

# Modes of Dissipation: The Green Episteme and Its Not-So-Green Psychopathologies

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## Abstract

A forward looking alternative to the major past and present Western paradigms of psychological normativity and abnormality is outlined. This novel perspective is linked to the emerging moral power of "green" environmentalism and the immanent life and death struggle to reverse humanity's fouling of the biosphere. An argument is advanced that such a conceptual re-framing of psychopathology requires foundational recourse both to Penrose's non-computational theory of consciousness as wave function collapse and to a refinement of the anthropic principle. Implications for a possible future "geometric" taxonomy of mental illness are suggested.

**Key Words:** alienated labor, anthropic principle, episteme, green energy, heat bath, lensing, many worlds ontology, negentropy, psychopathology, qubit, scalar field

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The French post-structuralist philosopher Michel Foucault has argued that the prevailing discourse molding the very possibilities of knowledge in any given historical era is founded upon subliminal power rather than rational progress toward truth. He has further asserted that the succession of these eras, which he has called "epistemes," unfolds over time as a serially discontinuous sequence ordered by no consistent interrelations. Foucault has specifically singled out organizing assumptions about mental illness as massively subject to subliminally powered discursive shifts between epistemes.

Irrespective of Foucault's own idiosyncratic historical parsing of psychiatric

epistemes (Foucault, 1990), one can document fairly close coincidences between feudal European theocratic power and conceptualization of madness as possession, between the rise of a modern industrial "mode of production" and the heyday of materialistically secular approaches to psychopathology like Kraepelin's biomedical descriptions or Freud's libidinal hydraulics, and between postmodernity's "mode of information" (Poster, 1990) and digitally computational interpretations of mental disorder as an emergent property of malfunctioning neural networks. Though it is likely that a core population of the severely and persistently mentally ill from any of the above feudal, modern, or postmodern epistemes would be recognized in all three eras as "deranged," one may expect that more marginal cases might be considered abnormal in only one or two such epochs but normal in the remainder. For example, a zealous clerical inquisitor in past centuries might be seen as normatively virtuous by his peers but sociopathic by later standards; a

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patient manifesting “processing problems” associated with attention deficit disorder (Frances, 2010) under the recent sorts of stresses endemic to information-intense multitasking workplaces might be accepted as adequately attentive in the less data-dense milieu of a feudal estate.

Foucault associated the secular modernity of an industrializing nineteenth century with Nietzsche’s proclamation that “God is dead” and characterized his own anti-humanistically symbol ridden postmodern era as the metaphorical “death of man.” (Perhaps an apt name for the feudal episteme consistent with these labels might be “the death of Satan”). We can now ask ourselves whether the next phase of the twenty-first century is about to usher in a new ecologically oriented episteme buoyed by the ethical growth of “green” power opposing our increasingly ominous pollution of the biosphere (Lovelock, 2009). We might describe this imminently apocalyptic prospect as the toxic and not at all metaphorical “death of Earth.”

A green-powered discursive dichotomization of the world going forward would not pit ecclesiastics against Satan, scientific materialists against theistic obscurantists, or decomposably “smart” computing machines against the “benighted” folk psychology of whole human minds, but instead might be expected to counterpose life-promoting green imperatives against life-degrading “modes of dissipation.” We can imagine possible ways, in accord with the genealogies of Foucault, that a new green episteme may re-mold our normative ideas about mental health in the service of an earth friendly agenda. The green conceptual matrix might extend, at least in terms of collectively relevant interpersonal ecology, the categorical margins of ostensible psychiatric symptomatology to include, for example, egregious conspicuous consumption or fanatical advancement of globally harmful public policies.

This paper proposes a radically ecological revision at the boundaries of psychodiagnostic norms, consonant with the coming potentially pervasive struggle against Earth’s man-made demise. The new normativity draws upon nonlinear thermodynamical concepts of bio-enhancing

green energy, upon critical theories of alienated consciousness, and upon an “anthropic” interpretation of sentient signals and non-sentient noise across a “heat bath” of multiple quantum realities. These perspectives considered together suggest a new standard for healthy mental function understood as precisely that restricted meshing of cognition, motivation, and behavior which diverts a wide spectrum of energy flows into the limited visible electromagnetic frequency band supporting life, starting with the quantum fountainhead of photosynthesis and u-turning via recyclable carbon bonds. Genial techno-examples of such a life-promoting, negatively entropic augmentation to date might include the creative brain’s inventive wresting of visible, medically useful images from invisible, dangerously mutagenic x-rays and of maximally digestible carbon bonds from raw foodstuffs cooked by thermally disruptive microwaves (Mender, 2008). This sort of thermodynamically felicitous productivity strongly contrasts with wantonly destructive promotion of outcomes in parts of the energy spectrum that merely poison us with ionizing fissile gamma rays or smother us with the infrared consequences of planetary warming, a pathological telos of alienated intellectual labor (Adams, 1991) driven by a morbid psychology bent, either purposefully or inadvertently, on shooting itself in the foot.

It is possible to flesh out the specific post-computational biophysics of the above broad hypothesis by enlisting insights from the visionary physical ontologies of Erwin Schrödinger (Schrödinger, 1967; Vitiello, 2001), Roger Penrose (Penrose, 1989), and Hugh Everett (Deutsch, 1997; Greene, 2011) and from several quantum paradigms of psychopathology outlined in the *NeuroQuantology Journal* (Cocchi *et al.*, 2010; Cocchi *et al.*, 2011; Globus, 2010; Malik, 2010; Mender, 2010a; Mender, 2010b; Pylkkanen, 2010; Tonello and Cocchi, 2010; Werneke, 2011; Woolf *et al.*, 2010). The central chain of relevant reasoning starts from Schrödinger’s assertion that life “eats” ordered energy within a limited, largely green-reflecting (*i.e.*, red-absorbing) radiative frequency band (Loewenstein, 1999; Schrödinger, 1967; Vitiello, 2001).

This basic energy-gustatory principle raises a key question about the evolutionary role of consciousness: if bottom-up epiphenomenalists (Malmgren, 2005; Mender, 2010b; Spitzer, 1998) are wrong, *i.e.*, if mind has counter-emergent, "top-down" efficacy in enhancing life's material survival, then exactly how does biologically constructive mental activity extract green-reflecting/red-absorbing "bits" of negative entropy from a randomized sample of radiative energy frequencies across the larger ambient electromagnetic spectrum? One suspects that quantum considerations may be essential in addressing this riddle for three reasons.

First, though "bits" of negative entropy were originally defined during the pre-quantum era in a manner consistent with the classically particulate physics of steam engines and Gibbsian molecular ensembles, radiation-inclusive "bits" are better framed today in terms of homogeneously narrow quantum frequency bands. Second, it has recently been shown that photosynthesis and possibly other steps in metabolic energy streams within living organisms and along interspecific food chains depend non-trivially on quantum events (Engel *et al.*, 2007). Third, among all physical models of mind currently extant, the only theory epistemologically isomorphic with immanent post-algorithmic modes of dissipation is Penrose's explicitly non-computational description of consciousness as a "collapse" of wave-functions laden with quantum-generalized "qubits" of information (Penrose, 1989); other approaches either are programmatically digital or assume coherent states with quantum-computational capabilities burdened by a fading episteme invested in algorithmic modalities.

Normatively green quantum collapse entailing consciousness implies that a healthy sentient brain may not simply suck bits from one narrow frequency band into another by means of classically nonlinear energy expenditure. Instead, post-algorithmic, non-computational consciousness may utilize collapse of the wave-function to transform the seemingly ghostly post-classical information of qubits, locked within correlations among phases of the "superposed" quantum wave-functions

constituting interference patterns, into an enhanced red-absorptive frequency homogenization of radiative "biofuel."

At first glance it might appear that the required qubit to bit (*i.e.*, phase-correlated to frequency-homogenized) transformation cannot be accomplished within any standard filtering rubric of known physics. A crucial obstacle lies in the systematically unpredictable outcome of wave-function collapse, following even the most assiduously orchestrated (Penrose, 1989) pre-collapse state preparation. Post-collapse aftermath indeed preserves, among all superposed pre-collapse wave-function components, only one frequency band per collapsing event; however, from one collapse to another, selected post-collapse frequencies vary in an irreducibly random and uncontrolled way. Nevertheless, Hugh Everett's "many worlds" ontology of collapse (Deutsch, 1997; Greene, 2011), combined with the concept of "anthropic selection" (Barrow and Tipler, 1986; Smolin, 1997), can come to the rescue as a countervailing perambulation past the randomizing barrier.

Everett's "many worlds" ontology postulates that each of the components, which when collectively and mutually superposed before collapse comprise a wave-function, points to a separate universe. A given wave-function's collapse, though it selects only one component frequency for survival in one apparent universe, does not in Everett's depiction annihilate any of the non-selected frequency components. Each of these other components lives on separately in the shielded cocoon of its own alternatively spawned universe, where it unitarily develops as a new wave-function potentially subject to further collapse. Hence, Everett postulates a progressive ontogeny and proliferation of parallel universes with successive iterations of collapse.

The idea of "anthropic selection" goes further than Everett's model to claim not only that the universe in which we find ourselves is merely a speck among countless other universes. Self-consistent forms of the anthropic principle state also that the apparent "luck" by which we as living beings happen to be located in the statistically unlikely kind of universe that harbors at least

some local conditions supporting life is not luck at all. Nor is this outcome due to any efficient or final "cause" in the Aristotelian sense. Rather, our "fortunate roll of the dice" is the "result" of a tautology: it would not even be logically possible for an entity capable of anthropic theorizing to be "born" into any universe whose physical constants happened to be inconsistent with living processes.

Let us extend and fine tune this tautological, *post hoc*, acausal reasoning into a functional re-definition of the "normal brain." That is, the normal brain is to be posited functionally as coextensive with that helter-skelter map which happens to trace non-unitarily configured red frequency absorption band presences across a "hyper-anthropic" subset of anthropic post-collapse quantum universes.

The odd implication is that a normally functioning brain is not a unified causal mechanism instantiating an integrated design at a reliable address in one universe. Instead, the normal brain is a non-deterministic sequence of preserved biofriendly wave-function component residues whose various similar but distinct home universes are linked by chance via a "random walk" of time-rectifying collapses snaking blindly through the ramified multiverse. Moreover, each brain-tracing universe exists within the multiverse in parallel with myriad other less hospitable universes into whose collectively branching "heat bath" quantum-thermal exhaust waste across toxic frequency bands has probabilistically dissipated.

The effect is a seeming series of "cinematic" transformations by which the jitter of pre-collapse phase correlations appears to morph into frequency homogenizations as the undirected many-worlds "celluloid" of brain dynamics threads along an aimlessly meandering trajectory whose selective nodes must by logical necessity be hyper-anthropically distributed "sprockets." What we have heretofore too rigidly comprehended as a solid, persistent, purposive subject-object called the normally sentient brain within one single universe is thus more flexibly deconstructed into a kind of flicker-fused motion picture, tumbling and careening across a panoply of self-similarly

receptive cosmological theaters frame by frame, the timing of each static image smeared into its precursor and successor by the conjugately incompatible sharpness of life-supporting energy frequency eigenvalues.

A potentially testable prediction of this hypothesis may be a null-hypothetically unexpected biasing effect; the bias would involve a priori synthetic and therefore diffusely isotropic radiation frequency shifts with respect to the "green" band and would be spread throughout each universe within the normal-brain-containing subset of independently evolving space-times. This might manifest itself (post collapse and not, a la Penrose, pre-collapse) as electromagnetic lensing (Mender, 2008) via a quasi-relativistic, pseudo-gravitational scalar field akin to super-Higgs, inflationary, or dark energy phenomena (Carroll, 2011). The pseudo-gravitons and pseudo-gravitinos thus generated could be understood by virtue of their a priori synthetic origin with their local supersymmetry comprehended as splayed pluralities attached to agencies of collapse (Mender, 2007) and as commensurate skewing of related intrinsic spin correlations.

Another implication extrapolated from a hyper-anthropic understanding of "normal" brains may be that subtly psychopathological yet classically lesion-free brains will be found, across the same quantum-parallel universes as their healthy cohorts, to trace a slightly fuzzier spectral band encompassing a penumbra of almost-but-not-quite-red absorptive/green reflective events. Such altered spectra might vindicate within a quasi-relativistic framework quantum models of psychopathology like the "mal-attunement" hypothesis (Globus, 2010; Malik, 2010). Sorting pathologically "alienated" bands according to their disparate aberrant geometries, *i.e.*, distinguishing topological, diffeomorphic, affine, and/or metric field distribution anomalies, may lead to new criteria for classifying "natural kinds" of mental disturbance. Some of the more novel resulting taxonomic categories could well delimit psychopathological contours of a many worlds neuro-ecology.



It should be emphasized that the perspective just elaborated, while offering a potentially rigorous quantum-holistic (Pylkkanen, 2010) link between the ecology of life affirmation and psychosocial health, by itself promises no solution to what David Chalmers (Chalmers, 1995) has termed the "hard problem" of consciousness: a quantitatively physical explanation of qualitatively phenomenal subjective experience. Hyper-anthropic "traffic" from superposed phase relations to quantized energy frequencies may enhance our normative understanding of consciousness and its pathologies, but some other type of conceptual advance will be needed to penetrate fully the inner mystery of conscious qualia.

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