

9.5 Hypotheses which are Human-readable, Provocative, Coherent, Plausible, Falsifiable, and Actionable

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Abstract (*meta-data*)

The more physical science has learned about the Laws of Mathematics, Physics, Biochemistry, and Evolution, the more individual human beings feel lonely, anxious, distracted, and oppressed by organizations of all types. Organizations dominate humans because organizations have abilities to aggregate, produce, and coerce far beyond what small, familiar human groups can do.

Presumably, one could rectify that imbalance by informing human action with scientific truth. Unfortunately, attempts to guide society with science have failed catastrophically before. In this urgent case, however, there may be no alternative to keep organic, continuous minds healthy in an inorganic, fractured world. It is possible that an archipelago of legitimate, consistent scientific hypotheses can serve as a continuous path of stepping-stones from incontestable eternal truths (“What is?”) to immediate imperatives (“How then shall we live?”).

These particular bedrocks are not in fact isolated, but have been hewn from a vastly larger monolith in use for years. In fact, many people close to me already live by its creed and feel its benefits, myself most of all.

The best return to health for all of us would be if a single, microscopic record, such as these nine truths or better, could compress the Wisdom of the Ages into Principles which humans can make use of on our own, with no need for scientific priesthoods or bureaucracy. If humans are to triumph over our creations, the Truths of the Sciences and the Empathies of the Humanities must be melted, mixed, and re-crystallized in a single indestructible human-readable form. I hope this paper does the trick, since I find writing tiresome. Later I might comment from my own experience. But frankly, I think that your life will be better by filling the blanks on your own.

[CONTENT]

In memory of my brother and collaborator Ed Softky, November 7 1963 – October 9 2008, who wanted to teach Buddhist Principles through software concepts.

Warrants: The Geometric Laws of Nature

In the Beginning was the Singularity. Ever since, Entropy has been increasing throughout the Universe.

Except here on Earth.

“Entropy” and “Information” are the same concept, based on the same equations for counting combinations. But entropy/information is not the deepest concept in the Universe. Spacetime is.

If one views the universe in data terms, spacetime is the deepest architectural layer. According to Hawking, Hartle, *et al*, spacetime has no boundary (*no boundary condition*, i.e. continuous in every possible sense). It has no particular size (it is *multi-scale*). Structurally, it has no preferred center, it just is. It has no preferred direction (it is *isotropic*). The “shape” of spacetime embodies fundamental *symmetries* (translation, rotation, dilation and such), contains implicit *reference frames* (spherical, cylindrical, Cartesian), and fundamental shapes (the *Platonic solids*). Spacetime can twist, shear, and dilate (but not break). By software inheritance properties, any substructure (*gel*) embedded in spacetime can therefore also twist, bend, or expand.

Spacetime has no fractures; it is seamless, continuous, and connected. To add “...even as time evolves” makes the statement redundant. Spacetime (and of course the things in it) follow the continuous Laws discovered by Newton, Maxwell, Einstein, Feynman *et al*. In software terms, spacetime follows a *continuous interface format*.

But following real-valued rules does *not* necessarily mean spacetime acts like real numbers in other ways. In particular, as Heisenberg *et al* pointed out a century ago, spacetime does not have infinite fine-ness (*resolution*) and thus infinite information. It is blurred and uncertain. There is only so much information in any zone. According to Wheeler, Kantor *et al*, information might yet be more fundamental than spacetime itself.

Discrete, distinct objects from particles on up fracture the elegant simplicity of spacetime. Now separate things can be combined in exponentially many ways (*combinatorially*), allowing complex structures like Life. *Entropy* appears (Clausius *et al*), and makes things complicated. Fortunately, simplicity reappears at the upper bound of entropy, where continuous, low-dimensional Laws like temperature and pressure once again compress the motion of infinitudes of molecules into a couple scalar parameters. The continuous Laws of Entropy (including Laws of Information) do not describe fundamental spacetime structures, but aggregates of known things. By the same token we understand those math-made laws even better, and can intervene in their details.

Science is a form of description. Occam, Bayes, Shannon, Mackay *et al* showed that the most efficient descriptions are simple. So the continuous Laws of Nature form the most simple, low-entropy descriptions possible outside direct sensory experience, and thus the best ones.

The principle is that principles trump evidence. Principles are involved in gathering data, in interpreting it, and in planning action. Principles are what unites “What is?” with “How then shall we live?” Most crucially, their scaling principles are opposite. Big data usually beats small data, but the simplest Root Principles are always best.

Besides Spacetime itself, the most principled of the Elementary Principles is that of Entropy, sometimes known as Shannon Information.

Entropy is a universal concept. Since the Big Bang, it has been increasing in the Universe as a whole. But Asimov was wrong to say that entropy might never be reversed. In fact, it happens all the time.

Hypotheses regarding the informational structure of Life

H1. Selection as a process must veer between focus and blur

Life involves optimization, whether of DNA or manufacturing. Too little optimization and it dies out. Too much is like over-fitting data or over-enhancing an image: it replaces valuable information with old assumptions, and cloaks the problem. The optimum optimization process alternates the selection and copying (*entropy reduction*) with blurring and de-focusing (*entropy increase*), whether when optimizing by A/B testing in combinatorial hyperspace, or when foraging in the woods.

For the selective amplification and error-correction algorithms of Life to work, they must reduce entropy locally. Those dynamics will spiral into singular feedback traps or self-sharpening loops without the systematic re-introduction of entropy (e.g. through mutations). But with such entropy injections, coherent patterns can propagate over time. If at a given scale a self-replicating process is treated as a fictive wave-propagating medium with active properties (like a *lasing medium*), and if it does succeed at producing enduring populations, those populations will in effect be low-entropy waves (*eigenmodes*) of the iterated selective amplification process of the medium, just as certain hues of light are winners of the mode-competition inside lasers.

Amplification has different flavors. The two distinct optimization strategies reflect two distinct topologies of high-dimensional data-space. In one topology, genetic evolution and A/B testing compare discrete nodes of hyperspace, and receive discrete results. In such a space there are no gradients, so accumulated failures and successes are all you have. The work is slow but relentlessly explores all possibilities. The other topology is native continuous foraging over 3-D gradients, which assumes *in hardware* that all inputs arrive from 3-D proximity. Then, based on that 3-D assumption, it prioritizes strategies, pleasures, appetites, aversions and so on to fill both its chemical *and its informational* needs through ongoing, continuous foraging in space. Continuous 3-D space is the polar opposite of discrete N-space.

Examples of probability modes are codons, genes, genomes, organs, individuals, species, ecosystems, languages, communications protocols, industry standards, and file formats. In all cases the propagating medium must be unstable enough that some modes win and most lose. Properties of the winning modes then reflect the probabilities and resource constraints of marginal propagation in the fictive medium (few carriers vs. many, short-term revenue, legibility, duration, etc.). Furthermore, the modes' propensity

to stay focused will reflect the effects of fictive, coherence-promoting aggregate forces.

H2. Homeostasis is both fragile and explosive

Homeostasis is a feedback system like a car's cruise control, set to keep one thing (like speed) steady in spite of hills and headwinds. To ensure the circuit stays stable, the original correlation on which the circuit is based must always be respected, whatever other modifications occur (e.g. when you fix your car, don't switch the accelerator and the brake). Because that sign-flip turns a stable negative feedback loop into an unstable positive one, violations of that original statistical contract easily turn highly responsive controllers into quick-self-destruct mechanisms.

The current human situation matches this predicament. We evolved as the most affectionate, cooperative, expressive, sensitive, empathic creatures ever on Earth (if one does the bandwidth numbers), yet now routinely kill our friends in rage. We do not touch, yet seek more isolation.

H3. Making sense of space needs microtiming, and is therefore brittle

In any pulse-driven spatial simulator like a brain, the precision in space (*mm*) and in time (*msec*) of the moving map depend directly on the autonomy (*output entropy*) and timing precision (*latency jitter*) of the round-trip path from actuator back to sensor. This precision itself explains vibratory proprioception, visual hyper-acuity, and echo-location; the need for it explains skulls and warm-bloodedness; and the lack of it creates a felt sense of de-calibration, spurring resolution-restoring countermeasures like "pinging."

In particular, vertebrate brains need smooth, defect-free moving maps (*motor maps*) to operate a spine fluidly. Motor maps are the fitting curves (*splines*) which stitch randomly located mechanoreceptors pulses into smooth, self-consistent force-field images, and which let brains simulate, anticipate, control, and corral myofascial sound waves into simple, coherent ensembles. The hyper-sharpening necessary for that task makes the self-calibration process brittle. For example, if a map becomes data-starved for any reason, internal or external, it may choose to avoid now-uncertain zones of data-space because they feel difficult to control and thus functionally uncomfortable. That avoidance creates a local data-starvation feedback loop plunging that particular zone into dark-space to benefit other zones, and fracturing the map's operation in space and time. Fractured maps cause fractured, sudden sensations and motions like itches, clicks, pops, and snaps. Dark zones can only be enlightened by imposition of stronger, more global coherence-enforcing priors in the form of compensatory pleasures, such as continuous breath, ecstatic spinal straightening, and inter-spinal resonance.

Most humans now have fractured motor maps, from being forced to sit and move in conscripted, repetitive ways. Healing those maps (*annealing*) to restore vertebral fluidity (and hence metabolic, emotional, and cognitive fluidity as well) is the acknowledged goal of spinal disciplines like Feldenkrais, Pilates, yoga, and chiropractic. It is also the unacknowledged but lucky side-effect of many touch-based practices (*contact improv, partner dance, acro yoga, bodywork*), due to inter-spinal resonance. Lately, social motor maps are being fractured at an epidemic rate by the timing-interference of digital technology, causing widespread alienation, anxiety, depression, and suicide.

H4. When in doubt, ping!

If “listening” involves quiescent tracking of a continuous world, let “pinging” be its opposite, the activity of pulse-creation, and let “ping power” be the fraction of an agent’s available power dedicated to pinging at any given time. Then, a good strategy to keep a microtiming circuit in homeostatic calibration—i.e. trust-worthy—is to invest energy in coherent-pulse creation (i.e. ping power) whenever internal timing precision declines or uncertainty increases. These pings create a loud enough return signal to re-establish timing lock in only a few pulses. They cost not only energy, they require fixing the reference frame for the duration of the ping and echo (thereby losing continuity and resonant connection), they fracture continuous expression into tiny chunks, and they create distracting external signals, like a submarine’s ping, which may draw unwanted attention. All digital interaction consists of pings or micro-pings, and all decalibrate sensory circuitry.

H5: An accelerating epidemic of digital fracturing

Let a property of a communications medium be *transparency*. “Transparent” means the media doesn’t absorb or suppress any particular kinds of message (*neutral*), it doesn’t amplify or promote messages on its own (*stable*), and it transmits the same in all directions (*symmetric*). A transparent medium does not impose its agenda on those using it. In that sense air and skin are transparent; symbolic media like books and screens are not.

When humans communicate with non-transparent media—in particular digital interaction, which transmits one-way fear, uncertainty, and doubt far faster and more efficiently than it does symmetric reciprocity, and which corrupts microtiming thousands-fold—we humans become decalibrated, and feel a need to ping. But digital media absorb pings without returning precisely-timed echos, and each ping increases everyone’s noise externality,

so pings cause damage without providing benefit. As a result collective dynamics are unstable, and in a given group there will be a “critical threshold” above which pinging accelerates like a chain reaction, like a crowd of people drowning all at once. The most decalibrated individuals and groups will be those who rely on compressed digital social representations without compensating *proximity* social connections. Those people may over-cherish digital interactions, become anxious, lonely, or depressed, lash out online or in person, talk about or even commit violence, think/act/vote extremist, and in general flail increasingly as their nervous systems become more desperate for authentic human timing signals. The fact that my digital pinging increases yours means that trust-destroying viral communications modes can infect and have infected digital media, much like the T-cell-destroying viral molecular patterns of AIDS infect the immune system.

Once, over the eons of hundreds of millions of years, air-breathing life was threatened by the “externality” of accumulating oxygen. Now, human cognition is threatened by the externality of fractured, low-entropy physical environments and infected, fractured communication. The best short-term solution for individuals is to avoid the sources of infection, to create “air supply” containers for proximity recalibration of human trust, to re-introduce organic entropy and continuity, and to re-symmetrize our individual nervous systems. The best general principle for any agent or organization to counter exponentially-fracturing human communication is the only solution to over-fitting and over-sharpening problems as general types: accept duration and uncertainty, slow down, re-sensitize, make fewer sudden moves.

I write this now, in response to math and experience. I have always been the fiercest, most inveterate and skillful pinger anyone I know has known. I bragged about asking half the questions at Caltech, and for all my interruptions and unilateral impositions of reference-frame shift, I am sorry. I now know intellectual legitimacy alone is not the only value, nor the highest one.

H6. Community containers recalibrate and cure

The spaces we are in and the rules we agree to (*community containers*) modify how we communicate. The easiest bring immediate healing; the best fuel ecstasy.

The fracturing epidemic is caused in part by buildings, lighting, furniture, rules, and habits which decalibrate our sensory and social systems. Those must be fixed of course, but the most beneficial containers are designed from scratch according to universal human principles of symmetry, continuity, and entropy. Symmetry says all humans in the container are equal in interaction,

so incentives are forbidden. Continuity says smooth space and sentiment, not hard walls nor rules, be used to separate, so no sharp lines in space, time, nor judgment. Entropy says variety is precious in facial expressions, vocalizations, and styles of motion, but it also says proximity, visibility, and touch provide positive bandwidth benefits.

For example, one beneficial container class could be the “vibratory air supply,” an interaction meant to reconnect people who care about each other, by enabling reciprocal vibrations. A simple air supply would be a high-fidelity audio conversation, like a landline phone call; a more expensive version could take place in a teleconference booth. Another air supply could be an un-incentivized collective physical activity (*group yoga, Tai Chi, contact improv, Ecstatic Dance*™). All of these techniques, known in California as “embodiment practices,” heal both motor maps and moods, as long as people are encouraged to appreciate how they work.

Truly ecstatic containers are possible, because humans are hard-wired for collective ecstasy...we must be. The same entropic reasoning that says there must exist deep pleasures of breath and spine to overwhelm motor-map fracturing also says there must be deep pleasures of community, whether Zen or Dionysian, to overwhelm divisiveness. Our ancestors were allowed to do what they wanted with each other. They must have enjoyed it. Autonomous social creatures need that freedom, at least occasionally.

As an example of a physical container, consider aspects of this Garden:

Soft time	Start- and end-times are blurred, not exact. No clocks, timed sounds, or references to time.
Soft space	A pleasant park-like place warm enough to go shirtless, big trees, expansive views, and interesting underbrush.
Gathering	Lawns, amphitheaters, nooks
Surfaces	No asphalt or hard boundaries save for minimal buildings. Path surfaces are irregular and barefoot-friendly.
Views	Horizon, sky, foliage, water.
Sound	Mostly quiet with noise-making permitted here and there. Minimal mechanical sounds and no electronics, only acoustic live music.
Light	Firelight or zero-flicker black-body bulbs.

Here are some examples of shared plans, which might be spoken together for resonant vibrational and cognitive intention:

- We people in the Garden share these intentions:
- We hold this space for each other to heal
- We avoid incentives and incentivized speech
- We communicate non-verbally whenever possible

- We move as we want, and don't judge others
- We sit in symmetric Circle to solve problems
- We address each other by name not title
- We always give someone 50% autonomy
- We avoid hard rules and numbers
- We cherish frequent affectionate touch

Even a subset of these rules ought to benefit gatherings from tea parties to orgies.

H7: "Paleo everything but violence" rebalances entropy

If the fracturing epidemic is caused by too many man-made information sources and restrictions, the simple cure is reversing those statistics. That is, reducing the dimensional entropy of one's interactions, and re-introducing organic entropy.

Dimensional entropy is anything not continuous 3-space, *including all symbols, categories, words, and media*. For example, cities have high dimensional entropy, too much noise and too many rules and choices. Silent, non-verbal meditation retreats have low. The need for hours-long exposure to such coherent, continuous physical and cognitive environments cannot be overstated.

To increase organic entropy, modern humans need far more variety of immediate sensory experience, including roughness, hard support and impact, cold, hot, focal trigger point self-massage with something like a Rumble Roller™, and affectionate touch over the entire skin surface. To avoid the self-reinforcing feedback loops (*moral hazards*) which caused entropy starvation in the first place, entropy re-balancing is best arranged autonomously by each individual or family, unalloyed by commerce or incentives.

Such personal practices, even if done without spinal straightening, will revive the nervous system, the spine, and the community.

H8: Reviving Human Resonance

The native symmetry between the human brain and human body (*neuromorphic symmetry*) allows the brain to model and control the body by an active, elegant continuous-time computation part mechanical resonance and part ongoing crystallization (flow-crystallization). By its nature, flow-crystallization spontaneously appears, not just inside a properly-wired nervous system, but between them. In particular, the higher the neuromechanical bandwidth between the bodies of two proximal, connected

humans, the stronger and simpler the ecstatic state, and the more powerful the resulting Neuromechanical Trust.

Of Neuromechanical Trust, the “mechanical” part involves massive parallel, bi-directional coupling, in various combinations of bone to bone, muscle to muscle, skin-to-skin, eye to eye, mouth to mouth, or genital to genital. In an idealized case, the more symmetrical, the more intensity (though other couplings help maintain diversity of input overall). The “neuro” part involves attention focused on one’s interior midline sensations, and on signals originating from the midline of the other, in the present moment. That is the simplest self-description geometrically possible and hence the most high-bandwidth mutual data-aggregation strategy or geometry one might use. If you and your partner focus this way, you too will merge. This is the dyad version of embodiment.

A prerequisite for calm coupling is to maintain in both heads a simultaneous, coherent set of attitudes consistent with that goal. To coarsify attitudes enough for quick lookup, consider using the following compressed aphorisms:

- *Faith is Bayesian priors*
- *Spine and breath smoothly continuous*
- *Subtle slow symmetric, not loud quick categorical*
- *Optimism is optimal resource-allocation*
- *It’s data all the way down*
- *Life is always information-limited*
- *Aches and pains are mainly in the brain*
- *Categories are inaccurate, categorically*
- *Discomfort is data, not damage*
- *Exponential growth can be reversed, and vice versa*
- *Healing and annealing can be viral too*
- *Humans are continuous; our “flaws” are fractures*
- *Bodies re-symmetrize through resonance*
- *Ecstasy is now*
- *Karma is your brain remembering things you forgot*
- *Trust is neuromechanical*
- *Quiet lowers baseline and increases bandwidth*

This connection works with everyone who tries it authentically. Just give yourself enough freedom, time, multiple opportunities, patience, and partners to give the spark a chance to catch. Then pass it on, and try it with three or more. Inter-human connection is the ultimate bandwidth pleasure on the planet, so the sky is the limit.

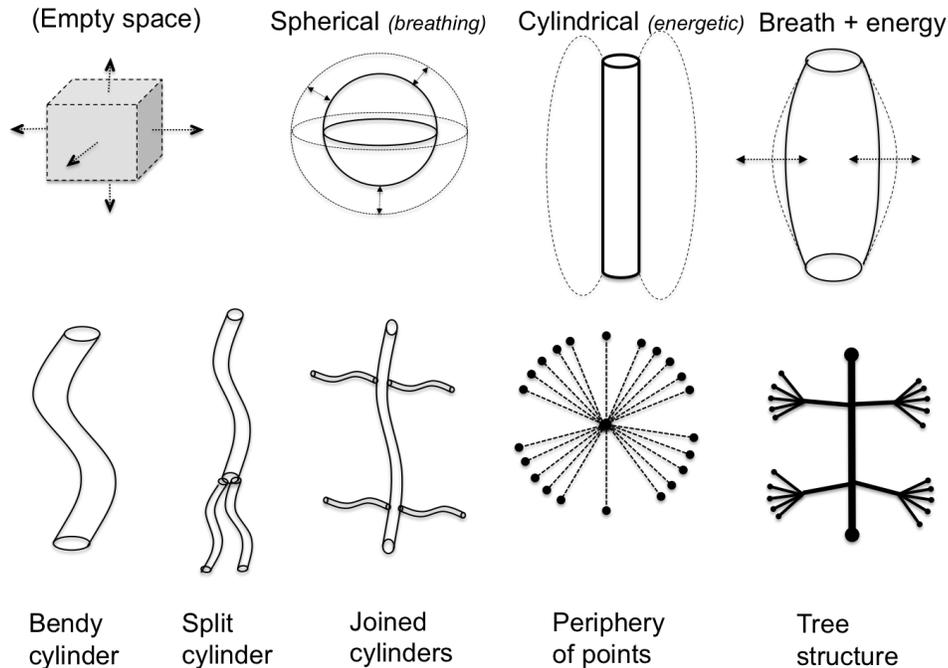
H9. Ecstatic breath and spinal straightening

A creature which had to stop to breathe would, like a pinger, become accustomed to such fractured multi-tasking in place of continuous felt experience and flow, and would then be unable to regain symmetry and simplicity in its motor map. To pull a creature's nervous system away from that trap-door, the feeling of breathing fully and continuously into tissue, as if the breaths physically expands it (including muscles felt in the back, neck, throat, and especially sinuses above the ears) must create a symmetrizing pleasure to motivate the necessary motor coordination.

Likewise, the Laws of Physics suggest that a spine has to *want* to be straight, because there are so many more ways of not being straight. Especially if you try to fix it the wrong way (e.g. using *local, invalid proprioceptive reference frames* inherited from an already-fractured perceptual system). A spine needs a built-in entropic pleasure to urge it toward the single best configuration: chin and jaw pulled directly backwards, perfectly elongated, self-straightening, fluid yet taut, co-axial with the breath.

As yogis and hyper-athletes know, optimal physical activity involves consistent, continuous management of attention in and near the body, imagined at first but ultimately practiced and felt, even if the “feelings” seem physically impossible, like being bent in half but feeling straight inside. A focused, rational data-gathering strategy, when applied to re-symmetrizing breath and spine deliberately, has drastic impacts.

One key is knowing what shapes to think about, or rather, to *feel for*. Body control faces the same constraint as Quantum Mechanics: *There is only so much information in a given block of Spacetime*. To gain resolution in time—the bandwidth goal—you must sacrifice resolution in space. In this scheme, the fastest data-aggregation geometries (*continuous distributed multiscale operating systems*) are the simplest shapes. For example, starting from the upper left of the Figure below: Spherical, one-dimensional breath cycling over time; a one-dimensional spine in space (virtually connected end-to-end); the product space of those two; a bendable spine; and so on, increasing in dimension and complexity. So central concentration helps set symmetry.



Spinal transformation is inherently dangerous. Any attempt to recalibrate a damaged processor to regain its designed-in range of sensation and experience must calibrate extremes at first, both pain and pleasure in particular (including emotional pain like fear, and pleasure like accomplishment). Your sense of self and friends will be destabilized, on purpose. A dizzying variety of proprioceptive hallucinations may rip and zip randomly inside your bones. You may feel your neck itself could break. It might.

As an example, in a typically extreme exercise you balance in a headstand (on soft rubber) atop your fontanel, *unsupported by the arms* (wrapping your feet around a vertical pole is OK), while learning to clasp those same head-muscles like your palm against the floor, possibly also coughing or singing into that space, while also focusing attention simultaneously on anus, tailbone, and chest. That demands fierce concentration; if the neck relaxed under such load, it might break.

Immediately after that fully symmetrical inverted compression, hoist yourself up on your forearms, grasp the pole between the legs, relax and dangle the spine to “crack” it, swing and spin the dangling head in various ways, and slowly descend to repeat the compression. You can imagine many more exercises using this kind of self-healing mechanical principles: showers on the skull, cavity inserts, acupuncture, Q-tips in the ears. **Spinal healing should always use a partner.** If you do in fact succeed in resetting your spinal OS, you’ll need a trusted human whose judgment works when yours doesn’t, and from whom you can reboot by resonance.

Remember: These guidelines are but a map; you are in the car. You pick the speed and the direction.

A gentler form of spinal straightening comes from Pole Dance. Many who try it feel transformed, become healthily dependent on the sport, lose weight, gain energy, and change their lives. According to First Principles of social and spinal bandwidth, as derived from the Laws of Information Flow, Pole Dance as both a physical and community activity beats anything commercially available.

The benefits of spinal transformation match the risks. When annealing any complex data-schema, especially the ultrasonic operating system of the spinal motor-map, you can't know which results will happen when. Tolerating uncertainty is necessarily, strategically. Proprioceptive data conflicts, which cause fractured sensorimotor dark-space in the first place, account for most aches, pain, and insensitivities we suffer day to day. Fixing the spine fixes all that, and sudden embodiment feels great when it happens.

It happens very suddenly, sometimes in microseconds. Really. I often hear my "bones" crackle inside my head, a sound very high-pitched, like breaking glass. Others can even hear it across the room.

Although I know the vibrations emanate from myofascial neck- and skull-control fibers wrapped *around* my skull, the sensation appears, impossibly, *inside* the middle of my brain. In the first place, such hallucination is possible because *all* proprioception (and indeed sensation) is 99.99% hallucinated anyway. But furthermore, this particular texture of hallucination—feeling muscles where they are not—represents the most efficient use of the brain's native 3-D imaging system, and in doing so also lets me feel smooth stripes of force from fontanel to finger and toe, as if my body were not separate bones and muscles, but a single elastic solid, like Gumby.

The glass-break sound has frequencies around 10 kilohertz at least, which means the suddenly-deprecated neuromotor strategy can at once release a slew of fibers within fifty microseconds. That "crack!" made my brain feel open, silent, fluid, and calm at once. What other cause could make a sound so sharp, repeatedly, consistent with internal mechanical sensation, or yield such relief?

Now I know my aches and pains are mine to cure, and now I know the principles. Now you do too.

And now I'm feeling the results, thanks to God and thanks to my warm friends. Like fracturing, gratitude is structurally contagious. I hope it goes viral.

H9.5 A PUBLIC-HEALTH EMERGENCY

I “hypothesize” that only a collective, spontaneous call to action like this one can save humanity.

The continuous human nervous system is splintering, both inside and between us. The irony is that we are so exquisitely sensitive to discontinuities of all kinds that we become fascinated by and habitually addicted to those we create: addicted to our tools and to our actions. The many processes by which fracturing begets more fracturing are as old as recorded commentary. Today, though, their cumulative impositions have accelerated by orders of magnitude, beyond the bandwidth bounds and representational restrictions of our native nervous systems. Now those impositions constitute almost our entire existence, and we can't even think or communicate straight. This slide is unsustainable by any measure.

Every human was born with an outdoor, friends-and-family operating system, which needs Nature, friends and family—but especially personal autonomy!—to stay in calibration. Those nervous systems are starved of their birthright of autonomy for two interacting reasons: organizations organize by imposing structure, and people choose quick, interesting information over the slow, boring stuff we actually need.

The grim view is that Life on Earth is doomed to die of entropy-reduction. The happy view is that ten billion human beings are alive and still can love people close to them. When we get a chance to act on Love, we humans do it well.

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This work is part of a larger, co-equal collaboration with Criscillia Benford which includes the informational structure and eigenmodes of narrative.

Not everyone can understand these hypotheses or make use of them. I believe the people below still living could do so, and I would be personally flattered if they did.

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