The Good Annealing Manual
Beata, Libor
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- - - sport, excercise, running, strength training, being in nature, socializing, sauna, cold/hot showers/bath, nondual philosophy, sex, praying, breath work, fast energy foods (sugar might come at the cost of desymmetrification in the long term or issues with reward processing and so on though), staring in the mirror, dancing, singing, massage, music, playing an instrument (or surfing any pleasant error reduction gradient slope), satisfying values (or in general any default processes that our nervous system is adapted to flourish the most in with symmetrical consonant activity), thinking about values, living from fundamental values or priors in general, high energy training at the edge of chaos, novel experiences, anything surprising, shocking, electrical shocks, ECT, TMS, experiential therapy or other theraphies, reflecting, journalling, writing your mind out, stressors, sleep deprivation, learning, manual

asphyxiation briefly administered, strong emotions, laughing, crying, anything high energy, extremely high-definition audio experiences: combination of the correct hardware/software + setting + mental state and alignment of material, digital fasting and reward circuitry tolerance breaks, rituals, dreaming, deep conversation with someone you trust, yoga, equanimity, love (for everything including oneself!)
- In society
- - Common thinking, threat, vision
- - synergizing collective individual annealing activities as part of culture, anything that reduces asymmetries between units, that causes higher interpersonal and intergoverningparts trust and coordination instead of competition, that unifies people, unifying thoughts and mental frameworks (movements, cultures, religions, ideologies, philosophies), "doing good increases the probability of good happening to you", "treat others how you want to be treated", meditation philosophy, love and kindness cultivation in culture, more socioeconomic equality in third attractor instead of dystopian 1984 or anarchocapitalism, ideologies, cultural steelmanning "oponent"'s arguments, finding common ground by seeing the best in eachother's argument and synthetizing on a higher level of complexity that respects fundamental values of all in the best possible way, governments hiding less info (Sweden), common threat and existencial risks (misligned artificial general superinteligence, rival (Europe unifying against Russia), climate change, global nuclear war, meaning crisis, Gods), common positive future utopian visions (Team Consciousness, Hedonistic Imperative, metamodern spirituality, transhumanism, globalism, marxism, Christianity, Buddhism), creating spaces where people can fulfill their values (or in general any default processes that their nervous system is adapted to flourish the most in with symmetrical consonant activity), focusing also on what makes us well and not just on what makes us sick, and cultural language of shared meaning instead of what polarizes us to unify us more

Introduction
- About This Book
Welcome to The Good Annealing Manual: From Psychedelic Alchemy to Chemistry of the Mind! This manual is your gateway to unlocking the vast potential of your brain and harnessing its power to enhance your daily life, emotional wellbeing, and hopefully everything else that follows from that. Whether you're a curious layperson, psychotherapist, or a scientist, we hope that this Manual will provide you with a revolutionary framework that transcends traditional boundaries of understanding and healing trauma by introducing a mechanism hiding behind neural annealing - the notion of energy of consciousness and psychedelic thermodynamics.
The Manual is largely built upon the work done by Qualia Research Institute's Co-Founders Andrés Gómez-Emilsson and Michael Edward Johnson. Andrés is the current Director of Research at QRI as well as Co-Founder, Mike is a Co-Founder and former Executive Director as well as the author of Principia Qualia (2017). Neural Annealing: A Theory of

Emotional Belief Updating in the Brain is a paradigm actively explored by Qualia Research Institute since 2016.
At QRI, our primary interests lie at the intersection of philosophy of mind, neuroscience, and neurotechnology. However, the research is not limited to these fields alone. Our work inevitably generalises into adjacent areas such as, broadly speaking, psychology and psychiatry, physics, chemistry, mathematics (dynamic systems, hyperbolic geometry), computer science, engineering, ethics, and lastly, by informing a field theory of consciousness, spirituality. In the realm of consciousness physicalism, we find it important to point out how our work stands apart from that of academia by several key factors which will be introduced throughout the book.
We tend to focus on experience as a source of value. We utilise the power of Karl Friston's "Free Energy Principle" (FEP) and emotional belief updating as a path towards improvement of general well-being. Besides Friston, another great influence is Friston's partner at the frontiers of computational psychiatry, Dr. Robin Carhart-Harris and his work such as "The entropic brain: a theory of conscious states informed by neuroimaging research with psychedelic drugs".
A practical step we're taking in that direction is to generalise neural annealing as a paradigm which would offer simple, practical tools that people could use in order to reduce negative effects of daily stress disrupting the flow of everyday life. This is what this Manual will try to convey. Thinking along these lines we also take electromagnetic and field theories seriously as they can help us explain the nature of qualia and phenomenology.
All of this has resulted in transcending computationalist and functionalist reductionism and thereby creating a uniquely effective methodology that recognizes the duality between the energy of FEP and the actual physical energy. As Andrés Gómez Emilsson writes in his piece Wireheading Done Right:
The task of paradise engineering is not to be realized by modifying the external world (or at least that's not at the heart of the transformation). Rather, it is about zoning in on the affective texture of experience and finding functional substitutes devoid of misery. Really, in this light, paradise engineering is just extremely advanced interior design.
This Manual is one important step on the journey you can join by realizing you DO have agency in creating the best possible world!

- Foolish Assumptions
Any improvement in life requires work, especially when it's about transcending emotional trauma and building new habits. Psychedelic therapy paradigm, just as neural annealing, requires a grounded approach. Annealing is not always safe, particularly when an individual is vulnerable and emotionally unstable. That's why we are here to do our best and try to work it out.
- How This Book is Organized
- Where to Go From Here
General annealing principle
In relation to his piece "Neural Annealing: Toward a Neural Theory of Everything", Mike writes:
Neural annealing is QRI's unified theory of music, emotional updating, meditation, psychedelics, depression, trauma, a theory that may give us the tools to build a future that's substantially better than the present.

First, energy (neural excitation, e.g. Free Energy from prediction errors) builds up in the brain, either gradually or suddenly, collecting disproportionately in the brain's natural eigenmodes;
This build-up of energy (rate of neural firing) crosses a metastability threshold and the brain enters a high-energy state, causing entropic disintegration (weakening previously 'sticky' attractors);
The brain's neurons self-organise into new multi-scale equilibria (attractors), aka implicit assumptions about reality's structure and value weightings, which given present information should generate lower levels of prediction error than previous models (this is implicitly both a resynchronization of internal predictive models with the environment, and a minimization of dissonance in connectome-specific harmonic waves);
The brain 'cools' (neural activity levels slowly return to normal), and parts of the new self-organised patterns remain and become part of the brain's normal activity landscape;
The cycle repeats, as the brain's models become outdated and prediction errors start to build up again.
Any 'emotionally intense' experience that you need time to process most likely involves this entropic disintegration → search → neural annealing — this is what emotional processing is.
Wireheading done right consists of having wonderful experiences all the time, but in such a way that you never feel compelled to stay where you are for too long. In addition, a good wireheading procedure should also allow you to keep learning useful information about the state-space of consciousness. Wireheading should not imply the end of learning.
(Wireheading Done Right)

- Layman mechanism
Raised energy levels tend to lead to internal unification in our mind or society, like heating and cooling a metal filling holes and dissolving concrete shapes on its surface, like water smoothening rocks
Here we could use description from Harmonic Society?
- Technical mechanism
A system injected with a flow of energy will naturally tend to dissolve local structures, local dualities, nonlinearities, and organize into a more globally interconnected symmetrical consonant cooperative configuration.
Here we could use description from Mike's work?
In mind
- Layman mechanism
Time to shake things up and see where they settle. Brain is like a metal. When it gets used in activities that take effort, you start to feel tearing and inconsistencies in your experience, less symmetries in the metal's (brain's) structure (tissue and activity). The smoother the metal is, the more pleasant it feels. Activities that energize you, that I list below (in the sense that they make you less tired, increase energy parameter of then nervous system), heat up this metal, that starts to melt and fill up the tears and reconfigure the metal into a more symmetrical shape, which then cools down (integration) and you feel more peaceful, calm, relaxed, energized, smooth, happy, in flow, effortless, blissful, joyous, loving, connected, holistic, complete, fullfilled, in the moment,...

- Technical mechanism
https://qri.org/blog/neural-annealing
https://twitter.com/QualiaRI/status/1659991488800100353

https://www.youtube.com/watch?v=_JCaic5Cxms
https://www.youtube.com/watch?v=NXEpMqpl09M
bobby talks explicitly about generalized annealing in soon on this channel
https://youtube.com/watch?v=J4vkKTeT5oU Foundations of Archdisciplinarity: Advancing Beyond the Meta
https://media.discordapp.net/attachments/991777324301299742/1117926568619167784/image.png where I am also in discussion

visualize annealing better with better more quality exact diagrams, vizualize playing with energy and beliefs
visualize global connectivity via nodes

- Concrete processes
- - Meditation
- - - Technical mechanism

https://opentheory.net/2019/11/neural-annealing-toward-a-neural-theory-of-everything/
- - - Layman mechanism
Seeing that frees
- - - Technical techniques
- - - Layman techniques
- - Psychedelics
- - - Technical mechanism
Entropic brain
- - - Layman mechanism
- - - Technical techniques
- - - Layman techniques
- - Meditation plus Psychedelics
- - - Techniques
- - - - Technical
https://www.youtube.com/playlist?list=PLbmYHvGI-YSvnpbh3ppQqcG72lpw4aQdE

- - - - - deconstructive (do nothing, transcendence)
- - - - - - Technical
Any neural operator (psychotool or a substance) that symmetrifies neurophenomenology tends to also increase energy, probably because of disintegration of energy sinks so unsinked energy flows randomly with much less attracting forces, which might lead to seeing visuals as well.
Love or seeing constructedness (illusorynessness) of mental phenomena seems to be an universal dissolver of any mental object or conditioned reactive patterns of behavior canalizations. Or explicit relaxation of any contracted qualia.
- - - - - constructive (love and kindness, meaning crafting, imaginating (compassion deity, love for everything, mandalas))
- - - Energy Raising
- - - - Technical
Energy sources are sensory input, surprise, attention, valence (mental objects or in general states you're attracted to in your aesthetics)
- - - Energy Dampening

- - - - Technical
Energy sink can act as a neural classifier taking sensory data as input and outputing other thoughts or actions.
Low energy depression seems to be damping energy through no learned agency. (hopelessness isnt learned, its that no agency is learned https://neurofrontiers.blog/helplessness-is-not-learned/) Which might be seen as no sensory patters cascading into possible actions, no dopaminogentic motivation. Symmetrical representations can create global cascade of activation of neural representations from just one through more interconnected neural topology (meditation and psychedelics increase that). We can damp energy by getting into gettign stuck into some one solid mental object. One can collapse from deconstructed entropic state back into some highly specialized context to concetrate all that free computational power into one task and use it all there, its asymmetry (high overfitted specialization) can damp overall energy.
Any mental and physical activity that increases energy follows a period of decreased energy, so thats a way to overall dampen energy as well. The stronger the increase, the stronger the decrease tends to be. Gradual increasing can be achieved by slow gradual increase such that neural networks adapt to a new baseline, just like progressive overload in fitness.
- - - Energy Shifting
When it comes to shifting energy from one task to another one, one can in the global context see reason for doing that to generate motivation. We climb valence gradients realized as error reduction slopes of solving the problem better than expected, so depending on our aethtics and current problems we solve in life, we can shift our attention by lubricating those fundamental objective functions in our deepest bayesian priors, which also increases wellbeing through increased sense of meaning and motivation and reduces procrasination.
- - - Neuroacoustics Diagnosis
In the neural annealing paradigm which is rooted not in the neuron doctrine but rather wavefunction realism, emotions are semi-discrete conditional bundles of low(ish) frequency brain harmonics that essentially act as Bayesian priors for our limbic system.
LSD alters brain dynamics in a frequency selective manner. High frequencies increase in energy and have a positive impact on the mood. For a smaller range of low frequencies the activity decreases, and that often corresponds to loss of subjective sense of self and lower emotional arousal. Hence DMN is also embedded in low frequencies. High-frequency harmonics will tend to stop at the boundaries of brain regions, and thus will be used more for fine-grained and very local information processing; low frequency harmonics will travel longer distances.
Under the influence of psychedelics such as LSD more brain states are activated simultaneously which is comparable to more instruments and notes being played within an orchestra. Global connectivity allows for a free flow of energy that connects different regions of the brain.
Pleasure centers serve as tuning knobs of harmonic patterns!
Literally, ‘resonance which happens in the context of the brain and neurons’, or the phenomenon where the brain’s ‘acoustics’ prioritizes certain patterns, frequencies, and harmonics of neural firings over others.
Examples would include a catchy snippet of music or a striking image that gets stuck in a one’s head, with the neural firing patterns that represent these snippets echoing or ‘resonating’ inside the brain in some fashion for hours on end. Similarly, though ideas enter the brain differently, they often get stuck, or “resonate,” as well– see, for instance, Dawkins on memes. In short, neural resonance is the tendency for some patterns in the brain (ideas)

to persist more strongly than others, due to the mathematical interactions between the patterns of neural firings into which perceptions and ideas are encoded, and the ‘acoustic’ properties of the brain itself. (Johnson in Toward a new ontology of brain dynamics: neural resonance + neuroacoustics – Opentheory.net)

From Quantifying Bliss (we can elaborate and fulfil):

I prophesize that we can get an “affective signature” of any brain state by applying an algorithm to fMRI brain recordings in order to estimate the degree of (1) consonance, (2) dissonance, and (3) noise within and across the brain’s natural harmonic states. This will result in what I call “Consonance-Dissonance-Noise Signatures” of brain states (“CDNS” for short) consisting of three histograms that describe the spectra of consonance, dissonance, and noise in a given moment of experience. The algorithm to arrive at a CDNS of a brain state is as follows:
Remove some of the noise in the brain state by applying the technique in Atasoy (2016) and recovering the distribution of the best approximation possible for the harmonics present (you may apply some further denoising on the harmonics when taken as a collective). Then estimate the total dissonance of the combination of harmonics by taking each pair of harmonics and quantifying their mutual dissonance. Finally, subtract the dissonance from “all of the interactions that could have existed” and what’s left ends up being the consonance. This way you obtain a Consonance, Dissonance, Noise Signature.

Quantifying Dissonance

In order to quantify dissonance we use a method that may end up being simpler than what you need to calculate dissonance for sound! E.g. in Quantifying the Consonance of Complex Tones With Missing Fundamentals (Chon 2008) we learn that the human auditory system may at times detect dissonance even when there is no actual dissonance in the input. That is, there are auditory illusions pertaining to valence and dissonance. Based on the missing fundamental one can create ghost dissonance between tones that are not even present. That said, quantifying dissonance in a brain in terms of its harmonic decomposition may be easier than quantifying dissonance in auditory input, precisely because the auditory input (and any sensory input for that matter) contains many intermediary pre-processing steps. The auditory system is relatively “direct” when compared to, e.g. the visual system, but you will still see some basic signal processing done to the input before it influences brain harmonics. The sensory systems, being adapted to meet the criteria of both interfacing with a functioning valence system and representing the information adequately (in terms of the real-world distribution of inputs) serve the function of translating the inputs into usable signals. I.e. frequency-based descriptions, often log-transformed, in order to arrive at valence gradients. For this reason, the algorithm that describes how to extract valence out of a brain state may turn out to be simpler than what you need to predict the hedonic quality of patterns of sound (or sight, touch, etc).

In brief, we propose that we can compute the approximate amount of dissonance between these harmonics by seeing how close they are in terms of spatial and temporal frequencies. If they are within the critical window then they will be considered as dissonant. There is likely to be a peak dissonance window, and when any pair of harmonic states live within that window, then experiencing both at once may feel really awful (to quantify such dissonance more precisely we would use a dissonance function as shown in Chon 2008). If indeed symmetry is intimately connected to valence, then highly anti-symmetrical states such as what's produced by overlapping brain harmonics within the critical band may feel terrible. Remember, harmony is symmetry over time. So dissonance is anti-symmetry over time. It's worth recalling, though, that in the absence of dissonance and noise, by default, what remains is consonance.

The big circle shows the dissonance and consonance for each of the brain harmonics (the black dots surrounding the circle represent the weights for each state). If you want the overall dissonance in a given state, you add up the red-yellow arrows, whereas if you want the total consonance, you add the purple-light-blue arrows. The triangles on the right expand upon the valence diagram presented in Principia Qualia. Namely, we have a blue (positive valence/consonant), red (negative valence/dissonant), and grey (neutral valence/noise) component in a state of consciousness. Each of these components has a spectrum; the myriad textures of emotional states are the result of different spectral signatures for hedonically loaded patterns.

We predict that people on SSRIs will show an enhanced amount of noise in their CDNS. A couple of slides back, this was represented as a higher loading of activity in the grey component of the triangular visualization of a CDNS. Likewise, some drugs will have various effects on the CDNS, such as stimulants inducing more consonance in high frequencies, whereas opioids and hypnotics having signatures of inducing high consonance in the low frequencies.

- - - Information/Valence Trade-Offs
- - - State Stabilization Techniques
- - - Dealing With Limit Cycles
- - - Dealing With Noise-Driven Chaos

Noise can be described as random fluctuations and disturbances leading to deviations from deterministic predictions. It can have both detrimental and beneficial effects, depending on the specific context. In some cases, noise can destabilize the system and lead to erratic behavior or degradation of performance. On the other hand, noise can also play a constructive role, giving rise to phenomena such as stochastic resonance or enhancing the exploration of a system's state space in search of optimal solutions.

- - - Identifying and Addressing Negative Attractors
- - - Harnessing the Negentropy of Peak States

Listening to some big picture memeplex while in a peak state to induce related insight

Important after the annealing session not to engage with low-quality activities. Spend some time integrating the experience. Sleeping also seems to help.
Music
Bienavi assisted Oneness therapy. Improving several current development areas (targeted neuroplasticity). 1) Improving one's acquaintance with the oneness experience, 2) further one's understanding of oneness experience, 3) integrate one's intellectual recognition of oneness into everyday life
Disclaimer: With a trained therapist it is important to stay on the correct ontological track and avoid canalization of paranormal cluster beliefs.
Some interpret holistic feelings of wellbeing as a sort of spiritual signal. In this interpretation, feeling at a very deep level that the world is good, that things fall into place perfectly, that you don't owe anything to anyone, etc. is a sign that you are on the right (spiritual) track. Undoubtedly many people use the (often extreme) positive shift in their valence upon religious conversion as evidence of the validity of their choice. Intense positive valence may not throw Bayesian purists off-balance, but for the rest of the world, blissful experiences are often found as cornerstones of worldviews. (Quantifying Bliss)

Each color represents a given "emotion attractor." At a high level, we can say that whenever you are experiencing an emotion that is, e.g., green you are more likely to transition to other emotions that are also green (relative to what would be expected from choosing an emotion randomly).
It turns out that some emotions behave in interesting ways. Some are what we called "hubs": common stopping points that work as a route between any two colors. For example, "calm" and "tired" are hubs, and they do not give you much information about past or future emotions. Some other emotions behave like 'gateways' in the sense that they tend to indicate a jump from a particular color to another. For example, "hopeful" and "relieved" are two gateway emotions: they work as stepping stones from blue (depressive) emotions to green (positive) ones.
- - - Spectral Considerations: Frequency Transforms
- - - Preventing Information Destruction
- - - Leaving a Breadcrumb: Placing Tethers Between States
- - - - Belief and subagent alignment, dissolution, transformation, reinforcement, cultivation, avoidance
- - - - Technical
- - - - - Mechanisms
https://pharmrev.aspetjournals.org/content/71/3/316 REBUS and the Anarchic Brain: Toward a Unified Model of the Brain Action of Psychedelics
https://psyarxiv.com/zqh4b/ Relaxed, Strengthened, Altered Beliefs Under Psychedelics (REBUS, SEBUS, ALBUS)
Suggested use cases for psychedelics micro/macrodosing assisted psychotheraphy for maladaptive mental patterns making a person unhappy and unable to live by his goals/values

https://astralcodexten.substack.com/p/the-canal-papers The Canalization Papers
- - - - - - Techniques
https://qualiacomputing.com/2023/03/05/aligning-dmt-entities-shards-shoggoths-and-waluigis/

https://www.youtube.com/watch?v=Thd1UYKWXrM&list=PLbmYHvGI-YSvnpbh3ppQqcG72Ipw4aQdE&index=5&t=4s&pp=iAQB The Thermodynamics of Consciousness and the Ecosystem of Agents
Canalized Mr Meeseeks protective subagents - dissolve by showing them counterfactual proof that they dont need to be so defensive in a new environment and that they can relax.
Dissolving or transforming held psychotic (misaligned with other processes or destructive rather than helping) beliefs with showing them opposite evidence, relativizing them away.
Strengthening loving subagents via love and kindness meditation.
Avoiding overly protective subagents by not getting into hostile environments or consume limbic hijacking fear inducing memeplexes on social media or news. Satisfy the objective functions and create compromises in your whole ecosystem of subagents having different priotiries, don't isolate any as then he tends to canalize protective structures hostile against others.
Depressive beliefs such as "Everyone always leaves", "People look at me like they hate me", "I am afraid I will say something stupid" are also dissolvable with counterfactual evidence.
One can create a dialog between the hurt subagent and a "healer" subagent, asking about what it is, what its priorities are, how it was formed, what other beliefs or subagents it depends on
- - - - - Laymen
https://ifs-institute.com/resources/articles/internal-family-systems-model-outline The Internal Family Systems Model Outline
https://www.youtube.com/watch?v=4cN5M_8r3Gc Healing the Exile in Nondual Awareness
- - - Music
- - - - Technical mechanism
Songs are definitely also subjective to high degree as they active consonant memories through contextd ependant associations leading to good transformative trips.
Songs with long global consonant tones are great for global information processing. Extremely fast songs are good at local information processing. Some songs have both in parallel which is great for combined information processing.
Music increases the global flow of energy in the brain and reduces thalamic gating.
Memorised music play VS jazz improvisation serves as an analogy for how the brain "plays" in the sober state VS state on LSD.

- - - - Layman mechanism
Chorus is the most important part when it comes to harmonization. You can't get straight to pleasure and annealing effects. Just as cooling down is gradual, so should warming up be. If the whole song would consist only of chorus, it would be boring. There needs to be a balance. As an analogy, there would be no wave without peaks and troughs.
- - - - Technical techniques
- - - - Layman techniques
- - - Talking to someone you trust
- - - - Technical
More trust, more bayesian prior, aethetics, goal synchronization, leads to more efficient belief transmission, more efficient updating of maladaptive priors. Ideal setting definitely depends on the cultural aethetics of the client - some people are raised religious, some secular, some think more in mechanistic terms, some think more in fantasy narratives and so on.
- - - Sauna

- - - - Technical mechanism
Added cardiovascular annealing
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Sport
- - - - Technical mechanism
Added cardiovascular annealing
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Massage
- - - - Technical mechanism
Added annealing and symmetrification of muscular topology that propagates to annealing other systems in the body
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Ketamine
- - - - Technical mechanism
Instead of dissolution of fundamental beliefs' structure leading to entropic disintegration and annealing, they probably turned off by inhibition which also leads to cascading entropic disintegration of codependent beliefs releasing free energy leading to annealing
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Big picture thinking
- - - - Technical mechanism
Lubricating by interacting, strengthening or transforming fundamental priors such as ontology, morals or any other philosophical assumptions about the world or society and so on
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Sex
- - - - Technical mechanism
Combined with very evolutionary deep interconnecting with other person anneals us to the intentional mental object of the other person
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Nondual philosophy
- - - - Technical mechanism
Nondual philosophy leads to the dissolution of reified concrete ontological priors which leads to entropic disintegration of concrete structures below i tthat depend on it in a domino effect on the cortical hierarchy where each top layer coarsegrains the lower one
This relativism is very good for dissolving any dissonant priors.

But: I suspect that insight cycle seems to be result of disintegration of neural networks that used to generate positive valence neural activity (conditioned consonance and dissonance generators linked to pain and pleasure circuitry https://twitter.com/SooAhnLee/status/1668040786368184320) by overflowing it with entropic nonsymbolic activity that it dissolves under the pressure. The search for a new stable configuration while in disintegrated state is a dark night of the soul. Finding a new more global interconnected internally aligned symmetrical configuration of the neural network topology that efficiently does stress dissipation and allows overall uncontracted brain activity corresponding to the phenomenology of qualia just being there without mutual dissonant inteference then leads to equaminity. Usually this isnt overnight but a process that takes time and I sense that do nothing meditation and love and kindness are best ways to do it.
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques

- - - Stimulants
- - - - Technical mechanism
Stimulants add convergent energy strengthening beliefs and narrowing attention for more efficient concrete task solving and annealing concrete solution
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Sleep deprivation
- - - - Technical mechanism
Sleep deprivation releases stimulantlike chemicals plus as brain as low overall stability leads to entropic disintegration of structures leading to annealing combined with overall lower energy state from tiredness
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Fast energy foods
- - - - Technical mechanism
Fast glucose metabolic energy leads to more all kinds of information processing including stimulantlike concrete or psychedelicslike dissolving annealing at the cost of long term glucose oscillatory treadmill
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - BDSM
- - - - Technical mechanism
Disadvantages are reinforcing dissonant priors, which might be consonant locally but dissonant globally
- - - - Layman mechanism- - - - Technical techniques- - - - Layman techniques
- - - Meaning
Meaning is the interconnectedness with ourselves, others, the world and everything, which is cultivatable by other annealing activities and collective rituals and reminders that we’re one, which leads to frequent collective annealing, symmetrical neural and societal dynamics and thus wellbeing
- In society
- - Common thinking
- - - Technical
Some linguistic or abstract mental construction is seen as true if many observes agree on its validity using different epistemological strategies, beliefs present in a population can be disrupted or reinforced or novel ones created by mutating or creating a new belief that is compatible with the culture's current aethetics (superstructure framing priors that are preffered according to their consonance with the whole) and spreading it succesfully darwinianly.
- - Common threat, vision
- - - Technical mechanism
Added cardiovascular annealing
- - - Layman mechanism
- - - Technical techniques
- - - Layman techniques

Keep in mind: Overview of differences between QRI and other consciousness theories.
Qualia Formalism: every conscious experience corresponds to a mathematical object such that the mathematical features of that object are isomorphic to the phenomenology of the experience,

Valence Structuralism: pain and pleasure are structural features of the mathematical object that corresponds to an experience such that they can be read off from this object with the appropriate mathematical analysis,(Lehar: emotions → vibrations, geometry)
Symmetry Theory of Valence: the mathematical feature that corresponds to pain and pleasure are the object's symmetry and anti-symmetry, namely, its invariance upon the transformations the object is undergoing
Duality between Computation (belief propagation) and Implementation (Resonance Network). How the implementation level based on principles of harmonic resonance and the STV underlie predictive processing
CDNS (resisting VS equanimity) → not just about maximising accuracy but also reducing dissonance (getting rid of Free Energy)
Neural Annealing is more than a metaphor (Tweet)
Symmetry and Harmony in Sense Modality
Energy of consciousness, Hamiltonian (more energy, more brightness, curvature, and velocity)
Usually researchers themselves are not exposed to exotic states of consciousness, and as such, what they write and theorise about comes exclusively from second-hand accounts.
Focus on the think-tank model.

Primary Literature
Academic
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Discussion.
1. Think of the differences between annealing and canalization. How to avoid/fix canals? Examples can cover both social, cultural, and psychological contexts. Our main focus is psychedelic therapy.

1.1. Think of situations that lead to maladaptivity in canalization and how to prevent them. For example, psychotherapists can use tests to determine a client's attachment style which is important for understanding anxious/avoidant/disorganized emotional background and the way that they make assumptions about the world ("Everyone always leaves", "People look at me like they hate me", "I am afraid I will say something stupid", etc.). Previously diagnosed disorders and traumas should be taken into account and thought of with caution.
*Presumably, emotions are embedded within the low-frequency range, which is the one that can travel through the anatomical obstacles within the brain, while high-frequency harmonics tend to stop at the boundaries of brain regions. These emotions act as Bayesian priors for our limbic system.
Love or seeing constructedness (illusorynessness) of mental phenomena seems to be an universal dissolver of any mental object or conditioned reactive patterns of behavior canalizations. Or explicit relaxation of any contracted qualia.
Canalized Mr Meeseeks protective subagents - dissolve by showing them counterfactual proof that they dont need to be so defensive in a new environment and that they can relax.
Dissolving held psychotic (misaligned with other processes or destructive rather than helping) beliefs with showing them opposite evidence, relativizing them away.
Avoiding overly protective subagents by not getting into hostile environments or consume limbic hijacking fear inducing memeplexes on social media or news. Satisfy the objective functions and create compromises in your whole ecosystem of subagents having different priotiries, don't isolate any as then he tends to canalize protective structures hostile against others.
Depressive beliefs such as "Everyone always leaves", "People look at me like they hate me", "I am afraid I will say something stupid" are also dissolvable with counterfactual evidence. One can create a dialog between the hurt subagent and a "healer" subagent, asking about what it is, what its priorities are, how it was formed, what other beliefs or subagents it depends on
Some linguistic or abstract mental construction is seen as true if many observes agree on its validity using different epistemological strategies, beliefs present in a population can be disrupted or reinforced or novel ones created by mutating or creating a new belief that is compatible with the culture's current aethetics (superstructure framing priors that are preffered according to their consonance with the whole) and spreading it succesfully darwinianly.
2. We are aware of many examples/techniques for energy raising. Discuss techniques that can be applied for energy dampening and energy shifting. (For example, think of examples of how to manipulate energy sinks and sources by applying what we know from the STV. Which other activities/techniques can you think of? Discuss the role of attention!)
Any neural operator (psychotool or a substance) that symmetrifies neurophenomenology tends to also increase energy, probably because of disintegration of energy sinks so unsinked energy flows randomly with much less attracting forces, which might lead to seeing visuals as well.
Energy sink can act as a neural classifier taking sensory data as input and outputing other thoughts or actions. Low energy depression seems to be damping energy through no learned agency. (hopelessness isnt learned, its that no agency is learned https://neurofrontiers.blog/helplessness-is-not-learned/) Which might be seen as no sensory patters cascading into possible actions, no dopaminogentic motivation. Symmetrical representations can create global cascade of activation of neural representations from just one through more interconnected neural topology (meditation and psychedelics increase

that). We can damp energy by getting into gettign stuck into some one solid mental object. One can collapse from deconstructed entropic state back into some highly specialized context to concetrate all that free computational power into one task and use it all there, its asymmetry (high overfitted specialization) can damp overall energy.
Any mental and physical activity that increases energy follows period of decreased energy, so thats a way to overall dampen energy as well. The stronger the increase, the stronger the decrease tends to be. Gradual increasing can be achieved by slow gradual increase such that neural networks adapt to a new baseline, just like progressive overload in fitness.
When it comes to shifting energy from one task to another one, one can in the global context see reason for doing that to generate motivation. We climb valence gradients realized as error reduction slopes of solving the problem better than expected, so depending on our aethtics and current problems we solve in life, we can shift our attention by lubricating those fundamental objective functions in our deepest bayesian priors, which also increases wellbeing through increased sense of meaning and motivation and reduces procrasination.
*Thalamic gating serves attention. "Cleansing the doors of perception": psychedelics disrupt thalamic gating, they excite neurons in the PFC and desynchronize their collective ability to represent coherent self-referential beliefs. Thalamus is especially rich with 5-HT2A receptors found to be important for distinguishing between the quality of serotonergic impact of SSRIs and psychedelics.
3. How important do you consider the role of positive expectancy in psychedelic therapy? Should there be a chapter dedicated to the creation of a positive and trustworthy relationship between therapist and client/shaman and tripper, and tripper and the drug? What kind of setting do you find ideal?
Yes, more trust, more bayesian prior, aethetics, goal synchronization, leads to more efficient belief transmission, more efficient updating of maladaptive priors. Ideal setting definitely depends on the cultural aethetics of the client - some people are raised religious, some secular, some think more in mechanistic terms, some think more in fantasy narratives and so on.
4. Role of music in psychedelic therapy. For example, the global flow of energy in the brain and reduced thalamic gating. Memorised music play VS jazz improvisation serves as an analogy for how the brain "plays" in the sober state VS on LSD. Could lower-frequency instruments such as hearing the bass-line play an important role in information propagation?

Increased low-frequency brain responses to music after psilocybin therapy for depression - ScienceDirect
Songs with long global consonant tones are great for global information processing. Extremely fast songs are good at local information processing. Some songs have both in parallel which is great for combined information processing.
5. Good meditation objects. For example, cute things, breath as the most secular meditation object, tuning into empty space. (Mind the cultural differences.) Alternatively, do you have an interesting annealing habit?

6. It seems that high-frequency harmonics are in charge of higher cognitive functions, while lower frequencies store information and priors that activate the limbic system and DMN (Default Mode Network). This is widely discussed by Atasoy. Think of techniques that can be used for belief updating.
There are lots of ideas but I think we should come up with as many practical techniques as we can.

Also in general to just enable people for having more "surprising" moments in daily life, it seems that dedication to building knowledge is important. This doesn't have to be academic knowledge, but also philosophical. Many people are not equipped to understand how it's done just by hearing or reading instructions. It needs to be trained! It could be cool if we could find approaches for people with all sorts of different backgrounds.

Mapping out.
Try to map the NA frame to those experiences of annealing in our lives: what corresponds to the heating up phase, neural search, cooling down, etc.
What was surprising, what was high energy (source) and what was the opposite: physiological symmetries, world-models, preconceptions, recognized patterns (sinks).
Additionally, map onto the frame of energy sinks and sources.
Example, Libor:
Libor's favorite deconstructive meditation algorithm for ultimate annealing currently:
Dissolve concrete local stabilizing structural energy sinks such as thoughts, intentions, imagery, concepts, ideas, abstract thought, conditioned classified objects as constructed subsets of raw sense data with added abstract structure and feelings about them, percieving raw sensations themself, by tuning into quiet vast still spacious empty boundaryless centerless awareness, empty awake space, quieting the mind. See the emptiness (dreamlikeness) and dissolve global fundamental stabilizing stuctural energy sinks behind everything that form the sense of ground in experience by classifying and freeying them by for example spacious lightness - sense of doer, attention, watcher, self and other distinction, time, space, boundary, center, coordinates, background, knowing, local and global being, truths, ontology, somethingness, perception, nonperception, neither perception nor not perception, trancending the transcendence itself, any "fundamental" classifications, dissolve any logic, any distinctions, any structures in general. Destabilizing any codependently mutually (self)stabilizing clusters of symbolic or intuitive processes by raw not knowing and looking without concepts by generating stochasticity. After this deconstruction into unified stochastic void when everything starts reconstructing, throw in infinite love, kindness, caring, connectedness, healing, light, meaningfulness, protecting, cherishing, safety, comfort, smoothness for all mental objects that emerge in any reconstructed emerged dual category. Dissolving entropic chaotic activity is heating up by blowing up existing stabilizing structures that act as energy sinks, unifying into a global conceptless energy sink full of lots of local symmetries thanks to more small world networkedness, more global interconnectedness, collapsed local hiarchical organizations, that can be dissolved as well with just free energy swimming in experience not getting catched by anything
Neural search while cooling down is reconstructing of the internal world simulation afterwards
Examples, Beata:
Focus on tuning into flow states. What are the most common thoughts, concepts, activities, and ideas that make me curious, energised, and motivated? By understanding it's a misconception to assume that the interests of other people will be mine as well, I have started to prioritise activities that focus less on the amount of socialisation, and more on the subjective quality of an experience. I can point out several groups:
1) How to motivate movement? In the context of annealing, this includes entering flow states while running, stretching, and exercising while listening to music. Music has the power to evoke strong emotions and influence arousal levels. Different types of music can induce a

range of emotions, such as happiness, excitement, sadness, or relaxation. The emotional response triggered by music can influence motivation by modulating our mood, energy levels, and overall willingness to engage in activities.
2) How to enrich the subjective experience? Reading books that seem educational or challenging, opening new ways of thinking about the world, watching art films in the right set and setting, either alone or with people.
3) How to strengthen relationships, love, and social belonging? Engage into deep, passionate and explorative conversations with friends or like-minded people. Do something meaningful together.
4) Transcendental love. Doing something demanding that contributes to cohesion and wellbeing of the local community. For example, organising a non-profit event or a festival that focuses on providing safe space where people can connect and have the opportunity to present their work/art/hobbies.

Libor: I put my existing and newly written annealing related text from my writings with references linked in the writings:
https://qualiaresearch.miraheze.org/wiki/Unified_Happiness_SuperMetaEngineering_using_Computational_MetaNeuroPsychological_Free_Energy_Principlal_Annealed_Topological_Biochemical_Electromagnetic_Predictive_Consonant_Symmetrical_Field-like_Ocean-like_Groundless_Ground_Gestalt
Key literature:
Andres Good Vibes: The Harmonics of Psychedelics & Energetic Healing
https://www.youtube.com/watch?v=NXEpMqpl09M
QRI's resonance network formalism https://www.youtube.com/watch?v=45tG1oVigVo
Harmonic Gestalt by Lehar https://www.youtube.com/watch?v=LJiXTCbFtu0
QRI's Hypothesized duality between belief and resonance network, neural annealing and symmetry theory of valence https://qri.org/blog/neural-annealing
https://qri.org/blog/symmetry-theory-of-valence-2020
Connectome harmonics https://www.nature.com/articles/ncomms10340
Topology of biophysical electrochemical brain activity (EM field)
https://www.youtube.com/watch?v=g0YID6XV-PQ
Safron's hypothesized correspondences between levels of analysis
https://www.mdpi.com/1099-4300/23/6/783/htm
Shamil's bayesian brain and meditation https://www.youtube.com/watch?v=Eg3cQXf4zSE
Carhart harris's psychopathology and plasticity
https://www.sciencedirect.com/science/article/pii/S0028390822004579
Quantum formalism of FEP across all physical systems, Inner screen FEP formalism of consciousness that tackles computational level while QRI looks at implementational level, functionalist bridging of physics and neuroscience: https://psyarxiv.com/6afs3
https://www.youtube.com/watch?v=mitw2XcXY98
https://onlinelibrary.wiley.com/doi/full/10.1002/prop.202200104
https://www.sciencedirect.com/science/article/pii/S0079610722000517
Mike Johnson's future work on how active inference might be implemented in the nervous system, related: https://www.nature.com/articles/s41562-022-01516-2
https://link.springer.com/article/10.1007/s42113-019-00032-3
Importance of symmetries https://royalsocietypublishing.org/doi/10.1098/rsfs.2023.0015
Meditation and the Predictive Brain | Ruben Laukkonen
https://www.youtube.com/watch?v=vBzag-8USns

Multicontextual multilevel integrated unity of neuroscience
https://onlinelibrary.wiley.com/doi/10.1111/ejn.15990
General annealing principle
General annealing principle: A system injected with a flow of energy will naturally tend to dissolve local nonlinearities and organize into a more globally symmetrical consonant cooperative configuration
Tempature parameter in general induces diffusion in a system
Examples: psychedelics, meditation, sport, sauna, cold showers, fast energy foods, nondual philosophy, sex, praying, breath work in neurophenomenology, utopian or dystopian vision vector in the memeplexian space of society - collective mental frameworks (movements, cultures, religions, ideologies, philosophies) (Team Consciousness, Hedonistic Imperative, metamodern spirituality, transhumanism, globalism, marxism, Christianity, Buddhism), common existencial risks, threat (misligned artificial general superinteligence, rival (Europe unifying against Russia), climate change, global nuclear war, meaning crisis, Gods)
Many activities raise the energy parameter of the brain that leads to this overall symmetrification.
My most efficient annealing techniques that I combine with eachother. Each of them raise the energy parameter of experience and tend to dissolve local dualistic structures in favor of more global interconnected structure that manifest as high level connections insights and overall sense of less blocked experience, and also satisfies other kinds of basic needs:
Loving do nothing deconstructive meditation
Walking and running in nature
Reading/Listening to big picture thinking
Hot shower/bath
Talking about the depths of my mind with myself or with others or by writing
Deep slow meditative mindful tantric interaction with other people
Psychedelics, shrooms, LSD or 5-MeO-DMT - Shrooms is more dissolving but still full of interesting loving complexity, LSD focuses on concrete task more such as learning, 5-MeO-DMT just dissolves everything beyond concepts and tasks
Equaminity as a cultivatable skill of learning to not interfere with what is by acceptance seems to be a special case of symmetrification and symmetrifications in general seem to cultivate wellbeing if they make long lasting symmetrifying changes. Some symmetrifications such as fast sugar come at the cost of possible overall desymmetrification when taken in a bigger picture using neurobiology and what it affects in time, considering its consequences. Sther symmetrifications that actually cultivate stable kinds of symmetrifications may be love and kindness, any kinds of dissolutions (sense of truths, center, space, time, direction - stage theory of enlightenment), finding some concrete direction, simplified good enough for nonscientific purpose model of the world, truth seeking thats constantly open with the belief that one will never have a complete model of the world’s complexity, or some kind of concrete meaning in life. (tho here i think the best kind of symmetrification is to not have any kind of symbolic meaning as not clinging to concrete mental constructions and constructing conditioned happiness seem to an even bigger symmetrification) Psychedelics can also dissolve the rigid self model but the organism as a defence mechanism might create even more rigid giant self model that generates even more suffering through its density, but also not.
Maybe neural annealing literature in laymen language in meditative/psychedelics/breathwork guides
Chapters

Energy Raising
Letting go of concrete processes by finding them via noting and dropping them to induce free stochastic activity, by accepting what is, by dissolving them, by noticing global relaxation, assistable by psychedelics or other activities i mention below
[...] as ecosystems grow and develop, they should increase their total dissipation, develop more complex structures with more energy flow, increase their cycling activity, develop greater diversity and generate more hierarchical levels, all to abet energy degradation (Schneider)
There are several activities and experiences that can bring about subtle surprises and energize people in their everyday lives. How to extract more free energy? This can depend on the Big Five!
What else is variable between people? As it turns out, the transition patterns of core affect are related to personality factors. People's level of variance in the valence dimension is an important component of neuroticism. Although most neurotics tend to hang out in low-valence states, there are indeed very happy neurotics whose problem is not that they feel bad, but that great feelings are too short lasting and unpredictable. It is the unpredictability of valence rather than its absolute value that results in the coping mechanisms typical of this dimension. Likewise, higher variability in arousal is a component of extraversion, SEE I AM SCREAMING NOW (for example). Openness to experience can be understood in terms of novelty-triggered increases in valence, so that more open individuals are more likely to experience euphoria of all kinds when learning new information relative to people who describe themselves as conventional. Conscientious individuals feel very rewarded when they complete a laborious task (but may experience more intense shame if they do not finish it on time). Agreeableness is undeniably connected to a positive perception of other people. If one feels that others are right and deserve to exist one is more likely to cooperate. The way to have positive perceptions of others is to increase the hedonic tone of the interpersonal representations[14]. In brief, core affect dynamics can be used to capture otherwise hard-to-describe properties of the various personality factors. They each have a signature behaviour in the valence-arousal space. (Wireheading Done Right)

Separate fast from slow euphoria.

Examples:
Random Acts of Kindness: Engaging in small acts of kindness, such as helping a stranger or surprising a friend with a thoughtful gesture, can create positive surprises for both the giver and the recipient. These acts introduce uncertainty and can lead to a boost in mood and a sense of connectedness.
Exploring New Places: Visiting unfamiliar locations, whether it's a new neighborhood, a park, or a café, can bring about subtle surprises and energize people. It exposes them to novel experiences, stimulating their senses and sparking curiosity.
Trying New Foods: Sampling different cuisines or experimenting with new recipes can provide pleasant surprises for the taste buds. Exploring the flavors and textures of unfamiliar dishes introduces uncertainty and can lead to delightful culinary discoveries.
Learning Something New: Engaging in continuous learning, whether it's through reading a book, taking up a new hobby, or acquiring a new skill, introduces uncertainty into one's knowledge base. The process of discovery and surprise that comes with acquiring new knowledge can be invigorating and energizing.

Engaging in Creative Expression: Participating in activities like painting, writing, or playing a musical instrument allows for self-expression and can result in unexpected outcomes. The process of creation involves uncertainty, as the end result may differ from initial expectations, bringing about positive surprises and a sense of fulfillment.
Connecting with Others: Engaging in meaningful conversations, attending social gatherings, or joining communities centered around shared interests can lead to subtle surprises and energize people. Meeting new people, hearing diverse perspectives, and forming unexpected connections can introduce novelty into daily life.
Embracing Spontaneity: Allowing oneself to be open to spontaneous experiences and unplanned adventures can lead to surprising and energizing moments. Breaking away from routine and embracing the unknown can bring about positive surprises and a renewed sense of vitality.
Add examples from Harmonic Society.
Conceptual: Novelty, surprise, learning, fascination, beauty.
Practical: Dancing, laughing, massaging, eyegazing, breathing together. Warm colours VS cold colours (warming up VS cooling down and relaxing).
Psychedelic energy energizes whatever you pay attention to.
Cultivate and increase general knowledge and higher understanding of the Self and the world. This will in general allow higher rates of surprise. Complexity of the internal generative model of the world.
Annealing is an intelligent and efficient way of problem solving that avoids manual organisation of individual atoms within a lattice, it acts globally. We're heating up on a daily basis by not even noticing it, but how to train this?
Choosing the right annealing schedule requires intelligence, but the organisation happens on a physical level - physics solves the computational problem for you.
Criticality:
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.
…primary consciousness rests on more metastable dynamics than secondary consciousness, i.e., brain sub-states are less stable in primary consciousness. Thus, by implication, a broader repertoire of transient states may be visited in primary consciousness because the system is closer to criticality-proper. Moreover, it is the ability of psychedelics to disrupt stereotyped patterns of thought and behavior by disintegrating the patterns of activity upon which they rest that accounts for their therapeutic potential. This principle implies that a brain at criticality may be a "happier" brain.
(The entropic brain: a theory of conscious states informed by neuroimaging research with psychedelic drugs - PMC (nih.gov))
Atasoy also speaks of LSD states as important for approaching criticality.
Elaboration on why criticality is important:
Criticality is often considered a desirable state in a dynamic system because it exhibits a balance between stability and adaptability. In criticality, a system operates at the edge of chaos, where it can quickly respond to external stimuli and adapt to changing conditions. Here are a few reasons why criticality is often seen as advantageous:

Responsiveness: Critical systems are highly sensitive to inputs and can rapidly propagate signals or information across the system. This responsiveness enables quick reactions to changes and efficient transmission of information.
Adaptability: Critical systems have the capacity to self-organize and reconfigure in response to perturbations. They can exhibit emergent behaviors and adapt their structure or behavior to optimize performance or address challenges.
Information Processing: Critical systems are effective at processing and integrating information from different sources. Due to their sensitivity to small perturbations, they can extract relevant information from noise and filter out unnecessary details.
Resilience: Critical systems often display a high degree of robustness and resilience. They can absorb shocks or disturbances without undergoing catastrophic failures. Criticality allows systems to recover from perturbations and return to a state of relative stability.
Exploration and Innovation: Criticality encourages exploration and innovation within a system. It fosters the emergence of new patterns, behaviors, and solutions. The inherent variability and adaptability in critical systems can lead to the discovery of novel strategies and creative responses.
Optimal Balance: Criticality represents a delicate balance between order and disorder, allowing for the most efficient use of resources. It maximizes the system's capacity to process information, optimize performance, and adapt to changing conditions without sacrificing stability.

Energy Dampening
Coming back to our usual operating system with its usual processes, perhaps edited by the dissolving transforming experience, living in concrete structures without temperature mediated plasticity
Landing in a familiar place, relaxation techniques, focus on breath
Controlling and reducing unwanted oscillations
De-tuning tight couplings by noting and knowing
Taking away the Low-FQ
Adding noise
Energy Shifting
Psychedelic Thermodynamics: Sources/Sinks
Attention/Pattern recognition
Phenomenal objects vibration
Neuroacoustics Diagnosis
Connectome Harmonics as a building block of neural activity. Different read-out of the same underlying process which is neural activity. Instead of looking at space and time, CSWH focuses on frequencies. Process not very different from decomposing a piece of music into its notes (Atasoy, 2017); Fourier transform (should we explain it?)
Dynamics: Neurophysiology
Space: Networks
Time: Oscillations
Anatomy: Connectome
LSD alters brain dynamics in a frequency selective manner. High frequencies increase in energy and have a positive impact on the mood. For a smaller range of low frequencies the activity decreases, and that often corresponds to loss of subjective sense of self and lower emotional arousal. DMN is also embedded in low frequencies.

More brain states are activated simultaneously which is comparable to more instruments and notes being played within an orchestra.
Pleasure centers serve as tuning knobs of harmonic patterns.
Reorganisation of the brain at the edge of chaos - criticality. Relation to entropy, as criticality is between chaos and order.
High-frequency harmonics will tend to stop at the boundaries of brain regions, and thus will be used more for fine-grained and very local information processing; low frequency harmonics will travel longer distances. Emotions: semi-discrete conditional bundles of low(ish) frequency brain harmonics that essentially act as Bayesian priors for our limbic system. (from The Neuroscience of Meditation)
Future: relate specific connectome signatures to psychiatric disorders, further step personality traits (Atasoy, Singing the Mind)

Literally, ‘resonance which happens in the context of the brain and neurons’, or the phenomenon where the brain’s ‘acoustics’ prioritizes certain patterns, frequencies, and harmonics of neural firings over others.
Examples would include a catchy snippet of music or a striking image that gets stuck in a one’s head, with the neural firing patterns that represent these snippets echoing or ‘resonating’ inside the brain in some fashion for hours on end.[1] Similarly, though ideas enter the brain differently, they often get stuck, or “resonate,” as well– see, for instance, Dawkins on memes. In short, neural resonance is the tendency for some patterns in the brain (ideas) to persist more strongly than others, due to the mathematical interactions between the patterns of neural firings into which perceptions and ideas are encoded, and the ‘acoustic’ properties of the brain itself. (Johnson in Toward a new ontology of brain dynamics: neural resonance + neuroacoustics – Opentheory.net)

From Quantifying Bliss (we can elaborate and fulfil):

I prophesize that we can get an “affective signature” of any brain state by applying an algorithm to fMRI brain recordings in order to estimate the degree of (1) consonance, (2) dissonance, and (3) noise within and across the brain’s natural harmonic states. This will result in what I call “Consonance-Dissonance-Noise Signatures” of brain states (“CDNS” for short) consisting of three histograms that describe the spectra of consonance, dissonance, and noise in a given moment of experience. The algorithm to arrive at a CDNS of a brain state is as follows:
Remove some of the noise in the brain state by applying the technique in Atasoy (2016) and recovering the distribution of the best approximation possible for the harmonics present (you may apply some further denoising on the harmonics when taken as a collective). Then estimate the total dissonance of the combination of harmonics by taking each pair of harmonics and quantifying their mutual dissonance. Finally, subtract the dissonance from “all of the interactions that could have existed” and what’s left ends up being the consonance. This way you obtain a Consonance, Dissonance, Noise Signature.

Quantifying Dissonance

In order to quantify dissonance we use a method that may end up being simpler than what you need to calculate dissonance for sound! E.g. in Quantifying the Consonance of Complex Tones With Missing Fundamentals (Chon 2008) we learn that the human auditory system may at times detect dissonance even when there is no actual dissonance in the input. That is, there are auditory illusions pertaining to valence and dissonance. Based on the missing fundamental one can create ghost dissonance between tones that are not even present. That said, quantifying dissonance in a brain in terms of its harmonic decomposition may be easier than quantifying dissonance in auditory input, precisely because the auditory input (and any sensory input for that matter) contains many intermediary pre-processing steps. The auditory system is relatively "direct" when compared to, e.g. the visual system, but you will still see some basic signal processing done to the input before it influences brain harmonics. The sensory systems, being adapted to meet the criteria of both interfacing with a functioning valence system and representing the information adequately (in terms of the real-world distribution of inputs) serve the function of translating the inputs into usable signals. I.e. frequency-based descriptions, often log-transformed, in order to arrive at valence gradients. For this reason, the algorithm that describes how to extract valence out of a brain state may turn out to be simpler than what you need to predict the hedonic quality of patterns of sound (or sight, touch, etc).

In brief, we propose that we can compute the approximate amount of dissonance between these harmonics by seeing how close they are in terms of spatial and temporal frequencies. If they are within the critical window then they will be considered as dissonant. There is likely to be a peak dissonance window, and when any pair of harmonic states live within that window, then experiencing both at once may feel really awful (to quantify such dissonance more precisely we would use a dissonance function as shown in Chon 2008). If indeed symmetry is intimately connected to valence, then highly anti-symmetrical states such as what's produced by overlapping brain harmonics within the critical band may feel terrible. Remember, harmony is symmetry over time. So dissonance is anti-symmetry over time. It's worth recalling, though, that in the absence of dissonance and noise, by default, what remains is consonance.

The big circle shows the dissonance and consonance for each of the brain harmonics (the black dots surrounding the circle represent the weights for each state). If you want the overall dissonance in a given state, you add up the red-yellow arrows, whereas if you want the total consonance, you add the purple-light-blue arrows. The triangles on the right expand upon the valence diagram presented in Principia Qualia. Namely, we have a blue (pos itive valence/consonant), red (negative valence/dissonant), and grey (neutral valence/noise) component in a state of consciousness. Each of these components has a spectrum; the

myriad textures of emotional states are the result of different spectral signatures for hedonically loaded patterns.
we predict that people on SSRIs will show an enhanced amount of noise in their CDNS. A couple of slides back, this was represented as a higher loading of activity in the grey component of the triangular visualization of a CDNS. Likewise, some drugs will have various effects on the CDNS, such as stimulants inducing more consonance in high frequencies, whereas opioids and hypnotics having signatures of inducing high consonance in the low frequencies.

Information/Valence Trade-Offs
Experiencing ultimate oneness through deconstructing all mental models
Free energy principle: modelling in the middle way between accuracy and complexity, granularity and simplicity, unity and disnstinction

The task of paradise engineering is not to be realized by modifying the external world (or at least that's not at the heart of the transformation). Rather, it is about zoning in on the affective texture of experience and finding functional substitutes devoid of misery. Really, in this light, paradise engineering is just extremely advanced interior design.
Most animals do indeed care a great deal about the valence of their own consciousness; after all, the motivational power of the pleasure-pain axis is the very reason why evolution recruited conscious valence to begin with. (Wireheading)
Wireheading done right consists of having wonderful experiences all the time, but in such a way that you never feel compelled to stay where you are for too long. In addition, a good wireheading procedure should also allow you to keep learning useful information about the state-space of consciousness. Wireheading should not imply the end of learning. (Wireheading)
STV: Valence measured by CDNs (Consonance-Dissonance-Noise Signature), affective signature
Noether's theorem: 'Every symmetry in a system's equations corresponds to a conserved quantity in that system (and vice-versa).'
[DMT Energy-Information Diagram]
Apply complexity and entropy
Internal conditions generate the self
"Integration is the measure of how much the information in a complex system is dependent on the interconnections between the parts of the system."
(Goff, 2019) Link to global connection (IIT) + psychedelics. Information flow.
Quantifying Bliss:
A point to make here is that predicting "pure harmonics" on psychedelics (evidently simple and ordered patterns), would seem to go counter to the recently accrued empirical data concerning entropy in the tripping brain.** But we also know that the psychedelic brain can produce ridiculously self-similar near-informationless yet highly intense moments of experience preceded by a symmetrification process. Indeed, there are several symmetric attractors for the interplay of awareness and attention at various levels of "consciousness energy" and quality of mood. These states, in turn, not only are hedonically charged, but also allow the exploration of high-energy qualia research (since the implicit symmetry provides an energy seal). Highly energetic states of consciousness can be encapsulated in a highly symmetrical network of local binding.

Affective vision (Luiz Pessoa): How does emotional content shape visual perception and brain responses?

State Stabilization Techniques
Clusters of bayesian beliefs that selfreinforce eachother by them being tautological and unfalsifiale (usually present in ideologies) or reinforced by picking through relevance realization patterns in sensory data that reinforce them (generalized confirmation selection bias)
Meidtation
Dealing With Limit Cycles
Define Limit Cycles:
Acceptance theraphy dissolves dissonant assumptions made of a clusters of internally consistent stable selfreinforcing bayesian beliefs with for example the structure "i am anxious therefore I suffer" by dissolving "suffering" part and rest follows through interdependence. This overall dissolution of nonlinearities overall symmetrifies, smoothens the neurophenomenological topology resulting in less blocked flowstate.
Many priors are interconnected and codependent, so when you transform or dissolve one, many others can follow. Present counterfactuals in vulnerable memory reconsolidation phase where statistical hull is weakened through dialog activation to transform it effectively. Beta blockers increase vulnerability. MDMA adds additional love.
Dealing With Noise-Driven Chaos
Noise: external influences, random fluctuations and disturbances leading to deviations from deterministic predictions. Noise can have both detrimental and beneficial effects, depending on the specific context. In some cases, noise can destabilize the system and lead to erratic behavior or degradation of performance. On the other hand, noise can also play a constructive role, giving rise to phenomena such as stochastic resonance or enhancing the exploration of a system's state space in search of optimal solutions.

Finding and through repeated annealing reinforce some bayesian belief that succesfully compresses the generated entropy by reducing uncertainity about sensory data through predicting them in given domain where noise and chaos is generated (for example to solve existential question through stabilizing philosophical answers). Alternatively dissolve the mind so often that those questions just stop existing and them “being true” stops making intuitive sense as truth then feels like it goes beyond concepts and embrace living in stochastic heavens - seems to be more symmetrical metastable baseline state achievable by deconstructive meditation!

Identifying and Addressing Negative Attractors

Negatively valenced metastable configuration of the neurophenomenological topological predictive hierarchy, generating bayesian fundamental priors like emotions ontologies lenses initial assumptions, have lots of stress, lots of asymmetries: sense of blockages, spikiness, disconnection, dissonance, error signals, hard information propagation, absence of smoothness, flow, cooperation
Psychopathologies are characterized by oscillopathy, by isolation of parts, by beliefs not modelling sensory data accurately, by stuckness in dissonant metastable attractors in nervous system configurations.

PTSD, repressed trauma is isolated dissonant subagents, cluster of bayesian beliefs, population of neurons, with very strong statistical hull, sending one directional signal of the belief of something being wrong, being hurt, generating anxiety or depression, in the background to the other processes trying to mind their own business, usually easily triggerable but hard to transform their structure, but its possible with overtime counterfactual data using internal family systems that creates dialogs between the hurt parts and updates them this way to a more pleasant configuration.
Depression is learned, formed by memories, stable helplessness/hopelesness prior from repeated failures in reducing uncertainity and solving basic needs.
High energy depression is rigid stuckness in dissonant negative valence metastable emotional prior. Nervous system prostesting, fighting with force.
Low energy depression as stuckness in local minima not supporting global neural activity by asymmetrical topology that doesn't allow efficient flexible information propagation. Nervous system giving up.
annealing schedules
Stressed or stressed out? Stressed or stressed out: What is the difference? - PMC (nih.gov)
“Allostasis refers to the adaptive processes that maintain homeostasis through the production of mediators such as adrenalin, cortisol and other chemical messengers. These mediators of the stress response promote adaptation in the aftermath of acute stress, but they also contribute to allostatic overload, the wear and tear on the body and brain that result from being “stressed out.” This conceptual framework has created a need to know how to improve the efficiency of the adaptive response to stressors while minimizing overactivity of the same systems, since such overactivity results in many of the common diseases of modern life.”
From the perspective of neuroscience, connect good annealing with pleasant neurotransmitters taking part in motivation and feelings of wellbeing: Deep pyramidal neurons are important in Canalization.
An active human is less likely to get eaten by tigers and more likely to outwork lazy competitors. This tends to make our stories stressful.
Conditions and behaviours that might indicate difficulty in dealing with emotions:

How to avoid negative psychedelic experiences? This one is from MAPS. We can re-evaluate it:

Harnessing the Negentropy of Peak States
Listening to some big picture memeplex while in a peak state to induce related insight
Important after the annealing session not to engage with low-quality activities. Spend some time integrating the experience. Sleeping also seems to help.
Music
Bienavi assisted Oneness therapy. Improving several current development areas (targeted neuroplasticity). 1) Improving one’s acquaintance with the oneness experience, 2) further one’s understanding of oneness experience, 3) integrate one’s intellectual recognition of oneness into everyday life
Disclaimer: With a trained therapist it is important to stay on the correct ontological track and avoid canalization of paranormal cluster beliefs.
Some interpret holistic feelings of wellbeing as a sort of spiritual signal. In this interpretation, feeling at a very deep level that the world is good, that things fall into place perfectly, that you don’t owe anything to anyone, etc. is a sign that you are on the right (spiritual) track.

Undoubtedly many people use the (often extreme) positive shift in their valence upon religious conversion as evidence of the validity of their choice. Intense positive valence may not throw Bayesian purists off-balance, but for the rest of the world, blissful experiences are often found as cornerstones of worldviews. (Quantifying Bliss)

Each color represents a given “emotion attractor.” At a high level, we can say that whenever you are experiencing an emotion that is, e.g., green you are more likely to transition to other emotions that are also green (relative to what would be expected from choosing an emotion randomly).
It turns out that some emotions behave in interesting ways. Some are what we called “hubs”: common stopping points that work as a route between any two colors. For example, “calm” and “tired” are hubs, and they do not give you much information about past or future emotions. Some other emotions behave like ‘gateways’ in the sense that they tend to indicate a jump from a particular color to another. For example, “hopeful” and “relieved” are two gateway emotions: they work as stepping stones from blue (depressive) emotions to green (positive) ones.

Spectral Considerations: Frequency Transforms

Preventing Information Destruction
Bayesian stabilization in the graph of knowledge through seeing how the information fits to the whole big picture model that is constructed with a certain objective function. (such as wellbeing engineering)
Manage possible difficult psychedelic experiences such as depersonalization, derealization, panic, and fear of dying that could overwrite previously developed well adapted models.
Leaving a Breadcrumb: Placing Tethers Between States
Applications:
meditation for stress, trauma, emotion relief
for directed focused deep or creative lateral thinking
coherence therapy https://www.frontiersin.org/articles/10.3389/fnhum.2022.955558/full
IFS
psychotherapeutic alleince
https://www.frontiersin.org/articles/10.3389/fpsyg.2022.783694/full

Neural annealing underlies high-level changes in beliefs and attitudes. Mystical-type experiences can be interpreted as uniquely strong versions of neural annealing.