrust of the unknown.

Garnet Dupuis:

This boundless space you mention, would you liken it to a feminine aspect?

Atira Tan:

Labeling it as masculine or feminine might be an oversimplification. But there's undeniable vastness in this space, which is anything but empty. It's brimming with life, wisdom, and authenticity. Many over-





look this because they are too focused on tangible elements, like the cup, and miss the space around it. Until one recognizes and experiences this, it can appear intimidating.

One vital takeaway from indigenous philosophy is the notion of wholeness. As Carl Jung pointed out, it's about embracing our entirety rather than fragmenting ourselves to fit societal moulds. Indigenous wisdom emphasizes that we are all born whole, and it's the duty of our caregivers to safeguard this intrinsic completeness, allowing it to flourish. If we neglect this perspective, we might deviate from our true selves.

My time with indigenous communities has reaffirmed that residing in this 'state of being' feels like returning home. The concept of home isn't merely a physical space; it's a state of existence. However, due to the human condition, we oscillate in and out of this state. Embracing and protecting indigenous wisdom, not only for its intrinsic value but also for its potential to address global challenges like climate change, is paramount. With their millennia of knowledge, these communities offer invaluable insights into coexisting harmoniously with nature.

Their approach to spirituality and healing, particularly the meticulous and prolonged process of becoming a shaman, underscores the significance of time and dedication. The AWA family I work with believes in being chosen by nature to lead. Their method of selection, involving the growth of a chilli plant from

seeds passed naturally, symbolizes that it's not man's choice but nature's decree.

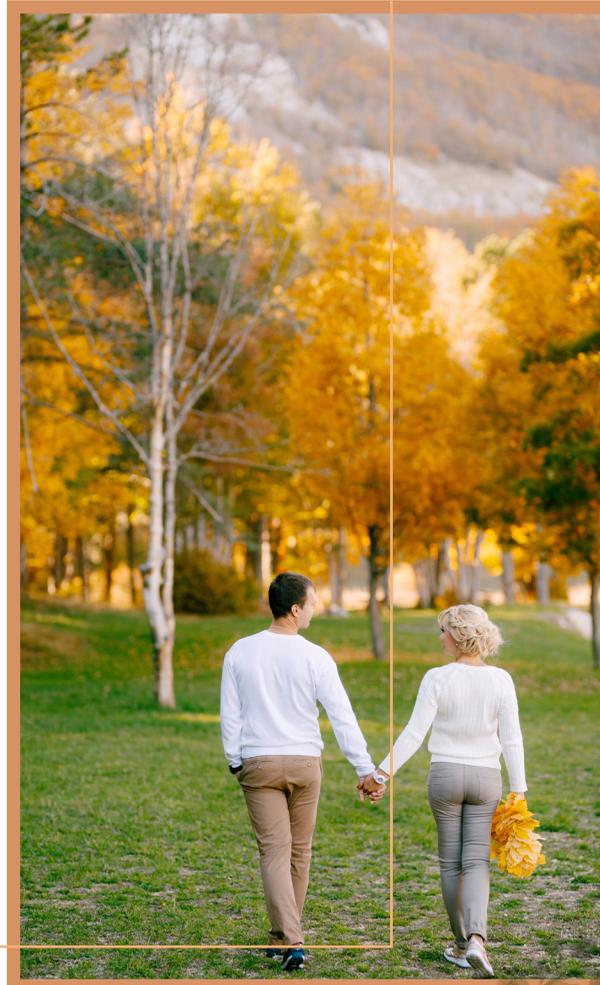
Garnet Dupuis: That's profound — being chosen by nature.

Atira Tan: Indeed. The lessons I've derived from my time there emphasize patience and the significance of time.

Garnet Dupuis: I echo the sentiments of many when I say, thank you for your invaluable insights and contributions.

Atira Tan: Thank you, Garnet. It's been a pleasure to share.

Garnet Dupuis: Farewell.



ARTIRA TAN



Atira Tan is deeply committed to empowering others to be leaders and trauma-informed practitioners. She is a Somatic Experiencing Practitioner, TED speaker, #1 Best Selling Author, and Expressive Art Therapist who founded Art to Healing, an Australian charity that supports the trauma recovery of sex-trafficked survivors in Asia..

In her private practice and retreat centres such as the Temple of the Way of Light, she specialises in trauma-informed, somatic plant medicine integration and therapy. Atira is currently the psychedelic integration director at AYA Healing Retreats. Atira has been mapping the trauma recovery of hundreds of plant medicine participants in her private practice as an integration trauma specialist for the last 6 years, and she co-facilitates Healing Trauma Plant Medicine retreats and diets in Peru. She is the founder of the Somatic Plant Medicine Integration Method, as well as the Trauma-Informed Plant Medicine Facilitation Program, with a community of over 800 students in three years.

<https://atiratan.com/>

<https://www.arttohealing.org/atira-tan/>

IG: [@atiratan](https://www.instagram.com/atiratan)

EVOLUTION OF CONSCIOUSNESS IN THE REALM OF MUSIC





Garnet Dupuis: Our focus today is on the evolution of consciousness, particularly as it intertwines with the realm of music. Kristjan, as someone deeply immersed in music composition and conducting, could you share your insights into how music becomes a conduit for exploration, discovery, and ultimately, the expansion of consciousness?

Kristjan Järvi: I'm Kristjan Järvi, which translates to "lake." Interestingly, water holds symbolic meaning for me. Inspired by Bruce Lee's profound saying, "become water, my friend," I find water's adaptability echoes in the essence of music. As water carries ancient wisdom, music holds the power to become everything, echoing universal truths.

Garnet Dupuis: And music has always been a part of your life?

Kristjan Järvi: Absolutely. My family, including my father, brother, uncle, and even my grandmother, were entrenched in the world of music. While my grandmother paved the way, my father became the inspiration for us, his sons, in our musical journeys. Although my sister diverged, choosing the path of a flutist.

Garnet Dupuis: And you've played dual roles, both as a composer and an orchestral conductor?

Kristjan Järvi: Yes. Coming from a traditional background, I've experienced the stereotype of a conductor whose role is often ambiguous. Yet, I've always yearned to create music that's emotionally resonant, not just cerebrally complex. Observing my father, I learned nuances subconsciously, which shaped my understanding of music.

Garnet Dupuis: Interesting. Now, could you delve a bit into the interplay of music, belief, and consciousness? How does music elevate and expand one's consciousness?

Kristjan Järvi: Like the Credo, composed by my father, music often embodies universal truths, presenting conflicts and resolutions. Music transcends tangible barriers, resonating in abstract, yet palpable ways. It's not easily confined or labeled, yet its impact can be profound, almost hallucinogenic.

Garnet Dupuis: So, would you equate music to a psychoactive agent?

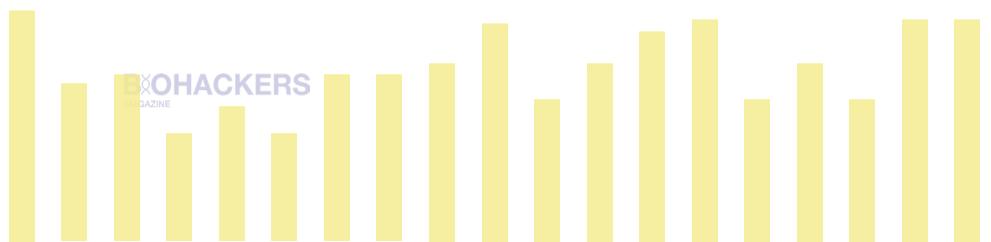
Kristjan Järvi: Without a doubt. Music invokes the same physiological responses as certain substances, releasing serotonin and dopamine, amongst other effects.

Garnet Dupuis: As we're tracing your journey, tell us about your transition from Estonia to the US?

Kristjan Järvi: Our move from Estonia was quite dramatic, reminiscent of a spy story. We had to navigate around the restrictions of Soviet-era Estonia, even maintaining secrecy within our home to ensure our departure's success.

Garnet Dupuis: In the US, did you pivot from classical to contemporary genres like hip-hop and rap?

Kristjan Järvi: While I initially envisioned a non-musical career, I was continually drawn back to music. I did have a penchant for hip-hop and rap during my youth in the US. But, my experiences, including forming the Absolute En-



semble in New York, solidified my desire to continually explore and expand the boundaries of music.

Garnet Dupuis: Absolute Ensemble? Tell us more about it.

Kristjan Järvi: It was an initiative birthed from the inspiration I drew from diverse music groups. Absolute Ensemble became a medium to explore the endless possibilities that music offers.

Our Absolute Ensemble wasn't just a musical venture; it was a movement. Our intent was to blur the boundaries between different musical genres and to weave together a tapestry of sound that defied classification. The Arabian Nights performance, in particular, was not just about music but making a statement—challenging prevailing sentiments and advocating for unity and understanding.

Garnet Dupuis: When you talk about this eclectic mix of artists

you've been influenced by, from John Cage to Brian Eno, it suggests a wide palette of inspiration. How do you reconcile these influences with your foundational training in classical music?

Kristjan Järvi: The late nineties was a transformative period. While my roots are in classical music, New York's thriving art scene exposed me to a variety of avant-garde and innovative sounds. Each of these artists, in their own way, challenged the status quo. They weren't just producing music; they were creating experiences. The fusion wave, the blend of instruments, the emergence of rap in classical setups—all these were pushing boundaries, questioning traditional norms, and I was there, right in the midst of it, absorbing and evolving. Harlem, with its rich musical history, played a significant role in shaping my perspective. The authenticity, the rawness, the rhythm—it was a revelation.

Garnet Dupuis: And as you evolved, how did you view classical compositions in juxtaposition with these modern influences?

Kristjan Järvi: Initially, I was a bit rebellious, even dismissing some classical pieces as being too rigid. But over time, I've come to appreciate that every form of music has its essence and beauty. It's about understanding the emotion behind the notes, the stories they tell. Each era, each composer, has something unique to offer. Instead of boxing them into categories, I started to see the threads of connection.

Garnet Dupuis: Coming back to the impact of music and culture, do you believe that to truly resonate with an audience, a piece should transcend its cultural confines?

Kristjan Järvi: Absolutely. While music is often a reflection of the culture it originates from, its true power lies in its universal appeal. Emotions are universal. Joy, sorrow, love, pain—they're felt by everyone, everywhere. True music speaks to the soul, bypassing cultural and linguistic barriers. That's what I aim for—to touch the soul, to evoke emotions, to connect on a level that goes beyond words and definitions.

Garnet Dupuis: It's a lofty ambition, to communicate and connect purely through sound.

Kristjan Järvi: It is, but isn't that the beauty of music? Its ability to transcend, to communicate without words, to touch lives, to bring them together. That's the magic I want to capture and share.

Garnet Dupuis: What's your main goal with music?



Kristjan Järvi: To make music a realm of feeling over meaning.

Garnet Dupuis: Does feeling lead to understanding? Can emotions guide us to awareness?

Kristjan Järvi: Meaning is subjective, varying from person to person. Feelings can unite us, but their interpretation is rooted in individual perception.

Garnet Dupuis: You spoke about involving orchestra members in the creative process. How is that different?

Kristjan Järvi: The goal is genuine creation without overthinking.

Garnet Dupuis: Like intuitive knowing?

Kristjan Järvi: Exactly. My band, the Baltic Sea Philharmonic, embodies this. It's one of the best ensembles I've ever formed.

Garnet Dupuis: Referring to an orchestra as a "band" is quite unconventional.

Kristjan Järvi: Most orchestras are structured like armies, led by a conductor. I wanted a more unified, intuitive approach.

Garnet Dupuis: How does this differ from other orchestra structures?

Kristjan Järvi: My orchestra brings together countries from the Baltic Sea, transcending national boundaries. The goal is unity.

Garnet Dupuis: Has anyone else tried such a concept?

Kristjan Järvi: There are similar endeavors, but ours is unique. We

initially started as a conventional orchestra but evolved, focusing on visualizing music and engaging audiences differently.

Garnet Dupuis: So, a more immersive experience?

Kristjan Järvi: Exactly. We aim for an experience that even those unfamiliar with classical music can engage and enjoy.

Garnet Dupuis: And this requires musicians to internalize, rather than just read music?

Kristjan Järvi: Yes, it's about becoming the music, understanding its structure, and working intuitively as a team.

Garnet Dupuis: It sounds transformative.

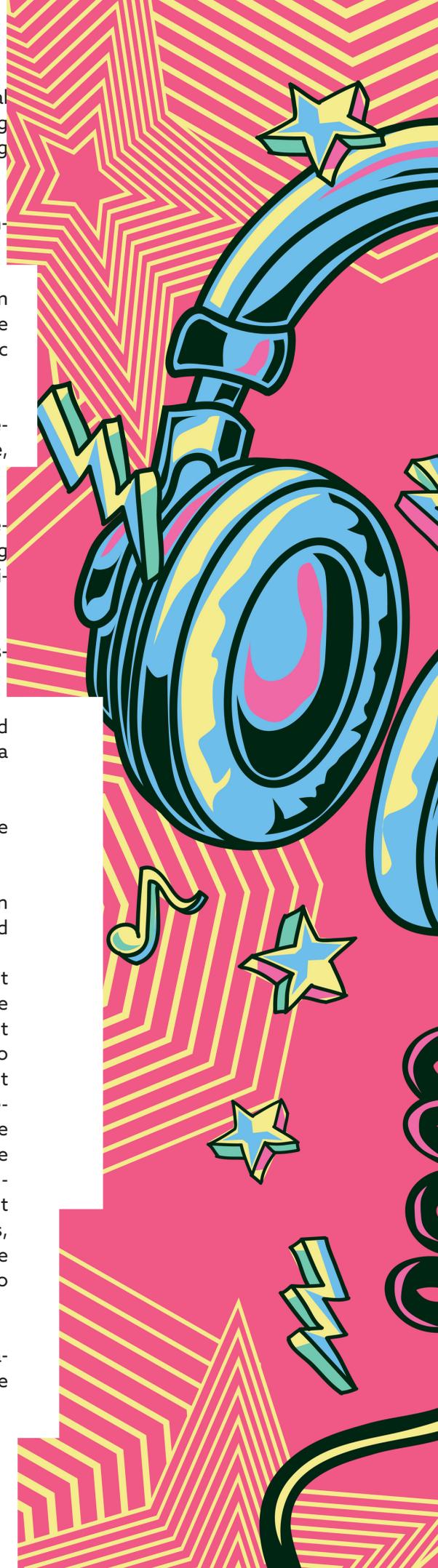
Kristjan Järvi: It is. We've moved beyond conventional orchestra logic, embracing intuition.

Garnet Dupuis: Is this reflective of your personal growth?

Kristjan Järvi: Absolutely. It's an embodiment of my evolution and perspective on music and life.

The intuition I had when I first created the Absolute Ensemble - I wasn't even able to explain it then. But now I realize that to truly comprehend life, one must recognize themselves as the creator. We're not just viewing the world through our eyes; we've created this entire world, including every person and object in it. This interconnectedness, this unified field, means that the most significant thing we can do is to give to one another.

Garnet Dupuis: So, this realization inspired you to reshape the





traditional orchestra?

Kristjan Järvi: Precisely. Our focus has shifted towards designing musical experiences that range from classics like the Nutcracker to more avant-garde, shamanistic pieces. We've even ventured into metal with our yet-to-be-released project, Bright and Black. Our music connects with nature and the universe. Take, for instance, our show 'Nordic Amazonia'. It merges the music of Philip Glass with elements from my album, 'Nordic Escapes'. It's a blend of North and South, connecting the hemispheres of our planet and our minds.

Garnet Dupuis: So, it's about uniting contrasts?

Kristjan Järvi: Yes, we're used to categorizing things as right or wrong, black or white. But we should be more like nature – where everything coexists in harmony. Our lives follow cycles, similar to the seasons. We're not just here to find life's meaning; we should be seeking the feelings it evokes.

Garnet Dupuis: Where does music fit in all of this for you?

Kristjan Järvi: If we consider ourselves creators of the universe, then music is our medium. Through it, we connect, share, and create mutual understanding. This transformational experience is what I wish for everyone.

Garnet Dupuis: So, this philosophy deeply influences your creative process with music?

Kristjan Järvi: Absolutely. Take the orchestra, for instance. We've transformed it into a space where

even a clarinet player is encouraged to compose, to experiment beyond their prescribed role. It's about expanding horizons, like our new project Estoniia AI.

Garnet Dupuis: Is improvisation a part of this transformation?

Kristjan Järvi: For the Baltic Sea Philharmonic, improvisation is encouraged. Our concerts are structured as journeys. Attendees leave having undergone a transformational experience.

Garnet Dupuis: Tell me more about Estoniia AI.

Kristjan Järvi: Estoniia AI is a reimagining of Estonia. Not just as a nation, but as a mystical land populated by magical creatures – the 'Estonians'. These creatures represent the suppressed child in all of us. While it originates in Estonia, it's a universal project aiming to redefine the future of feeling.

Garnet Dupuis: And it's accessible through your website?

Kristjan Järvi: Yes, you can find it at Estoniia, spelled with two I's, to represent this new vision.

At the heart of our discussions and explorations is the concept of the "natural state." This essence represents the intrinsic character and spirit of Estonia. In many ways, Estoniia shapes and moulds its inhabitants. As I see it, Estoniia plays the role of an inventor in the life of every Estonian, just as every individual has a role in moulding the identity and future of Estonia.

Garnet Dupuis: That's truly profound. For our readers and listeners who might be unfamiliar with this character or concept, I'd recom-

mend visiting Estoniia.Ai website. There, you'll encounter a representation that captures this spirit – a figure that's reminiscent of a captivating, hobbit-like character. This unique embodiment is what Kristjan alludes to in his narrative.

Kristjan Järvi: Indeed. What's fascinating is that many people around the world are often surprised to discover that Estonia has such a rich and distinct language and culture. We might not be positioned as a global economic powerhouse or a leading political entity on the world stage, but we have something unique to offer. The concept of the "electronic mushroom" metaphorically represents our gift to the world. It's an invitation to tap into one's inner child, to reconnect with one's authentic self, and to truly realize one's potential. It encourages a fresh perspective, a new lens through which we can see the world in its purest form. Our collaboration, Garnet, is a testament to this. Through your work, you don't merely visualize music in a traditional sense. Instead, you offer an immersive experience that allows each individual to shape and direct their own narrative journey.

Garnet Dupuis: That's an insightful way to put it. It's the realization that our perceptions and narratives are not limited to the external world. The true canvas is our mind, and we all possess the innate ability to craft, shape, and direct our own realities.

Kristjan Järvi: Absolutely, Garnet. Our explorations with cutting-edge technologies, such as the NeuroVizr™, are attempts to delve deeper into this world, to harness this potential and offer transformative experiences.

Garnet Dupuis: Your vision, Kristjan, is both inspiring and revolutionary. What stands out is your unique, almost shamanistic approach to music. You've taken a traditional setup—an orchestra of 70 members—and infused it with a contemporary spirit, transforming it into what can best be described as a dynamic band.

Kristjan Järvi: That transformation was intentional. The idea was to transcend the confines of traditional orchestral setups and to bring in the vibrancy and energy of a band. While orchestras have their unique charm, I believe there's a need for evolution, for fresh approaches. My

ultimate dream is to see our music resonate on a larger scale—to witness our ensemble fill not just concert halls but entire stadiums with our sound. For those who are keen to delve deeper, the Baltic Sea Philharmonic's website offers a plethora of information and resources.

Garnet Dupuis: We'll add some relevant links, including those to Estoniia AI (<https://www.estoniia.ai/>) and the Baltic Sea Philharmonic (<https://baltic-sea-philharmonic.eu/en>). Kristjan, your journey in music and your dedication to redefining its boundaries have been nothing short of inspiring. There's a wealth of information and insights about your trajectory available online, offering everyone an opportunity to understand your musical philosophy better.

Kristjan Järvi: Thank you, Garnet. Music is an ever-evolving journey, and I invite everyone to join us in this exploration. Together, we can push boundaries, redefine norms, and immerse ourselves in transformative musical experiences.

Garnet Dupuis: Thank you my dear friend.



About Kristjan Järvi



Kristjan Järvi lives and breathes music, using its power to create spaces in which anything is possible. Kristjan Järvi pursues his pioneering ideas as a conductor, producer, composer and arranger. Embracing everything with creative entrepreneurship. He runs his own production company Sunbeam Productions.

'Kristjan Järvi has earned a reputation as one of the canniest, and most innovative, programmers on the classical scene' (Reuters). As a conductor, he is at home on the big international stages, directing great classics from Wagner to Tchaikovsky and from Steve Reich to Radiohead as well as his original productions without any genre boundaries.

Kristjan Järvi developed his own unique sound with his New York based, classical-hip-hop jazz group Absolute Ensemble, Baltic Sea Philharmonic, and Sunbeam's in-house Band 'Nordic Pulse'. Furthermore, he has established the Estonian Film Orchestra, which regularly records soundtracks for major international films and series in his state-of-the-art studios, owing to its exceptional sonic qualities. Kristjan shapes his artistic life and takes expression to the next level with his team of 'Sunbeam Productions', with whom he creates a new paradigm for multi-sensory performance Xperiences.

In 2020 Kristjan "nEscapes," an innovative record label. Besides online music distribution it offers its own unique "nEscapes Lounges" as a new listening format. His latest and biggest endeavor is the launch and development of "ESTONIIA", a digital AI muse that is created to shape your personal surroundings and make sense of things for you. Estonia is not just another app; it's a tool for self-creation.

Besides his own productions, Kristjan Järvi collaborates internationally with outstanding artists like director Tom Tykwer (for the soundtrack of Babylon Berlin) and recording artists like MUM, Bryce Dessner (The National), Hauschka, Robot Koch and Max Richter and is starring in the "Bastille Re-Orchestrated" Documentary on Amazon Prime at the moment.

In the second half of 2023 he will be producing the live shows of the series "Babylon Berlin" in collaboration with X Filme, BMG and ARD Degeto and is orchestrating and Conducting Brian Eno's SHIPS tour throughout Europe with his Baltic Sea Philharmonic.

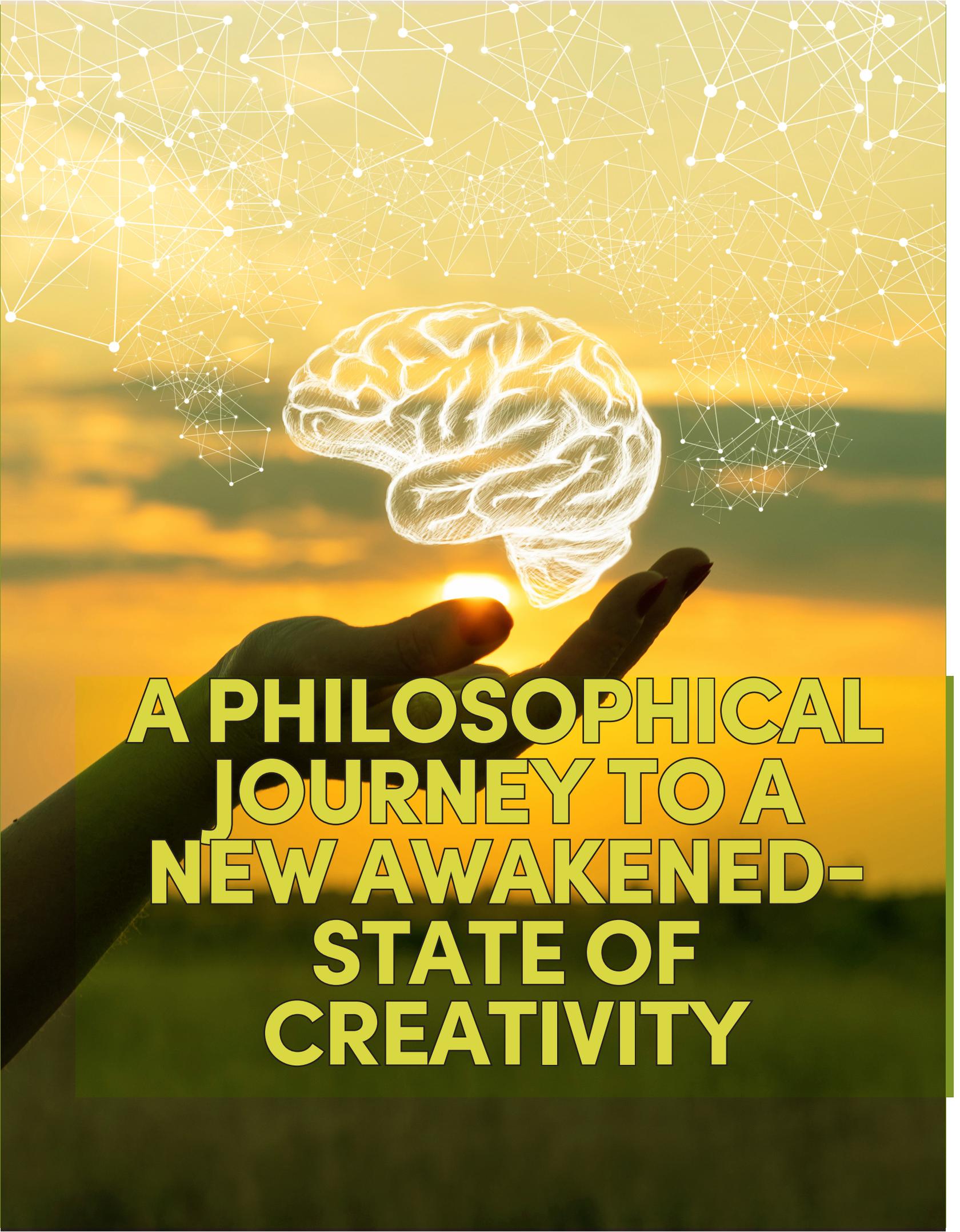
Kristjan is exclusively signed as a composer and producer with BMG Music under its label "Modern recordings". His latest album is called: Nordic Escapes

<https://kristjanjarvi.com/>

<https://www.estoniia.ai/en>

<https://baltic-sea-philharmonic.eu/en>

IG: [@kristjanjarvi](https://www.instagram.com/kristjanjarvi)



**A PHILOSOPHICAL
JOURNEY TO A
NEW AWAKENED-
STATE OF
CREATIVITY**

Garnet Dupuis: Today, it is my delight to spend time with Luis. We've had the privilege of private conversations before, and I've candidly expressed to him that, despite our limited in-person interactions, I sense a deep and warm kinship between us. So, Luis, I extend a heartfelt welcome to you, and I am deeply grateful for your willingness to take the time to join us here. Thank you.

Luis Eduardo Luna: Thank you very much for inviting me, Garnet. It's a privilege.

Garnet Dupuis: Today's starting point is the concept of expanding consciousness. It's a focused topic, yet incredibly broad. I don't have a set perspective, and I trust that the topic will naturally unfold as we converse. First and foremost, while your bio is attached for our audience to read, could you briefly introduce who you are, what your interests are, and where you currently stand in your life?

Luis Eduardo Luna: Certainly. I was born in the Colombian Amazon. My parents sent me to Bogota to study when I was around 12 years old. At one point, my mother aspired for me to become a priest.

Garnet Dupuis: A familiar aspiration for many mothers - either a priest or a doctor, but often a priest tops the list!

Luis Eduardo Luna: Exactly, right? Eventually, my path led me to Spain. I studied philosophy and one year of theology in Irache, near Pamplona, and Albel-da de Iregua, in La Rioja, northern Spain. However, I later shifted my focus to Madrid to study philoso-

phy and literature. During a holiday back in Colombia, something pivotal happened. I met Terence McKenna, and we connected deeply over discussions about consciousness, spurred on by our experiences with Amazonian plants. This chance meeting changed the trajectory of my life.

Garnet Dupuis: What year was that memorable encounter, Luis?

Luis Eduardo Luna: In 1971, my curiosity for philosophy was burgeoning, with a deep interest in life's big questions. However, I had no idea about the possibilities of expanding or changing consciousness. That year, I had my very first transformative experiences, starting with what Terence referred to as 'Santa Marta Gold' - which turned out to be an

especially strong variety of cannabis. When I tried it, the experience was, to me, genuinely mystical.

That experience felt like the discovery of an entirely different realm. During Franco's regime, I went to Spain, where leftist ideologies were the only path that made sense to me. I delved into reading Marx and Althusser, as well as other books forbidden in Spain at the time. This phase had me leaning towards becoming a staunch activist.

But then, that enlightening experience with cannabis rekindled my sense of wonder and drew me back into contemplating the grand mysteries - the existence of consciousness and the profound enigma of life itself.

I first encountered yajé (closely related to ayahuasca but with a different admixture plant) through



European acquaintances. It was intriguing because this brew was prepared by an indigenous shaman I had known since childhood. As a child, I was always curious and fascinated by the indigenous people.

In fact, when people asked young me what I wanted to be when I grew up, I would answer, "I want to be a foreigner." I wanted to converse with people from different backgrounds. I was fortunate to already be fluent in English at that time.

This path eventually led me to have a transformative experience with Terence.

This led to a significant shift in my interests. While I initially harboured aspirations of becoming a writer and was passionate about philosophy and poetry, these experiences steered me towards anthropology. I became increasingly engrossed in learning about indigenous peoples' use of sacred medicinal plants.

Garnet Dupuis: Fascinating. And since then, you've dedicated yourself to studying the relation-

ship between these sacred plants and human consciousness.

Luis Eduardo Luna: Absolutely. That meeting ignited my curiosity and introduced me to the profound mysteries of human existence and consciousness. It was like stepping into a larger universe.

Garnet Dupuis: Allow me to express something. I believe I recognize your invaluable contributions. I often tell people you are among the guiding lights in understanding the indigenous use of psychedelic compounds. I know you have an extensive academic background and have remained a steadfast and insightful resource in this community. I see you as a patriarch of this realm. Would you agree with that characterization, or how would you describe your role?

Luis Eduardo Luna: Well, I consider myself more of a second generation in this field. I was fortunate enough to meet

some of the great pioneers in the West—people like Richard Schultes, who is regarded as the father of modern ethnobotany, and Michael Harner, Alexander Shulgin, and Albert Hoffman. I've had the incredible luck to meet these people. They became my heroes. So, I view myself as following in their footsteps as part of the second generation, especially as I also had the opportunity to meet some of the older shamans.

Garnet Dupuis: What about Jeremy Narby, a fellow Canadian like me? He's also contributing to this field, right?

Luis Eduardo Luna: Jeremy, yes, although he is of a younger generation, he is indeed contributing significantly.

Garnet Dupuis: For context, Luis and I are in our mid-seventies. We have gathered around many a campfire, so to speak. Your unique perspective partly inspired me to invite you here today. You have



maintained a home on an island off Brazil's coast and are currently in Helsinki while I am in Thailand. You remain extensively engaged with the world. Reflecting on the past 50 years, what stands out most positively for you? Concurrently, do you hold any particular concerns or cautions?

Luis Eduardo Luna: For me, the journey has been a gradual, profound awakening to the reality of animism—the perception of the world as being alive and intelligent. This includes everything—intelligent plants, the earth, all of it. Initially, I observed this perspective from the outside, but I have become increasingly emotionally and intellectually engaged with this worldview over time. We are just one species among millions on this planet. Over the years, I've grown to respect and appreciate the immense privilege of existing on this extraordinary planet, amidst what indigenous peoples often refer to as non-human persons.

Garnet Dupuis: A beautiful phrase, 'non-human persons.'

Luis Eduardo Luna: Exactly. Now, this isn't merely an intellectual discourse for me; it is a lived certainty that we are amidst intelligence everywhere we look.

Garnet Dupuis: You are quite the transcultural person. You maintain your home in South America but travel extensively. How does your animistic perspective fare across different cultures? And given your connection to nature, do you have a preference between living in urban and natural environments?

Luis Eduardo Luna: I feel most at home on my island in Southern Brazil. Here, my wife and I

are nurturing an ethnobotanical garden with over four hundred species of plants. My time is divided between my books and my plants—a fulfilling combination. My mission, as I see it, is to encourage people to connect with nature, wherever they are. We are living amidst a profound crisis—a disconnection from the living world—and I believe we can begin to heal this rift anywhere we find ourselves, as nature is resilient and omnipresent.

Garnet Dupuis: On a related note, some time ago, we discussed your growing interest in the nature of dreams, the natural states of consciousness we all experience. Aside from your well-documented perspective on psychedelics, what are your thoughts on the mind's inherent ability to shift into various states, the 'natural psychedelic brain,' if you will?

Luis Eduardo Luna: Yes, in a way, we all become shamans each night in our dreams. Our ability to recall and engage with these nocturnal journeys is the challenge. In many traditional societies, dreams hold great significance. I believe that the psychedelic space and the dream world are deeply interconnected—two manifestations of the same profound reality. Our dreams offer us a space where we travel freely through the universe, a truly psychedelic experience.

Garnet Dupuis: Luis, with your permission, I would love to quote that—"we are shamans every night." It's profoundly insightful. Thank you.

Luis Eduardo Luna: Absolutely, feel free to share that perspective. It's about reconnecting with that



nightly voyage, relearning the art of dreaming consciously and vividly, which is something highly valued in various cultures. This is another crucial aspect of our human experience that we often overlook in the modern world.

Garnet Dupuis: That serves as a perfect segue into the next area I'd like to explore with you about dreaming. I've written about my stance on this and am eager to hear your perspective. Broadly speaking, we could say we have two states: being awake and being asleep. In the sleep state, we have sleeping dreams; in the waking state, we have opportunities for what I'll term 'waking dreams.' I've been paying much attention to what the yogic tradition calls the 'fourth state'—the transitional state, or what Tibetans refer to as a 'bardo,' that we move through as we transition from wakefulness to sleep (hypnagogic) and from sleep to wakefulness (hypnopompic). My experience suggests that through deep conscious relaxation in the waking state, we can choose to enter this 'waking dream.' What are your thoughts on these waking dreams and these transitional states?

Luis Eduardo Luna: Firstly, a comment on the second transition, the (hypnagogic) state, as you call it. That's a state I experience every night. My mental landscape comes alive; it's populated and animated. The beings in this state come dancing, consistently present, and always welcome. Now, as for waking dreams, I'm less adept. I believe we are dreaming all the time, in a sense. Our waking life often feels surreal because most of our time, mentally speaking, is spent elsewhere.

At this moment, as we are talking, I feel more present here than elsewhere. But usually, when no activity anchors me to this world, my mind is wandering, imagining.

Garnet Dupuis: It's impressive that you recognize and appreciate these shifts in consciousness. I believe one of the most crucial skills is the ability to experience deep conscious relaxation, which, in my experience, serves as a gateway to extraordinary experiences, though it may not be the ultimate goal. What are your thoughts on deep conscious relaxation? Do you feel we've forgotten how to practice it?

Luis Eduardo Luna: In the West, we often overlook this. Our society constantly pushes us towards material pursuits and external distractions. We rarely make time to turn inward and offer space to that quieter, more reflective state. We are constantly drawn outward and don't give time to that space. We don't give space to that time, let's say.

Garnet Dupuis: „We don't give time to the space. We don't give space to this time.“ That's another quote. You've spent considerable time with indigenous peoples, not as a tourist, but in a more meaningful way. Do you think they have a different relationship with relaxation and presence, or are they fundamentally similar?

Luis Eduardo Luna: The elders I have encountered are not in a rush. They live contentedly, not constantly yearning for more. They are calm, thoughtful, and relaxed. They are much more grounded than we typically are





in the modern world, in part because their lifestyles are not centered on accumulation.

Garnet Dupuis: Has their way of life influenced you?

Luis Eduardo Luna: Absolutely, and enormously. They've taught me to be attentive to the living world—the trees, plants, smells, and sounds. My best moments are now simple, like walking through a Finnish forest and being present.

Garnet Dupuis: This interview will appear in Biohackers Magazine. The biohacking community, which is evolving towards an interest in consciousness, uses terms like optimization and resilience. From your perspective, do you have any advice for this community?

Luis Eduardo Luna: While I am not extensively familiar with this community, I would advise reconnecting with nature as much as possible. Embrace the simplicity of relaxing your mind, and attune yourself to the natural world—the rustle of leaves, the fragrance of the earth, the song of the birds.

Garnet Dupuis: There exists a simplified yet widespread perspective, which can be roughly described as follows: we have an experience, which we often refer to as 'nature,' that encompasses the whispers of the leaves and our intrinsic connection to this natural world, acknowledging that we are part of nature ourselves. Then, in contrast, there is this entity we label as 'technology.' I work with technology and am striving to align myself with what I term 'biophilic technology'—life-affirming technology that enhances our living experience. This is in stark contrast to technology that could

be deemed life-averse, or 'phobic,' to use the opposite term. What are your thoughts on this? What is your stance on the role of technology in our lives?

Luis Eduardo Luna: My engagement with technology is largely limited to computers, which facilitate communication like this. I was intrigued by your NeuroVizr™ device. It's extraordinary that certain stimuli can provoke such vivid mental responses, mirroring the effects of chemical substances, though I wouldn't like to reduce these states to mere molecular interactions.

Garnet Dupuis: I'm deeply intrigued by the phenomenon of music. I believe that music is not merely the sound we hear, but the emotional response it evokes within us. Our brains translate simple vibrations into profound, emotional states. Does music hold a significant place in your life?

Luis Eduardo Luna: In my day-to-day, I don't listen to music frequently. However, when I participate in ayahuasca ceremonies, which were more frequent in the past, music becomes a central, transformative part of the experience. In those moments, the music is profoundly synesthetic. My focus is incredibly sharp when I'm working. For example, while some people can write with music playing in the background, I find that impossible. The music draws me in, captivating my attention, and I find myself wanting to actively listen to it rather than write. I simply can't multitask in that way.

Garnet Dupuis: That's fascinating. In the context of psychedelic-assisted therapy, music is often considered a critical component.





From my own psychedelic experiences, I still vividly remember how music became a visual, living entity in my mind. With evolving technology, I aim to integrate this colorful, geometric dimension into sound, inspired by my meditative experiences under various spiritual teachings.

Partly due to my profound meditative experiences, I have devoted my adult life to spiritual practice. I began with dedicated study under a Hindu guru, then learned from a Korean Taoist teacher, and for the last 25 to 30 years, I have been immersed in a Tibetan Dzogchen tradition. These practices are not just a source of personal enrichment for me but integral to my existence. They have led me to profound, indescribable, yet deeply meaningful experiences that I believe are central to genuine healing, this is a significant reason why I remain highly engaged with current developments in our community, particularly concerning psychedelics, music, and emerging light technologies. To illustrate, before the invention of the saxophone, there was no saxophone music, and I perceive that we are currently on the cusp of a similar transformation with light technology. It seems we are nearing a time when technology will manipulate light in ways akin to how instruments manipulate sound. This prospect excites me, as I envision a form of 'light music' unfolding in our future—a harmonic integration of light and sound, as spoken of by mystics who frequently reference the profound impact of luminous, colorful experiences.

Luis Eduardo Luna: That sounds captivating. Your device seems like something I should explore.

Garnet Dupuis: Luis, I would be delighted to offer you our latest model and access to our library of experiments. It would be an honor for me to have you engage with it.

Luis Eduardo Luna: Thank you, sincerely.

Garnet Dupuis: As we wrap up, I'd like to ask: what drives you? What keeps you motivated and optimistic in your life?

Luis Eduardo Luna: Above all, it's creativity that fuels me.

Garnet Dupuis: That resonates deeply with me. Creativity seems divine in the way it inspires and moves us. It's a profound process.

Luis Eduardo Luna: Absolutely. My daily life revolves around my garden and my library – constantly devising new ideas for these spaces. I am continually engaged in my project, Wasiwaska, in southern Brazil.

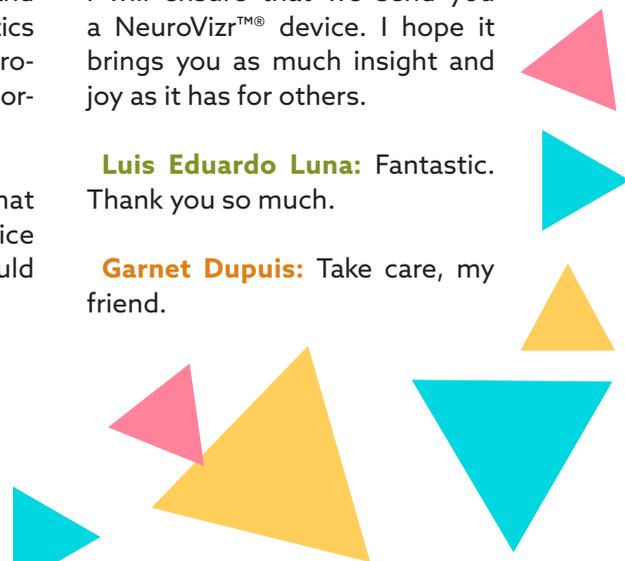
Garnet Dupuis: Your dedication to your path is clear, and speaking with you has been an honor. I wish you continued inspiration and joy in all your pursuits.

Luis Eduardo Luna: Thank you, Garnet. It was a great pleasure to have this conversation with you.

Garnet Dupuis: Before we part, I will ensure that we send you a NeuroVizr™ device. I hope it brings you as much insight and joy as it has for others.

Luis Eduardo Luna: Fantastic. Thank you so much.

Garnet Dupuis: Take care, my friend.



Luis Eduardo Luna



*Luis Eduardo Luna was born in Florencia, Colombia, in 1947. He has a B.A. from Universidad Complutense de Madrid (1972), an interdisciplinary Master from Oslo University (1980), and a Ph.D. from the Department of Comparative Religion Stockholm University (1989). He received a Fellowship of the John Simon Guggenheim Memorial Foundation, appointed for a study of the ethnobotany and ethnomedicine of the Colombian and Peruvian Amazon (1986), and the title Doctor of Humane Letters, Honoris Causa, from St. Lawrence, Canton, New York (2002). He was an associate of the Botanical Museum of Harvard University (1987) and was elected Fellow of the Linnaean Society of London (1989). He was an Assistant Professor in Anthropology (1994-1998) at the Department of Anthropology of Santa Catarina Federal University (UFSC) in Florianópolis, Brazil. He retired in 2011 from the Department of Modern Language and Communication at the Hanken School of Economics, Helsinki. Besides numerous publications in various journals, Dr. Luna is the author of *Vegetalismo: Shamanism among the Mestizo Population of the Peruvian Amazon* (1986), a co-author with Pablo Amaringo of *Ayahuasca Visions: The Religious Iconography of a Peruvian Shaman* (1991), and co-author with Slawek Wojtowicz, Rick Strassman and Ede Frecska of *Inner Paths to Outer Space: Journeys Through Psychedelics and Other Spiritual Technologies* (2008). He is also a co-editor with Steven White of *Ayahuasca Reader: Encounters with the Amazon's Sacred Vine* (2000, enlarged second edition 2016). Dr. Luna has lectured worldwide on indigenous and mestizo shamanism and has been a curator of visionary art exhibits in Europe, Latin America, the United States, and Japan. He is the Director of Wasiwaska, Research Center for the Study of Psycho-integrator Plants, Visionary Art and Consciousness, Florianópolis, Brazil (www.wasiwaska.org). From June 2022 he is also an Honorary Research Fellow of University of Exeter, England.*

<https://www.wasiwaska.org/>



EXCLUSIVE INTERVIEW

GARNET DUPUIS

**CO-FOUNDER OF LUCID STUDIOS,
CREATOR OF BRAIN ENGAGEMENT
DEVICE - NEUROVIZR™, PROMINENT
SPEAKER, BIOHACKER &
INTEGRATIVE HEALTH EXPERT**



**Listen to this conversation on our podcast by scanning this QR code or clicking here*

Hello everyone. This is Dallas McClain from Biohackers Magazine. I'm here with Garnet Dupuis, again from Lucid Studios, the man in action behind e-psychedelics and the NeuroVizr™, the change maker. He was recently on one of our last deluxe editions, talking all about waking dreams, the psychedelic-like technology that really drives creativity, brain engagement as opposed to brain entrain-

ment. We also discussed neuroplastic change, the formula that really drives optimal brain growth. So, Garnet, we're so happy to have you here with us again today, and I know we're going to have an insightful conversation like last time. Welcome.

Well, it's a big thank you here from Thailand, and I am the guy in the lucky seat with yourself and your team, including Jean. So, I don't know if my radiant smile is evident right now, but I'm happy to be with you.

Great. Yeah, we're happy to have you. So I want to get into a little bit of what we talked about last time and to bring this up for people that may be listening (or reading) to this concept for the first time. You had a history with psychedelics, somewhat studying them and somewhat experiencing them, and you came to this sort of realization that the brain tends to predict what's going to happen based on experiences; and that there was a way to tap into this process of how the brain does this with the patterns and recognizing the patterns through light and music and all of these types of things. So you thought you could create a piece of technology that could help engage the brain in this pathway, which opens up new creative neuroplasticity and new changes. Is that somewhat correct on what I'm describing there? And can you expand on that?

Yeah, it's correct. I'm impressed that you've got all the right words. That sounds pretty good. To expand a bit, I think society's pulse in terms of evolution and trend, is affected by a lot of things. All of us are not only members of our society, we're also the generators of society and also the products of society. The concept

of individualism is a fascinating one. And yet I think as an animal, we, humans are certainly social. We're group animals. When I look at the rhythms as best as I can, we won't go into history, but now there is an increased sincere interest in consciousness.

If you're a tenured professor, not that long ago, you wouldn't risk your position by wanting to study consciousness academically or scientifically. And now the studies are exploding and have been for roughly that last 10 years or so. So something has happened. Most evidently these days, there's a lot of social awareness with psychedelics again, that are moving into a legitimate area of study and medicalization. I was born in Canada, a US citizen and have lived around the world, I'm here in Thailand now. Canada now has federally legalized recreational cannabis, weed, marijuana. And hey, guess what? I'm in Thailand. We did it here too. So, you know, these are examples of a social movement. So I'm saying this because, as I say, I'm both a generator and a product of the society in which I live.

I think when you travel to foreign countries, the country you learn most about is your own, because you now have some kind of comparison so that you realize that your parent culture is not the only way that culture expresses itself. So you go someplace else. Oh, it's different. Right now, to me, this is a time when we get to examine meaning and consciousness in a social environment that is supportive of that. Also now I think we are seeing people take their spirituality at a level of sincerity that would be equal to a devout person in a religion. And there are those of us that are re-appreciating traditional religious motifs. There's a kind of honesty about consciousness that I think is ripening in our time.





Yes, I think you're right about that shifting of focus. What about psychedelics and their part in all this? Could you please tell me about your past psychedelic experiences?

I had very good psychedelic experiences earlier in my life. I loved it and never had an overtly negative experience. Then, life goes on. I made a decision to try my best using classic systems, first Hindu and then a Daoist. Then for the majority half of my life, a Tibetan Dzogchen. It wasn't popular in the past. So it comes down to, what do we do? We got jobs, we have to eat and sleep, and most of us have families, - how do we do it? Against a backdrop where most of our lives are pretty busy; urban lifestyle is busy.

So, when I look at the traditional or the classic systems of spirituality, of consciousness and healing, we don't have a lot of time. We don't have a lot of time during the day, and we don't have a lot of time, generally speaking in our life. I haven't done for a while, but I would go off and do 1, 2, 3 month long solitary mountain meditation retreats under certain teachers. And it was considered radical that a person would take off that chunk of time from their responsibilities and their job to go and meditate. And by the way, it's not like all twinkling stars and singing birds. It's sometimes like climbing a mountain naked. It's not easy to do these retreats. As matter of fact, after the retreat, you think, I think I need a vacation.

I have a sustained interest in doing good, and helping others as I learned to help myself. There is this understanding that we are time crunched. We have a lot of evolving technology. I'm a fan of technology, but not all technology. I'll label what I'm attracted to as biophilic technology. Fillic,

philia, love, life loving, life supporting life enhancing technology. There's biophilic and then there's biophobic.

There's a lot of technology out there that is garbage. We have to be careful, but that doesn't mean that we throw the baby out with the bath water. Right now we're engaged with each other because of technology. So, I think we don't have a lot of time. We've got a lot of technology. Now we're able to resource a lot of traditional wisdom, but we're also studying our asses off at a scientific level, at an academic level, not just a corporate level, like a pharmaceutical wanting to develop a product that we can sell. But we're also wanting to understand.

When you ask most people if they want to live a long life, they say yes. And then you say, do you know statistically that in industrialized countries, not like Third World, between 80 and 85 years old, which is a reasonable target for longevity these days, the statistics are about 50-50 to either be with or without dementia. So, hey, do you want to live into your eighties? Well, yeah. And would you like to be healthy? Well, duh. So we put all this attention on our somatic health, and it's a game. Your body changes. But then the issue is, well, what about your coconut?

Even if you have a vital, relatively healthy body, you can't lift big weights anymore and all that, but you're still active and quite comfortable, what about your state of consciousness? If anybody's paying any attention at all, in advanced age, there is a serious risk of cognitive decline, even at a pathological level, dementia and Alzheimer's. The wisdom of, not wanting to improve yourself in a self-saturated sense, but

wanting to be a good person and wanting to refine consciousness is a luxury that we have.

But unfortunately, it's within very stiff constraints. So how can we do it? All of that keeps me motivated. That's why this particular technology right now, best known as the NeuroVizr™, is a meaningful project for me. One, because it's tremendous fun and I like having fun. And most importantly, it's productive fun. It's the kind of fun that gives, instead of takes away from you because you can have fun, but then you pay for it. In this case, it's the kind of fun where you get returns. What is fun? Mental conscious exploration, music, gorgeous light displays. All of these things are fun.

I was raised Roman Catholic, French Canadian, quite devout. I thought I was going to be a priest, because I didn't know what other avenue there was. Then I entered university in the late sixties, so if anybody has ever heard about it, sex, drug, rock and roll, that's pretty much it. Then there was access to psychedelics. What psychedelics gave me was proof, personal proof, that there was a whole lot more in my head space to use the term at the time than I thought. Then I became more exposed to classic or traditional, yogic processes. So I've got nothing against psychedelics. I think psychedelics are amazing. I don't really use much anymore. I don't really feel much inclined, although, because of the work I do, I've been experimenting more with microdosing.

But the thing that interests me at this point, is what I'll call psychoactive agents - Agents that will activate the inborn aspects of consciousness. In this case, all psychedelic compounds are psychoactive agents, but not all psychoactive agents are psyche-

delic compounds. I like working with principles. There is a universal or fundamental psychoactive agent, one that is at the basis of everything else, and I think I know what it is. I believe that the universal psychoactive agent is focused attention,

I think focused attention is some kind of magical, energetic force. I don't know why it does what it does. **But the innate agency of any psychoactive process is that it involves focused attention,**

bringing the mind, or whatever that is, into a point where it gifts this other elements with some kind of special action. In Pranayamas, mainly out of a Hindu yogic tradition, but also a lot of Chinese Daoist traditions, there's a lot of working with the breath. Okay, here you have your breath, let's call it your common breath, your gross breath. You're breathing right now. I'm breathing right now. How do we enliven, how do we transform our common breath into psychic breath?





I'm just choosing that word, psychic breath. It's remarkably easy, but it is profound when you consider it to turn common breath into psychic breath. You pay attention to the breathing. You focus your attention into this fundamental activity that we call breathing. And when you take your breath and you attend to your breath, now something dimensionally additive has happened. Something has been engaged so that now its effect is functional for certain activities. So that's my thing these days is detecting psychoactive agency, psychoactive agents. For me, that opens up a massive door of not only new discovery, but kind of rediscovery of things that we recognize to be effective and meaningful, but we didn't quite consider them that way.

Yeah. That term has a ring to it, Psychoactive Agent. For me, I go back to philosophy a lot of times when people use words that I'm not familiar with, and Socrates and Aristotle liked to get to the basis of any argument with defining the term. With psycho psychoactives, how would you describe them and their meaning?

Yeah, you can use a psychoactive agents in one of two ways. I'm taking a risk here because it's maybe an oversimplification. We either use the psychoactive agent to refine our awareness or we use psychoactive agents to learn how to magically manipulate things.

So would both of those be utilitarian?

Well, I think the second one is more self-serving, lowercase S, self-serving. And the first one, the refining awareness is more capital S self-serving. Anyway, what I note is that there are lots of ways of magically manipulating the subtle elements. I respect magical thinking. I respect that there are ways to make your life better and the lives of others better by bringing things into actuality that are needed. That's very good. I am stubborn and that's good and bad. I'm more inclined have the desire of refining awareness than to get reality to be the way I would like it to be. So, when I do the work that I do, in this case, through the NeuroVizr™ project, which is going quite well, I tried to understand what works and then make sure that what it works for is as positive as possible.

Because I've had people have a reaction to the NeuroVizr™ saying that this could be used for mind control. I thought, well, yeah, but that's not really the motivation or point. For example, fire is really good to keep you warm and cook your food, but it's really bad to stick your hand in. This is the issue of ethics, and I don't want to take the conversation sideways but we have a lot of talk about intention. I think, at a more fundamental level than intention, is motivation.

I used this example before. It's dumb. I'll make it short. There's a course on online banking, and there are two people that sign up for the course, and they both want to learn all about online banking. What's their intention? I want to learn all about online banking. However, motivation asks the question, why? So going back to this little micro class of two people on online banking, it turns out one is a young woman from an undeveloped society,



and she wants to learn all about it so that she can help other women get funding for micro projects to improve their life in the village. That's what she wants to do. The other person is there because they want to learn how to steal online from people's banking accounts, and they need to know all about online banking to do that. So the why, is to me the kind of the secret sauce in that activity. The why is intimately associated with the what.

Right. The 'why' connects with the people that are willing to try out the process. They are willing to follow you in a way. They connect with you more on that why-motivating-factor rather than what the device is or what it can do.

Yeah. My business partner, Christian Barman and I wrote a paper called 'Entertainment for a Change'. We've arrived at a perception or a belief that right now the most direct way to engaging people in positive cognitive processes is through entertainment. High on the list of people's needs is safe, short-term access to relieving experiences. We all have an appetite for good feelings. And it really stands out when you experience a lot of bad feelings, Enjoyment is a massive effector in new learning and growth. **When you do a neuroplastic method, if that methodology creates that complex neurochemical state called joy, then it works better.**

The surprise is also a critical core element of the adaptive process; Knowing how to let go, because that's what surprise kind of does. It pops you out of your expectation; you didn't see that coming. That is something that we can use in a positive way. That's what I do with the light-sound processes. I do my best to reflect the cognitive

process of attention and discovery. It is so far away from brain entrainment, which is very good for what it does.

Brain Entrainment is a top-down process. It reinforces patterning. It's very low on neuroplastic adaptability because there's not really anything exciting in it that provokes change. So this issue of knowing how to put together the subjectivity of experience and the objectivity of things like neurological processes, gives us a huge advantage, and we call this brain engagement. I think our brain is naturally psychedelic. What I mean by that is that our brain is fully capable of moving out of a common ordered state into a temporary state of low order or high entropy, and then returning back again to the ordered state. It is so fundamental that it's built into our circadian cycle. **Every 24 hours, we have to go a little crazy. And if we don't, we'll go insane.**

One of the interviews that I'm happy to introduce into your magazine September Spotlight Magazine, is with I Luis Luna, one of the patriarchs in indigenous psychedelic use. He's holds a PhD and is highly educated. He said to me: "Each of us becomes a shaman every night when we dream."

This highlights the issue that it is not only normative, it is actually mandatory that our brain have these experiences. We talk about neuroplasticity as the ability of the brain to change in positive ways. I want to introduce a new use of a term. It's called neuro elastic. There's neuroplastic and neuro elastic. So plastic means that you can change the shape of something into a new shape, and it stays that way. That's why you can mold plastic. Plastic is a old Greek term, meaning change shape, stay there. But also we have to have neuroelasticity to

be able to move in and out of a range of cognitive states. That's healthy. If you get stuck in the dream, that's bad. And if you get stuck in the waking rationalization, that's bad.

The stuck-ness is the issue. So our brain has not only the ability as an adult to change in positive ways and stay there, but it also has the innate characteristic of being neuroelastic, which means you can go in and out like an elastic band. So you can go from waking into sleep, from sleeping into dreams, dreams back into hypnopompic, hypnopompic into waking state, then hypnagogic, the so-called waking dreams that we talked about last time. It's not like our brain knows how to do it. It is made to behave like this. So, as well as positive neuroplastic qualities, we also have this elasticity of being able to move in and come out. It's like free range chickens; we don't want to be put



in a pen and stay there. Our brain has the innate ability to move creatively, biologically, in and out of a kind of a continuum of different aspects, different states, and that's healthy. One of the things that I try to do with light and sound signaling is to help exercise the brain to do that.

Let's use an example of physical exercise. Let's say back bends. If I never do a backend and I have to do a backbend, that's going to be a problem. I'm going to need help. I'm going to get halfway over. I'm going to fall down. Why, because I don't do it. Now if I did a back bend a little bit every day, right there is that neuroplastic shaping, however, more important than the neuroplastic shaping is that fluidity in cognition, in awareness, consciousness. We want to be able to move in and out of all these states of consciousness.

These days, I think there's a little bit of an over exaggeration on flow states. Flow states by their very nature are time bound. You can't live in a flow state, otherwise it's not flow. It's just living. You cannot have flow states without friction states. Friction and flow are that yin and yang. One is related to the other. Without one, you don't have the other. That's why this concept of the four stages of flow, struggle followed by resolve, then flow and then release, now the neurology is characterized by these sequences of things that flow has a relationship to among other things, of course, focused attention. My interest in my effort is to see as much as we can because it's not a solitary exploration. What's the natural dynamics of the brain as a complex adaptive system? I think understanding not only the neuroplastic ability to create new states, but that those new states are not static states is essential.

If you really examine it, the waking state is not one state. You have all these emotional fluctuations and degrees of concentration, certain discomforts and then rewards. Your day has been a rolling terrain of a variety of states. **To be adaptive, you've got to be able to flow, to smoothly transition in what I'm labeling now, as neuroelasticity.** Technically it's hardly ever used, but when you talk about neuroplasticity, it changes into something. Technically neuroelasticity means, that if you don't keep reinforcing the brain's ability to adapt and change, it will reverse back to where it was before. So the technical definition of neuroelastic is reversible. The more simple phrase is to use it or lose it. So you can make new positive change with neuroplastic processes. However, if you don't utilize it and if you don't reinforce that new state or change bit by bit in the neuroelastic sense, then the neuroplastic process will reverse itself back to its previous state because it's not being reinforced.

To come back to Entrainment vs Engagement. Brain engagement is a bottom-up motivator for change. Brain entrainment is a top-down reinforcement of habituated patterns. And of course, they're not really purely separated into this kind of reductionist abstract, this Aristotelian categorization. So, neuro elastic, what does that mean to me? It means that our brain is naturally capable of moving in and out of different ranges of adaptive behavior, kind of fluidly. It is really important that we have sleeping dreams, apparently, for memory consolidation and for emotional resolution and review, but you can't stay dreaming 24 hours a day. There's a certain amount of REM sleep that we should have, and



there's a certain amount of waking that we should have. There's a certain amount of deep sleep we should have. There's a certain amount of waking dreams that we should have. Our culture doesn't support the fourth waking-dream thing, but we need it. It's built into us for God's sake. The psychedelic brain is what I would call a brain that is able to manifest all these different qualities. The activation is the domain of the psychoactive agent. The psychoactive agent is the activator of fluid, neuroelastic behavior against the background of neuroplastic change.

Is this psychoactive agent is technically what you're focused on producing? Is your device designed for people to be able to tap into this and use this on their brain during their leisure time?

Yeah. That's fair. Once you have a psychoactive agency working, then you can also add in a guide, technically called a vector or a theme, to move it towards a particular theme or technically called a probability outcome, a probability state. When it comes to conventional psychedelics, this is the set and setting thing. The compound itself is an activator, it's a psychoactive agent, and it's mobilized or activated this quality of moving into a more information rich and tropic state. Fantastic. However, in and of itself, it is not that state. The state is a combination of all sorts of factors. That's why there's set and setting. If you do a hit of acid and you're in a very positive setting, and you enter into it with a good set point, meaning your emotional state, that is really shaping the conscious outcome. But if you take the same hit of acid and you're out partying in the streets, driving around in a car, it's not the same.

So, that's why the agent, the psychoactive agent, enables a higher order of experience that is innate to the brain's processing and is highly influenced by all kinds of factors. I like to reflect upon Pain and Pleasure. Our brain is naturally developed to be able to have both of those ranges. So, right now if somebody wandered in the room where you are and snuck in with an ice pick and began to jam it repeatedly into your left knee, that would be very painful. On the other hand, if somebody snuck in and rubbed some kind of secret po-

tion on your left knee and you had instant orgasmic sensation in your left knee, that would be very pleasurable. What do those two radically different experiences have in common?

They tell us that we're alive?

Okay, maybe that's true, but I would say more simply, that both made your attention go to your left knee. Until I started talking about your left knee, you probably weren't aware consciously of your left knee. So I say right now, just put your attention in your left



knee. Okay. Stop doing that. Put your attention in your breathing. Feel your breathing. Just feel it. Okay. Now, combine the two. Feel your breathing and your left knee. And now you're directing the charge psychic breath into your left knee. We live in the so-called information age. Information, what is it? Information, to me was clarified by Gregory Bateson, a fabulous eclectic thinker and anthropologist by trade. And he did it for me in two bumper stickers. He said, "Information is news of change." If there's no change, there's no information. Then he

clarified it further and he said, "Information is a difference that makes a difference."

Information is news of change, and it's a difference that makes a difference. The hottest current brain theory is predictive coding, it's an evolved process. Our brain harvests experience from the present moment, so-called bottom up experience, it harvests and catalogs them in a library of the past so it can predict the future. That the basic triad of predictive coding. Our top-down, our neocortex, the smart zone

in our brain has no direct experience in the present moment. It has literally no idea of the present moment, because it lives in a library of cataloged past experiences and does its best to project correctly into the future.

Bottom-up sensory experience gives us the moment right now, and then the two try to cooperate. So the present moment is not only the source of initial information, it's also the clarifier as to whether our predictions are true or not. So to me, the trick of discovery and even what I would dare to call healing, is to coax the brain to settle into real time present experience. This kind of lines up with a lot of the concepts we hear today right? The power of now and living in the present moment. So I try to access the understandable aspects of this and put it into an application based on that theory.

Right now, the idea is to know what is true based on experience, and to also recognize what is not true based on experience. Also, let our mind be honest so that the confirmation bias that we have in trying to figure out what the hell's going on with life, that the confirmation bias doesn't overrule real experience in the present moment. That's what I'm trying to exercise, this capacity in the brain. Also because we don't really like work that much, we would much prefer to have fun, I'm trying to do it in a way that is engaging and entertaining, satisfying; It's like a health food that actually tastes good. You're not even eating it because it's healthy, you just like it so much.

So, You're doing this activity, but maybe you start doing it for a utilitarian purpose of fun, like you say, or you get some enjoyment out of it. But the real reason I think why you would be doing it, is to cre-



ate that awareness and put yourself in the present moment to have a good present moment experience. In addition, you're keeping the future in mind, like what you were saying in the beginning with dementia and all these other chronic diseases that can come at you. If you're keeping this brain in its optimal state and enjoying the present moment and being able to have those great neuroplasticity moments would you say that you're kind of forming yourself through this activity that you're doing in your leisure time and making yourself become the best person in preparation for those future years?

Well, if we can do that, that's fantastic, and Yes. In a pleasurable context, exercising your ability to be in the present moment, is still guiding you towards good choices and positive experiences. It's kind of at the heart of any kind of developmental, spiritual, psychological process. I think it's pretty true that unless certain activity is done, that as we age, both our bodies and our minds become more stiff and less able to make adaptive changes fluidly.

I'll come back to the focused or focal attention. It seems to be the cardinal factor in psychoactivity. There's something that arouses a natural process and whatever that arousing agent is, attention seems to be a real critical aspect of it. You can become increasingly aware of your states of consciousness. And those states of consciousness can be quite diverse, if the brain is naturally in this sense, psychedelic. From my view, it seems to be that one of the deeply seeded aspects of discovery in the psychedelic sense is humor.

I think funny is a surprising psychedelic state, rather short in



duration for the most part. From a predictive coding brain theory perspective, you predict and then you see with bottom-up real moment experience whether your prediction is valid. And that's the craft and the timing of humor; you set up, set up, set up and then you hit 'em with a punchline, and it's not what they expected. We laugh; it's built right into our respiratory autonomic nervous system. We just don't have a feeling. It's funny, we actually have this thing called laughter. How organic can you get? I think it's a dose of a psychoactive agent, which happens to be something that you can do when you craft a story.

I'm a believer that just because a state is uncommon doesn't mean it's abnormal. So just as uncommon, this is just a feature of how we metabolize, but it doesn't mean that it's abnormal to be experiencing this in an uncommon way.

But because it's uncommon, does it mean that it's not right for it to be common?

Well, it's probably an issue of dose. How much? If you're laughing all day nonstop you're probably nuts or need to lay off the weed or unfortunately both. The amount of time is in relationship to what we call dose. And I think that as a dose, we really can't take too much humor. When you laugh so hard and so long you wet your pants, that's pretty much the biological limit of how much humor you can tolerate. It's different with kids sometimes, like when they get the giggles. They can tolerate the giggles a lot longer than you. It's a lot funnier to them than it is to you.

It reminds me of the saying, "It's the little things that count." When you hear it, do you give

it validity? Do you think, that is seems true. What's your reaction to that saying?

I give it validity more than I would discount it because I think that a lot of times, moments that are part of our everyday life and that we experience with people that we are around a lot, really make up a lot of our memories that we look back on with joy.

Yes, I agree. I oftentimes use physical exercise in an analogy. Is it better to just like push yourself in exercise every Saturday? Or is it better to do some amount of conservative activity regularly over time? The second one. That's kind of obvious at this point, even though sports medicine has had to really change course with the more-is-better mentality. We realize that's not true at all. So in that case, when it comes to exercise, you could say it's the little things that count. It's the regularity of a perhaps rather modest dose of activity. In a summary sense, you're going to get a lot of benefit out of it. I'm going to stretch the analogy a little bit with exercise. Not that it's the only way, but one example is to microdose your exercise, right?

If you follow the simple kind of calculation based on dose, using a psychoactive agent of low dosage regularly over time has the strong probability of generating positive change in outcome.

I don't argue it as being the only way, but it is one way. And when you look at the commonality of life, speaking of common and uncommon, most people would find that they maybe reluctantly are in agreement with the statement, 'it's the little things that count'. Do you do something really nice for your wife once in a while, or are you consistently kind and caring over time in all sorts of little things? Which one is going to give a better outcome in your marriage?

Definitely the second one.

There. So, concerning psychoactive agents, they can work very effectively once in a while as a big thrill. However exercising the fluid elasticity of change over time is effective so that even if you hit a big speed bump, you're back at the steering wheel after that. Now, I like to view things in terms of principle. I like to learn in terms of principle, because once you



see the principle, then you can more easily detect it in all sorts of circumstances that overtly may seem to be of no relationship. Like right now, microdosing and exercise and keeping your wife happy with you, all seem to be able to follow the same principle.

Yeah. It's the little things that count.

It's the little things that count. Yeah. **So when it comes to microdosing following this principle, I've put together this concept of drug-free microdosing. Its the idea of using light and sound as a dose dependent, psychoactive agent that moves in a certain vector or theme and done with some regularity.** It has a strong probability of generating the same benefits as compound microdosing because it's the same neurological principle. If you order something online, do you really care whether it's delivered to your door by FedEx, UPS or DHL? That's the delivery agent. It's the action, the endpoint, the success of getting the thing that you wanted and you ordered. That's important. The agent is influential, but not critical. So, to me, the psychoactive agent that you use to get your attention to go into your left knee, is a choice factor depending on what agent you are most susceptible to, what fits you philosophically or what is socially acceptable to you. Maybe sitting around a fire with drumming is socially acceptable to you. Maybe it's weird and you would never do that. There is a certain amount of liberty as to what psychoactive agency is comfortable for you.

I've done research into social statistics around microdosing and it holds a lot of promise. It's also really contentious in terms of does it really work? And what's the proof and so on.

But one of the main issues that people struggle with is the illegal status of these psychedelic compounds used in microdosing. Now, for some of us, doesn't mean anything. As a matter of fact, for some of us, I'd say that we stand the risk of romanticizing the psychedelic compound too much; that we get more of a rush of the fact that we're microdosing acid than we are actually in the microdosing process. The idea with microdosing is that you don't really feel any of the psychoactivity; it activates a process, but you don't really feel it other than the self-evaluation. Am I more creative? Am I less anxious? It's like hard to know. It's more subjective.

In my world, using light and sound in the concept of stacking is part of the process. You could stack a compound with the drug-free light and sound. That's okay. The evidence is that you can combine psychoactive agents for a more dynamic summary effect.

Neither of them are biochemical. It just feels right and it feels good at the same time. Some things feel good, but they don't really feel right. Some things feel right, but they don't really feel that good. For this one, it feels both good and right. I feel that this is potentially precious because life is frankly not that long. Old people say that. The other thing is that there is suffering, and the suffering can be so strong that it obliterates the preciousness and the beauty of celebrating life. So, I like spending my days doing this. It's okay.

Going back to your product, there is a little bit of that demand that the device uses. One could make the argument that there is maybe just a tiny bit of suffering in a sense of trying to place your attention when the pattern has

changed and everything. It may not be a bad manner of suffering. Our sufferings on earth, do kind of refine our character and help us to become better people. Making someone go through something that is a little bit hard, can help mold them into something for the better. Exercise is hard when you first do it but it promotes change for the better. With this and your device, it's a harder thing, but you make it fun. You make it fun, and you provide the rewards and everything.

Yeah. Well, you are correct, I would only caution of the too liberal use of the word suffering. I would substitute the word challenge. We experience challenge. **The NeuroVizr™ experience is to the best of my ability built upon the known neurology of neuroplastic change, and some amount of what I'll call common sense.** There's a three step formula to any neuroplastic method and then there's a fourth secret sauce that makes it work better. The first thing is the method, the process, the technique, the experience must captivate or draw in your attention. It gets your attention. Ideally, it's an attention without tension. It should not require that you concentrate. .

Concentration is attention with effort. So the method should be initially captivating. It should get your attention and relatively well keep your attention. The second thing is that there has to be this thing called marginal demand. To illustrate, I'll give an example. If you can lift 45 pounds, I'm not going to give you 90 pounds to train. I'm going to give you just a little bit more than 45 pounds. Why? Because it will present a challenge to change and adapt. The third thing is the willingness to do it. Attention, marginal demand and open-minded willingness are the three things that



come together to have a neuroplastic method or a neuroplastic technique. The fourth thing, what I call the secret sauce that makes those first three work exponentially better, is that very complex neurochemical state called Enjoyment.

As you said earlier, awareness is so vital to make us stop in the present moment and really enjoy that present moment. Maybe with more connections, more neuroplasticity and more brain engagement activities, we can bring ourselves to that level of awareness, to kind of stay in the state, that's going to make us happier and live more fulfilling lives. So, Garnett, I wanted to ask about microdosing and, E psychedelics. Can you talk more about it and drug-free microdosing?

Yeah. Well, it's a drug free microdosing. The release is scheduled for October 14th at the Biohacker Summit in Amsterdam. It doesn't take the place of brain gym and mind states and better sleep and brain optimizers. Those are all fantastic animals that live in the forest. I've been waiting for what I think is the right time to bring this out.

Garnett:

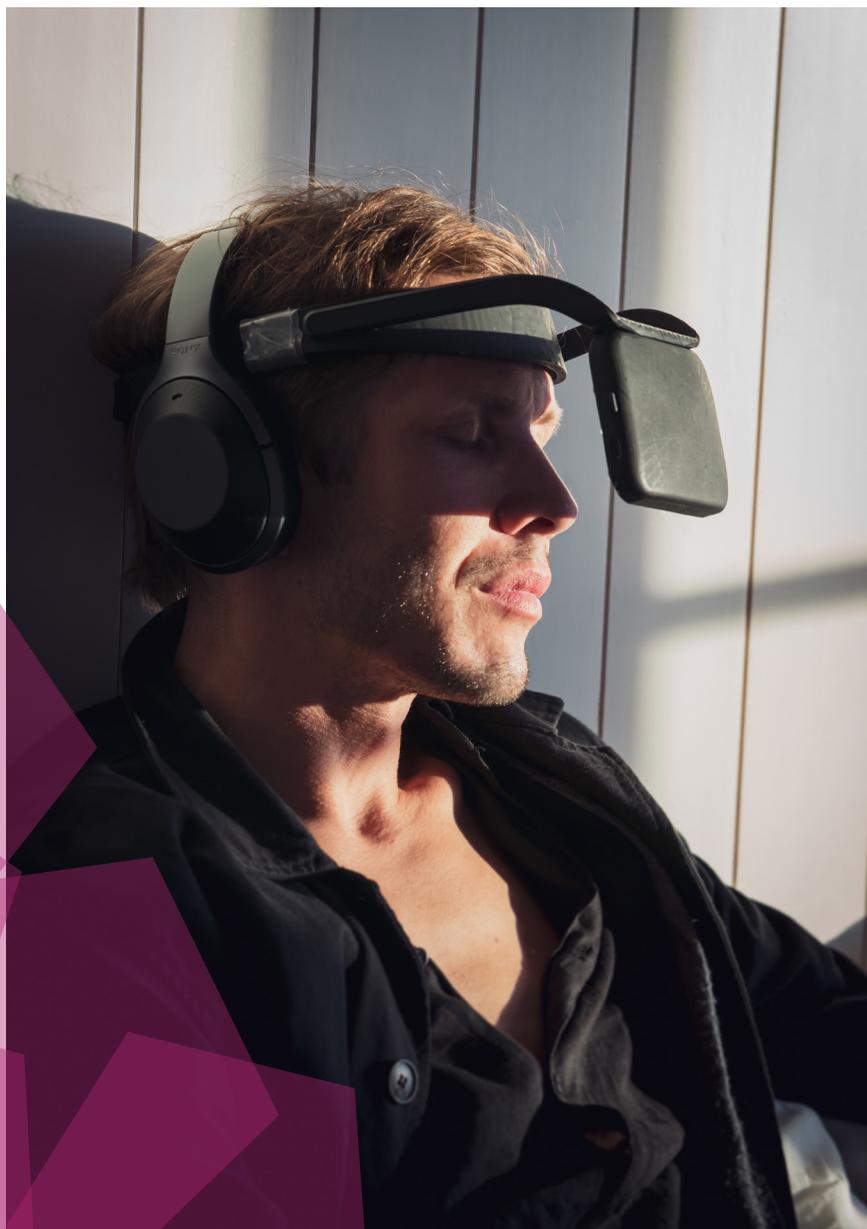
I didn't do it just recently. I did a lot of research to get to the point where I think it has validity. And the validity has been proven to me theoretically over time. So, drug-free microdosing is not in conflict with compound microdosing. If anything, the rationale of drug-free microdosing should support the rationale of compound microdosing, be-

cause they're both based on the same underlying capacity of little things that count, small doses repeated over time.

The exciting thing about microdosing is the potential for conservative, reliable change over time using acceptable psychoactive agents that personally for you are acceptable. If you order compounds off the net, especially the dark web, I wouldn't recommend that. It isn't just that it's legal or illegal. It's also the question of is this real or not? Is it tainted? And then the other thing is, even if it is, are you really able to regulate the dosage accurately? If you're using mushrooms, for example, different strains have different potency. There are a set of challenges that surround compound microdosing that are different than does it work or not.

Right. I think what I like about your mission and what you're trying to do with the technology is that it's not connected to something that sits in your body or something. It takes a little bit of those worries away from it because it's just the device that taps into the brain's innate ability to go into these states. You're able to experience this and not get caught in all of these other thoughts. You're able to also not worry about having to leave reality because if you want to take it off, you just take it off or you just turn it off. There's more control.

Yeah. I would say that the elements of risk go way down. Right. The only substantial risk is there are people that are seizure prone, either epileptic or photo sensitive. That's not new, that's old. They shouldn't use all kinds of pulsed, signal devices, even the cautions that come up in video games now.





So in terms of risk, it's a very, very, very low order of risk. Um, and because, you know, in the device you can like volume on, I'll call it stereo to date myself, I don't know what they call now, uh, how you listen to music has a It has a volume control and you also have a light intensity slider where you can put the general intensity way down or in the middle or higher. So that kind of subjective personal choice, it exists in the device. It's up to you. Choose the one that works for you.

So please tell us briefly what you'll be discussing at the Biohacker Summit this October.

There's the keynote speech, which is going to be on drug-free microdosing. I'm trying to help people understand the principle within a relatively short period of time, of psychoactive agents and the little things that count. I have two other side sessions in a room that accommodates up to 200 people for about 40 minutes, one time each day. It's different than the keynote speech. I'm going to talk more in depth about drug-free microdosing and answer questions about it on day one. On day two, I'll open

it up to all the other stuff that people have questions about, like mind states and brain gym and brain optimizers. Part of my challenge, to go back to that word, is that in the NeuroVizr™ signature collection, there are lots of different sessions and each category is defined for certain uses and purposes.

So it's not a one session works for all. You can make choices. That remains a little obscure by the way. We have a personal guide for the NeuroVizr™ collection and we're just finishing an 80 or 90 page book on the personal guide to drug-free microdosing. The presentation is quite impactful and attractive. Also in drug-free microdosing, you have four different protocols to use. I didn't make the protocols. So actually built into the app, you can plug into how to use whatever theme you choose in one of the four protocols.

Garnet. I did have one last question before I let you go. So talking about the NeuroVizr™, and about this subjective experience, can you speak personally on how you've seen changes? Maybe not at first, but a little

bit. Whether it's your thinking patterns, you're less forgetful, etc. Also I know you were doing a few studies on the technology, so those may tie into the answer for this question as well.

Yes. So, objectively, speaking to the studies, we're in pre-publishing mode right now, so, when you publish something, you can't have put it into the public before you publish it. But the findings are quite good. Subjectively for me, I've mentioned that I'm older but my mind, in my personal experience, works better now than at, say 40 or 45 years old. And I was always a smart guy. But there's some quality to my cognition now that is better than before. I think it's impossible to point at one single thing. When it comes to the NeuroVizr™ work, there's something additive to my thoughts, not even the thinking thing. So I give credit to two things. One is in the spiritual tradition, there's lineage. I think that I'm a very lucky man and I experience a lot of blessings in grace now. I think I'm graced with a lot of insights; I'll call them blessings. It doesn't seem like I'm generating it, I just have to say that. That's one thing. The oth-

er is that the way I interpret my experience, because it's been over six years, that I've done a whole lot of this light sound stimulation, because I design it. I'm a very atypical user because I do it all kinds of ways and different things and so on.

Many of the insights that I get, I get while doing the light sound stimulation process. What I've noticed over time, is that I'm a hypnopompic guy. Um, and I think all the different things come together for me in the process of coming out of sleep and into waking that first half hour or so. Stuff just like pops into my head. What seems to pop up in five seconds, takes me five hours at the computer to try to capture in a way that can be communicated.

So, in this sense, I'm lucky because it's somewhat reliable. And the other is when I'm working hard to understand something, and then seemingly out of nowhere or somewhere, a certain research study comes in front of me and it has information that I've been scratching my head over and trying to understand, and then suddenly it's there.

There really does appear to be a very attractive benefit at a personal level because I'm not special. I'm just another guy. So I would like other people to have this access to the same positive stuff that I have access to. Yeah. I respect any spiritual or religious tradition that isn't wacko and hurting people, I respect that. I believe I know that you also practice within the Catholic tradition. I appreciate it now more than I did when I was young. I appreciate it more now. For me, I can go to mass now, the Catholic ritual, and I have a deep and motivated experience. It's a psychoactive agent; we can

go back to that. I am moved by it because I appreciate it now and I think that's a good thing.

Yeah. I completely agree. There's power in the experience and understanding; coming to new insights, especially the way that you've described them. I think that's more than enough reason to try something that can bring you insights that make a lasting impact on your life and save you time. Life is short and we need those insightful moments and from the source, from God that pop into our mind and give us the truth that we've been searching for to help us propel ourselves into a new way of understanding and a change for the better.

What else are you going to do with your time?

Exactly! Why not do some constructive neuroplasticity mind workouts with drug-free microdosing and/or the NeuroVizr™?!? Well, sir, I appreciate the time brother, and I can't wait to hear more.

Okay. Alright. Sincere thanks to you and the team.

Garnet. I'll leave you as with the last words just to give the people a resource of where do they can go to check out what you're doing, your mission and the technology behind it all.

Well, we're working on websites as everybody else in the world is. But its NeuroVizr.com; it's a weird spelling. And for me, I'm in Chiang Mai, Thailand, so if you want to come visit, just tell me when to pick you up at the airport. That's not difficult.

Well said. Garnet, a real pleasure and again, I appreciate the time.

Okay. Rock and roll. Bye-Bye

WEB: <https://NeuroVizr.com/>
FB: <https://www.facebook.com/NeuroVizr/>
IG: [@NeuroVizr](https://www.instagram.com/NeuroVizr)



SAY HELLO TO **VIZR™**



Be the first to unleash the VIZR™ power.

Our latest headset is the result of 7 years of dedicated prototyping, state-of-the-art optometric advancements, and invaluable user feedback. Step into the complete NeuroVizr™ Experience, encompassing multi-sensory light and sound for brain enrichment. Explore the Brain Organizer for personal growth, the Better Sleep Collection for rejuvenation, and the Brain Gym for heightened focus and clarity.

Ready for an experience that can truly change you?

Learn more and pre-order the new VIZR™ device at www.neurovizr.com.



neuroVIZR™
The Change Maker

UNLOCKING HUMAN POTENTIAL: KETAMINE, PSYCHEDELICS AND DIGITAL HEALTH TECHNOLOGY



Garnet Dupuis:

Greetings! Today, I'm thrilled to connect with William Taylor, located all the way in Glasgow, Scotland, where he's part of an innovative initiative. William, can you briefly introduce yourself and explain the essence of your work?

William Taylor:

Of course, Garnet. I'm currently affiliated with the Eulas Psychedelic Clinic in Glasgow and have collaborated with their sister company, Nova Recovery, for over two years. My academic pursuits span across psychology and sociology, having initially started as a teacher. Over time, my passion has veered towards the potential of digital health technology in revolutionizing therapeutic interventions.

Garnet Dupuis:

Could you clarify the concept of digital health technology for our audience?

William Taylor:

Certainly. In its simplest form, digital health technology involves leveraging electronic devices for therapeutic purposes. Given the ubiquitous nature of technology, especially smartphones, I'm exploring its potential as a therapeutic tool.

Garnet Dupuis:

Regarding your mention of digital devices, many readers of this interview might be aware of my involvement with the NeuroVizr™, which incorporates both light and sound technology in a digital format. Given the prevalence of computers, virtual platforms like Zoom, and the increasing trend of virtual medical consultations, it seems you are referring to both software and hardware aspects of digital technology.

William Taylor:

My initial exposure to the integration of digital technology in healthcare was through platforms like Zoom, which facilitate virtual check-ins and make remote access more convenient. This approach has proven valuable in our aftercare programs, especially for individuals overcoming addiction, where assistance is merely a phone call away. Your subsequent mention of the NeuroVizr™ is particularly intriguing. In my opinion, this technology has the potential to revolutionize our approach to healthcare and the treatment of mental disorders.

Garnet Dupuis:

Interesting. Let's shift gears a bit. Can you tell us more about Eulas? I'm curious about its spelling and its association with psychedelics.

William Taylor:

Eulas roughly translates to "knowledge gained through experience." At Eulas, we've launched what might be Scot-

land's pioneering psychedelic clinic. Initially, we're focusing on ketamine therapy. The aim is to disrupt detrimental mental processes in patients, facilitating profound introspection and healing. We couple this with conventional therapies to ensure lasting positive change.

Garnet Dupuis:

The evolving landscape of mental healthcare has witnessed monumental shifts, from Freudian psychoanalysis to the explosion of pharmaceutical treatments. How do you perceive the emerging psychedelic trend in relation to these developments?

William Taylor:

A pertinent question, Garnet. My conviction leans heavily towards the belief that the current momentum around psychedelics is transformative. Our historically reductionist perspective of the mind is evolving. While traditional therapies play an essential role, holistic interventions like psychedelics have the potential to revolutionize how we address





psychological distress. As societal perceptions shift, the holistic benefits of such interventions are becoming more evident.

Garnet Dupuis:

Historically, the psychedelic movement was closely associated with the hippie era. However, ketamine, being a dissociative, isn't a classic psychedelic. Could you elaborate on your definition of "psychedelic"?

William Taylor:

Absolutely. While ketamine isn't a traditional psychedelic, it's our most accessible option due to its extensive study and legal status in Scotland. A psychedelic substance promotes profound mental shifts, leading to enhanced self-awareness and introspection. It's less about the substance itself and more about catalyzing the mind's innate ability to restructure and heal.

Garnet Dupuis:

Building on that, I hold a belief that our brain is inherently equipped to process experiences positively. Would you say that psychedelics essentially act as catalysts, activating this natural ability, rather than being the sole agent of healing?

William Taylor:

I concur, Garnet. The innate capability of our brain to heal and adapt is profound. Psychedelics, or as you put it, "psychoactive agents," don't magically heal. Instead, they might serve as the key that unlocks our brain's inherent potential to process and overcome challenges.

William Taylor:

Your insight resonates profoundly with my own beliefs. Many perceive these treatments as a miraculous solution. But in truth, we possess innate poten-

tial that often remains dormant. Some of us are deeply ensnared in our traumas and adept at evading confrontation with them. However, if a psychoactive agent empowers us to confront our deep-seated issues, then its efficacy is undeniable.

Garnet Dupuis:

While "psychedelic-assisted therapy" is gradually gaining traction, I'm concerned about potential misconceptions the term might foster. Its growing popularity might create some biases hindering its widespread acceptance. For instance, ketamine is classified as a dissociative, altering ego perception. Other substances, like MDMA, offer distinct psychological effects. Given your pioneering work in Scotland, do you think the term "psychedelic" could be inhibiting due to societal conservatism?

William Taylor:

Absolutely. The term does evoke hesitation, especially within Scotland's traditionally conservative societal context. While enthusiasts embrace the therapy, skeptics have reservations. The terminology, dosage, interdose intervals, receptor adaptations, and sensitization spark discussions among both experts and the general public. For us, initiating with ketamine seems prudent, given its extensive research backing in Scotland. It offers a controlled, mild introduction, setting the stage for potential broader acceptance as more data emerges.

Garnet Dupuis:

This might be a tad provocative, but how do therapists approach this? Is there a guiding manual, or is it based on intuition combined with experience? Comparing it to

a tangible procedure, if I had to perform minor surgery, I might have a vague idea, but without proper training, it would be daunting. How do professionals prepare to navigate such an intricate therapeutic space?

William Taylor:

This treatment demands a beginner's mindset, prioritizing collaborative engagement with the patient. Preconceived notions should be set aside to ensure the therapy is personalized and efficient. While the actual administration is executed by a higher medical authority, my role is to offer emotional and developmental support before and after the treatment. Safety and comfort are paramount. For instance, with ketamine, we need to screen potential candidates rigorously due to its abuse potential.

Garnet Dupuis:

I'm curious about the actual process. Do you oversee the administration, or is that someone else's responsibility?

William Taylor:

While I engage closely with clients emotionally, the technical administration lies with a qualified anesthesiologist. They are skilled and experienced in ensuring a controlled experience for the client. The environment is also designed to maximize comfort, integrating natural elements to reduce anxiety. We prioritize the client's safety and well-being throughout the procedure.

Garnet Dupuis:

Are clients alone during this experience, or is a therapist present?

William Taylor:

The choice lies with the client. Some prefer company for reassurance, while others seek solitude. Regardless, continuous monitoring is guaranteed for safety.

Garnet Dupuis:

Psilocybin's effects typically last around six hours. What about ketamine?

William Taylor:

The duration might be approximately two and a half hours, though individual responses can vary. Our main priority is ensuring clients are supported from beginning to end. Post-treatment care is also available, ensuring clients are steady and centered before leaving. If desired, extended stays can be arranged to reinforce recovery.

Garnet Dupuis:

Regarding the legality of treatments involving psychedelics, I am more familiar with the regulations in the US and Canada. However, from what I've gathered, patients typically undergo traditional psychotherapy preparation and are permitted up to three full-dose sessions, followed by continued conventional therapy. In your clinic, are you required to adhere to a specific legal framework, or do you design your therapeutic approach?

William Taylor:

Certainly, there are legal guidelines that prioritize the safety and





well-being of the client, ensuring that we don't exceed recommended dosages and sessions. Our primary objective is to align with the best practices as defined by medical oversight and relevant governing bodies.

Our aim is to provide a flexible therapeutic experience. Clients can opt for a single session of ketamine therapy, then receive traditional therapies in a treatment center for several weeks, and later decide if they'd like to continue with further sessions.

Garnet Dupuis:

In terms of treatment settings, do you provide both outpatient and inpatient services? Could you clarify?

William Taylor:

Primarily, our services are outpatient. However, we collaborate with other centers where clients can opt for an extended stay, undergo treatment at our facility, and then return to their residential center.

Garnet Dupuis:

Are these associated centers primarily rehab facilities focused on addiction treatment? I'm intrigued by the choices available to patients and the balance between their autonomy and regulatory requirements.

William Taylor:

What makes our work at ULI so compelling is that we're pioneering a standard in Scotland. While the UK has overarching legislation, health service operations in Scotland are distinct. We're in continuous discussions with regulatory bodies, charting a path in an emerging domain. It's an evolving landscape, and many of

the answers are still taking shape.

Garnet Dupuis:

This is enlightening. The pioneering nature of your work in Scotland is remarkable. Where do you derive your expertise, and how do you stay updated?

William Taylor:

Our team is always on the quest for knowledge. Personally, I delve deep into scientific literature, ensuring my insights are current and evidence-based. Different team members specialize in areas like legalities, organizational structure, and training, making our collective efforts synergistic.

Garnet Dupuis:

There's a rich history of psychedelic research. Historically, substances like LSD showed promise in health applications. Now, I'd like to inquire, have you personally undergone any psychedelic or ketamine treatments?

William Taylor:

While I haven't partaken in drug-induced psychedelic experiences, I've had moments that resonate with a psychedelic essence achieved without external substances.

Garnet Dupuis:

The role of music in therapeutic sessions with psychedelics is often highlighted. Renowned institutions even have curated playlists for this purpose. What's your stance on music's impact during these sessions, and how does your clinic approach this?

William Taylor:

Music and sound play a significant role. Creating a conducive environment is imperative, as

sound can profoundly influence a patient's experience. We're aware of the various sound therapies and their potential neurological impacts. While we don't have bagpipes in the mix, we are curating playlists tailored to individual preferences to enhance the therapeutic process.

Garnet Dupuis:

The term "psychoactive agent" refers to any stimulation capable of altering or influencing one's mindset. Music's profound impact on our moods is a testament to this, especially when we're in heightened states where the experience feels entirely novel. Drawing from the Greek terms 'psycho' and 'Delia', a psychoactive agent brings forth the innate aspects of the mind. An analogy to consider is the delivery service used for an online purchase; whether it's FedEx or DHL, the focus is on the result. Similarly, various psychoactive agents can

serve as keys to unlock pre-existing chambers of the mind.

In a recent conversation with Luis Eduardo Luna, an authority on the indigenous use of psychedelics like ayahuasca, he highlighted that we all tap into shamanic states nightly when we dream. Our brain naturally cycles through creative states daily, and a psychoactive agent is merely a tool to access them, akin to methods like meditation or sensory deprivation tanks. These states, although uncommon, should not be deemed abnormal. An apt example is the emotion of anger – it's a deviation from our usual state but not abnormal.

Importantly, tools like the NeuroVizr™ offer drug-free applications, promising psychoactive-assisted therapy without reliance on chemical compounds. Leveraging modalities such as specially designed light and sound can usher in transformative experiences. As we explore

these avenues, we must avoid oversimplifying the potential benefits, veering away from a "magic pill" mindset that may arise with certain compounds.

William Taylor: I'm fully aligned with your perspective.

Garnet Dupuis: Thank you. I've shared quite a bit, but I'm intrigued about your insights. What drives your beliefs and endeavors?

William Taylor: I'm of the conviction that each individual is their own catalyst for change. Our objective should be to offer tools that unlock one's innate potential. The word "psychoactive" resonates with me because it emphasizes the individual's power, moving away from a magic pill solution. I'm captivated by the intricacies of the mind. Its vastness and complexities draw me in. My understanding of the mind



MENTAL
HEALTH
MATTERS



has been shaped by many scholars, like Bernard Castro, who see consciousness as foundational to existence.

Garnet Dupuis:

That's a viewpoint I too resonate with.

William Taylor:

Our current understanding of the world, rooted in enlightenment thinking, can sometimes be too linear and mechanistic. What matters more is our shared human experience and how we can flourish. Whether through drug-based or drug-free means, I believe in leveraging every tool at our disposal to unlock human potential.

Garnet Dupuis:

I prefer the term "drug-free" because it carries a sense of empowerment.

William Taylor: Absolutely. My exposure to technologies like the NeuroVizr™ has opened up excit-

ing avenues for therapy.

When John Gillen introduced me to the NeuroVizr™, his enthusiasm was palpable. We now possess one and are eager to utilize its potential, especially in relation to the corpus callosum, which governs much of the inhibition between the brain's two hemispheres.

Garnet Dupuis:

Inhibition, indeed.

William Taylor:

Precisely, between the brain's two hemispheres.

Garnet Dupuis:

It tends to assert "no" more than "yes."

William Taylor:

Exactly. This dynamic can lead to a bias towards one hemisphere over the other. While there's significant interconnectivity within the brain, the left side is often more analytical and detail-orient-

ed, while the right is more holistic. Ian McGilchrist, a renowned psychiatrist and neuroscientist, has extensively commented on this in Western culture.

Garnet Dupuis:

Returning to a concept you've mentioned: while some refer to it as dissolution, you term it "ego death." From your perspective, it seems to hold significant therapeutic value. You also touched upon crafting narratives. It's widely believed that we, as humans, are innate storytellers, creating narratives to make sense of our experiences. But I'm curious—what exactly do you mean by "ego death"? Why is it deemed beneficial, if at all?

William Taylor:

"Ego death" might sound dramatic, but it denotes the end of a detrimental belief system or behaviour pattern. It's a transformative phase where one sheds self-limiting beliefs to progress. Drawing from Viktor Frankl's work, I believe crises can serve as catalysts, enabling individuals to shed toxic habits and reconnect with their core selves.

Garnet Dupuis: So, it's more about a transformative self-awareness.

William Taylor: Precisely. It's an introspective journey toward self-betterment.

Garnet Dupuis:

Your words remind me of the REBUS concept, an acronym introduced by Robin Carat-Harris in San Francisco and Karl Friston, a prominent figure in the field. REBUS stands for "RELaxed Existing Beliefs Using Psychedelics." It aligns with what you mentioned

about obstructive beliefs in the context of ego death. The idea is that we all have deeply ingrained beliefs or habits that shape our perceptions. These can be relaxed or reshaped using various agents, not limited to psychedelics.

William Taylor:

It's intriguing to explore the concept of an axiom in this context, which in scientific philosophy refers to a self-evident truth that needs no proof. Our beliefs, some of which may be false or obstructive, often operate as axioms. The challenge lies in recognizing and deconstructing these inherent biases. We need to identify tools, be it psychoactive agents or other interventions like relaxation techniques, that can help us break free from these biases.

Garnet Dupuis:

It's imperative to recognize that beliefs can shape our experiences. For instance, societal biases about gender or age can skew one's perspective. As a solution, psychoactive agents or even holistic practices, like taking a vacation or undergoing therapy, can serve as catalysts to shift these perceptions. This brings me to the potential of music in therapeutic settings. Music, as well as a safe environment and the support of a skilled therapist, can serve as powerful agents of change.

William Taylor:

Absolutely. The power of belief plays a crucial role, especially in recovery from addiction. This belief becomes the foundation for progress. REBUS provides a perspective that can be integrated into therapeutic practices. At ELI, we are considering multifaceted approaches, inspired by such discussions, to enhance the effec-

tiveness of interventions.

Garnet Dupuis:

The context in which an experience occurs can greatly affect its impact. Whether it's a simple gesture or undergoing therapy, the setting and circumstances can either enhance or diminish its effect. I'm particularly interested in the potential of drug-free psychoactive agents. We must remember that we possess intrinsic healing and regenerative capabilities. Our minds and bodies are capable of remarkable things.

William Taylor:

I concur. The ongoing exploration and discovery in this field

are indeed promising. As for ELI, we're on the brink of a new chapter. Our doors will open soon, following the final inspections.

Garnet Dupuis:

Your endeavors at ELI are commendable, William. Being of service to those in need is truly noble. I am grateful for this insightful conversation.

William Taylor:

I'm equally appreciative, Garnet. It's been a pleasure engaging with you today.



William Taylor



William Taylor has been educated at West of Scotland, Edinburgh, and Strathclyde Universities; with over a decade of care experience, educator and psychologist William Taylor is an ambitious and motivated member of the Eulas team. His areas of interest include digital health technology therapy for integrating

psychedelic experiences and stress management, identifying practical person-centered coping strategies, and curating therapeutic experiences that respect

individual differences and continued personal development. William has years of experience packaging the latest empirical research into practical resources for alcohol and substance use disorder as well as mental health. His work as an educator, research experience, and counselling skills marry together to produce an informed, diligent, and compassionate therapist.

<https://eulasclinics.com/>

ACKNOWLEDGMENTS

There is so much support behind our cause and we are eternally grateful. As a new company fresh off the block, we've had our fair share of challenges but because of all of our supporters, we've overcome them and produced, becoming more humble and stronger along the way.

Our many thanks to all those who made this possible:

THE CORE TEAM

Chief Executive Officer, Jean Fallacara
Editor in Chief, Dallas McClain
Chief Operations Officer, Jon Singer
Marketing Executive Director, Arjun Chauhan

THE WRITERS

The Lifespanning Media Team

Artira Tan - Content Contributor

Kristjan Järvi - Content Contributor

Luis Eduardo Luna - Content Contributor

William Taylor- Content Contributor

SIGNIFICANT CONTRIBUTORS

Designer, Andres Nuñez

Expert, GARNET DUPUIS, Brain Engagement Expert

COVER Credits

Light and set design: Tõnis Truuman

Photographers: Ivar Savin, Lilian Merila

Models: Ruth Raja , Ivar Savin

GENERAL ACKNOWLEDGMENTS:

Many many thanks to our partners, kids, friends & family who all had to suffer because of the long hours we put into building this magazine. Also we of course have to thank our subscribers, readers and followers on social media for supporting us along the way! You all ROCK!



LIFESPANNING

HELLO@LIFESPANNING.COM
WWW.LIFESPANNING.COM



biohacking CONGRESS

Use this QR promo code to
receive a 50% discount on both
On-site and Live Stream tickets!

October 20-22, 2023

Miami

Join BiohackingCongress in Miami October 20-22 to meet:

- 20+ top speakers who will share their outstanding experience;
- 20+ selected health companies which will present their products;
- 500 like minded guests onsite, your friends and potential partners.

Become a part of the community!



Join Jean as a guest on his podcast to discuss human optimization and the future of Biohacking with the industry experts.



NO PLAN B
PODCAST

NO PLAN B

RECENT GUESTS:



MARK DIVINE



DR PATRICK PORTER



MELANIE AVALON

Known as Cyborggainz, born in France, Jean is an athlete, entrepreneur, scientist, public speaker and an Art collector. He is the founder and CEO of CyborgMedia, the Managing Director at inTEST Corporation and the COO of Biohackers Update Magazine. He is also the author of "Neuroscience Calisthenics: Hijack your Body Clock." Jean holds a bachelor's degree in biochemistry, a master's degree in immunology and genetics, and an engineering degree in biotechnology. He has also studied neurosciences and brain functionalities, and law and finances. Jean recently graduated from MIT in XR-VR-MR. He is currently living in between Boston and Montreal after his biotech company was acquired by inTEST Corp (NYSE:INTT) in October 2021.

Website: jeanfallacara.com / Website: cyborggainz.com

BIOHACKERS
MAGAZINE

TOP 10 ENTREPRENEURS TO FOLLOW IN 2021 BY LA WEEKLY

TOP 10 MOTIVATIONAL INFLUENCERS CANADA 2020

TOP 10 ATHLETES INSTAGRAM INFLUENCERS IN MONTREAL 2020

AUTHOR OF THE BOOK "NEUROSCIENCE CALISTHENICS: HIJACK YOUR BODY CLOCK."

DISCLAIMER

The opinions expressed in our published works are those of the author(s) and do not reflect the opinions of Biohackers Update Magazine (referred to as Biohackers Magazine) or its editors and Cyborggainz Inc.

Information contained in our published works have been obtained by Biohackers Magazine from sources believed to be reliable. However, neither Biohackers Magazine nor its authors guarantees the accuracy or completeness of any information published herein and neither Biohackers Magazine nor its authors shall be responsible for any errors, omissions, or claims for damages, including exemplary damages, arising out of use, inability to use, or with regard to the accuracy or sufficiency of the information contained in Biohackers Magazine publications.

No responsibility is assumed by the Publisher or Editors for any injury and/or damage to persons or property as a matter of product liability, negligence, or otherwise, or from any use or operation of any methods, product, instructions, or ideas contained in the published material. No suggested test or procedure should be carried out unless, in the reader's judgment, its risk is justified. Because of rapid advances in the medical sciences, we recommend that a health service provider or an independent verification of diagnoses and dosages should be made. Information in this publication is current as of the date of the printing.

All rights reserved. No part of any Biohackers Magazine published work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher.

EXPAND YOUR BRAIN'S POTENTIAL WITH MULTI-SENSORY TECHNOLOGY.



Behind closed eyes, an incredible world awaits.

The new VIZR™ device is a multi-sensory light and sound brain enrichment technology that unveils this potential. In just 11 minutes the NeuroVizr™ collection, from the Brain Organizer for personal growth and habit transformation, to the Better Sleep Collection for rejuvenation, to the Brain Gym for enhanced focus and clarity, can elevate your well-being. Experience a blend of light and sound like never before with the Mind States Collection.

Ready to embark on a life-changing journey?

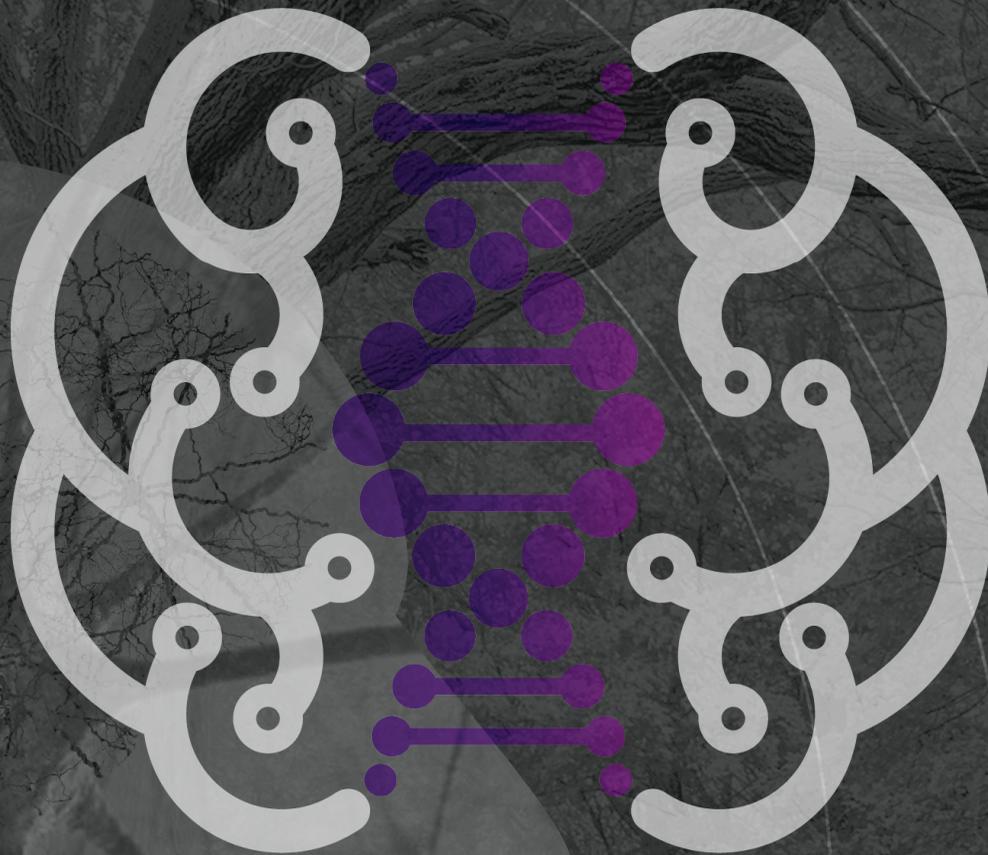
Learn more and pre-order the new VIZR™ device at www.neurovizr.com.



neuroVIZR™
The Change Maker

BIOHACKERS

MAGAZINE



BIOHACKERSMAGAZINE.COM