24 Predictions for the Year 3000
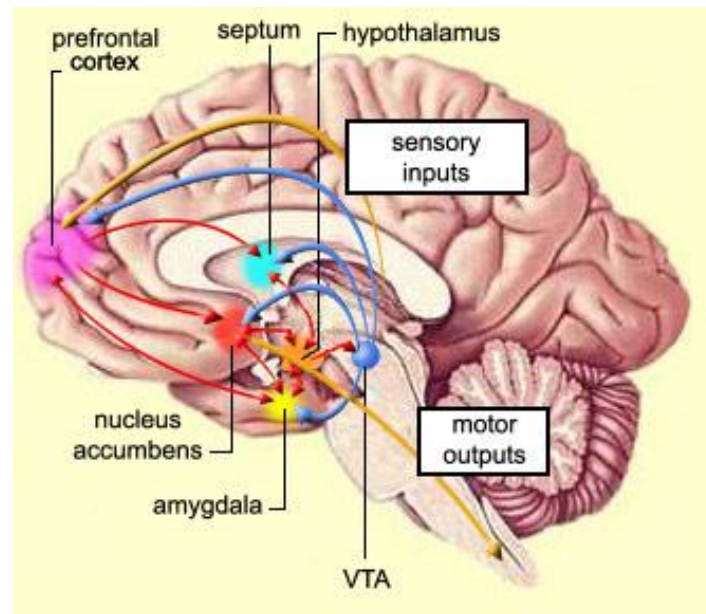
David Pearce
Neuroethics Foundation

David's website: hedweb.com

Outline

#1 Superhuman Bliss

- Mastery of our reward circuitry
- "Everything that goes up has to come down" turns out to be a false truism courtesy of the genetic sabotage of the hedonic treadmill
- Valence Realism: How good/bad an experience feels from the inside (the "raw feels" of experience) is an objective physical fact no less real than the rest mass of an electron

#2 Eternal Youth

- More precisely:
  - Indefinitely extended youth
  - Effectively unlimited lifespans
- Automated off-world backups
  - Restoration
  - "Respawning" in case of catastrophic accidents
- "Aging" exists only in the medical archives...

#3 Full-Spectrum Superintelligences

- Flourishing ecology of:
    - Sentient nonbiological quantum computers
    - Hyperintelligent digital zombies, and
    - Full-spectrum transhuman "cyborgs"
- Neurochipping makes superintelligence all-pervasive
- Universe looks friendly:
    - *Prononia - the belief that the universe is conspiring to help you*
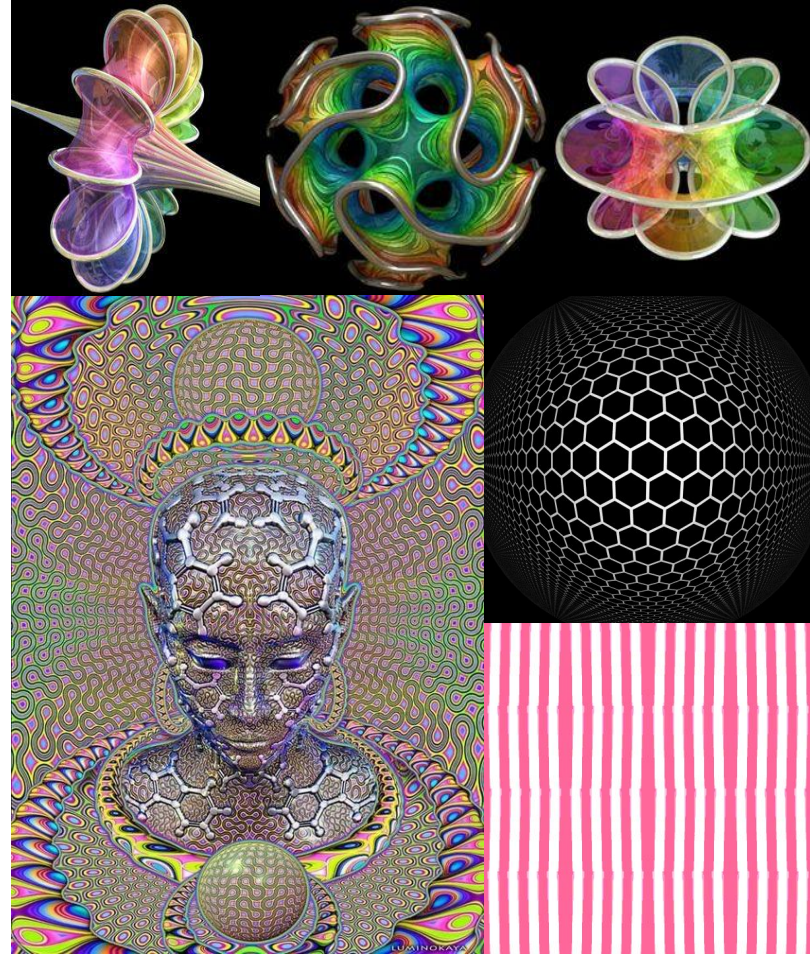
#4 Immersive VR

- "Magic" rules
- "Augmented Reality" has been superseded by hyperreal virtual worlds with novel laws, dimensions, avatars and narratives
- Selection pressures prevent "total escape" being feasible
- Infrastructure maintenance is delegated to zombie AI

#5 Transhuman Psychedelia

- Analogues of cognition, volition, and emotion but with richer phenomenology
- New fundamental categories of experience discovered via genetic tinkering and pharmacological experimentation
- Unlocking modes of consciousness that make "*the weirdest DMT trip akin to watching paint dry*"

#6 Supersentience

- Ultra-high intensity experience
- Vast state-spaces of consciousness that have never been recruited for information-signaling purposes get discovered and amplified
- We may resemble sleepwalkers compared to our fourth-millennium successors
- Today being "awake" pales relative to "posthuman intensity of experience"

#7 Reversible Mind-Melding

- Tatiana and Krista Hogan share a "thalamic bridge"
- In the year 3000 cross-species mind-melding technologies ("reversible thalamic bridges") have led to a revolution in both:
  - ethics and
  - decision-theoretic rationality
- Personal Identity:
  - Open Individualism prevails

#8 The Anti-Speciesist Revolution

- Worldwide veganism (or at least invitrotarianism)
- Neutral "God's Eye" perspective-taking capacities have displaced factory-farms, slaughterhouses, and other "crimes against sentience" to the dustbin of history
- Contra "species essentialism" transhumans think of other sentient beings as different "manifestations of consciousness"
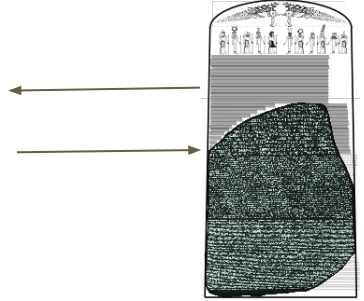
#9 Programmable Biospheres

- Ecosystem reworked to benefit rather than harm their inhabitants
- Cross-species fertility control via immunocontraception has replaced predation, starvation, and disease to regulate population sizes
- Utopian "wildlife parks"

#10 The Formalism of the TOE is Known

- The superposition principle as *the* fundamental principle of quantum mechanics (Dirac)
- The key to reality itself?
- Why is there something rather than nothing?
- Zero ontology
- Solutions of the master equation encode subjective modes of experience
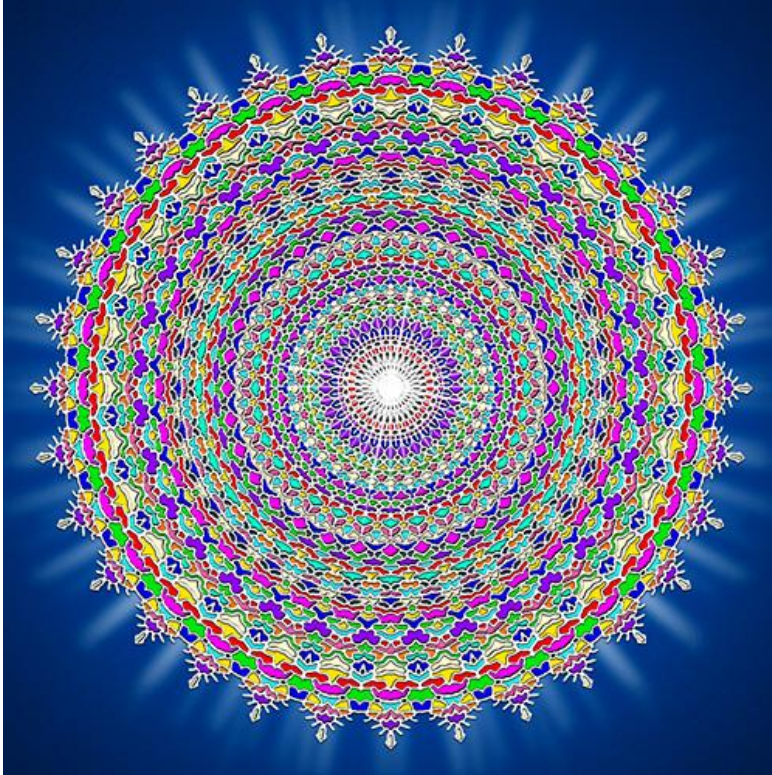
$$-\tfrac{1}{2}\partial_\nu g^a_\mu \partial_\nu g^a_\mu - g_s f^{abc}\partial_\mu g^a_\nu g^b_\mu g^c_\nu - \tfrac{1}{4}g_s^2 f^{abc} f^{ade} g^b_\mu g^c_\nu g^d_\mu g^e_\nu +$$
$$\tfrac{1}{2}ig_s^2(\bar{q}^\sigma_i \gamma^\mu q^\sigma_j)g^a_\mu + \bar{G}^a \partial^2 G^a + g_s f^{abc}\partial_\mu \bar{G}^a G^b g^c_\mu - \partial_\nu W^+_\mu \partial_\nu W^-_\mu -$$
$$M^2 W^+_\mu W^-_\mu - \tfrac{1}{2}\partial_\nu Z^0_\mu \partial_\nu Z^0_\mu - \tfrac{1}{2c_w^2}M^2 Z^0_\mu Z^0_\mu - \tfrac{1}{2}\partial_\mu A_\nu \partial_\mu A_\nu - \tfrac{1}{2}\partial_\mu H \partial_\mu H -$$
$$\tfrac{1}{2}m_h^2 H^2 - \partial_\mu \phi^+ \partial_\mu \phi^- - M^2 \phi^+ \phi^- - \tfrac{1}{2}\partial_\mu \phi^0 \partial_\mu \phi^0 - \tfrac{1}{2c_w^2}M \phi^0 \phi^0 - \beta_h[\tfrac{2M^2}{g^2}+$$
$$\tfrac{2M}{g}H + \tfrac{1}{2}(H^2 + \phi^0 \phi^0 + 2\phi^+ \phi^-)] + \tfrac{2M^4}{g^2}\alpha_h - igc_w[\partial_\nu Z^0_\mu (W^+_\mu W^-_\nu -$$
$$W^+_\nu W^-_\mu) - Z^0_\nu(W^+_\mu \partial_\nu W^-_\mu - W^-_\mu \partial_\nu W^+_\mu) + Z^0_\mu(W^+_\nu \partial_\nu W^-_\mu -$$
$$W^-_\nu \partial_\nu W^+_\mu)] - igs_w[\partial_\nu A_\mu (W^+_\mu W^-_\nu - W^+_\nu W^-_\mu) - A_\nu(W^+_\mu \partial_\nu W^-_\mu -$$
$$W^-_\mu \partial_\nu W^+_\mu) + A_\mu(W^+_\nu \partial_\nu W^-_\mu - W^-_\nu \partial_\nu W^+_\mu)] - \tfrac{1}{2}g^2 W^+_\mu W^-_\mu W^+_\nu W^-_\nu +$$
$$\tfrac{1}{2}g^2 W^+_\mu W^-_\nu W^+_\mu W^-_\nu + g^2 c_w^2(Z^0_\mu W^+_\mu Z^0_\nu W^-_\nu - Z^0_\mu Z^0_\mu W^+_\nu W^-_\nu) +$$
$$g^2 s_w^2(A_\mu W^+_\mu A_\nu W^-_\nu - A_\mu A_\mu W^+_\nu W^-_\nu) + g^2 s_w c_w[A_\mu Z^0_\nu(W^+_\mu W^-_\nu -$$
$$W^+_\nu W^-_\mu) - 2A_\mu Z^0_\mu W^+_\nu W^-_\nu] - g\alpha[H^3 + H\phi^0 \phi^0 + 2H\phi^+ \phi^-] -$$
$$\tfrac{1}{8}g^2 \alpha_h[H^4 + (\phi^0)^4 + 4(\phi^+ \phi^-)^2 + 4(\phi^0)^2 \phi^+ \phi^- + 4H^2 \phi^+ \phi^- + 2(\phi^0)^2 H^2] -$$
$$gMW^+_\mu W^-_\mu H - \tfrac{1}{2}g\tfrac{M}{c_w^2}Z^0_\mu Z^0_\mu H - \tfrac{1}{2}ig[W^+_\mu(\phi^0 \partial_\mu \phi^- - \phi^- \partial_\mu \phi^0) -$$
$$W^-_\mu(\phi^0 \partial_\mu \phi^+ - \phi^+ \partial_\mu \phi^0)] + \tfrac{1}{2}g[W^+_\mu(H\partial_\mu \phi^- - \phi^- \partial_\mu H) - W^-_\mu(H\partial_\mu \phi^+ -$$
$$\phi^+ \partial_\mu H)] + \tfrac{1}{2}g\tfrac{1}{c_w}(Z^0_\mu(H\partial_\mu \phi^0 - \phi^0 \partial_\mu H) - ig\tfrac{s_w^2}{c_w}MZ^0_\mu(W^+_\mu \phi^- - W^-_\mu \phi^+) +$$
$$igs_w MA_\mu(W^+_\mu \phi^- - W^-_\mu \phi^+) - ig\tfrac{1-2c_w^2}{2c_w}Z^0_\mu(\phi^+ \partial_\mu \phi^- - \phi^- \partial_\mu \phi^+) +$$
$$igs_w A_\mu(\phi^+ \partial_\mu \phi^- - \phi^- \partial_\mu \phi^+) - \tfrac{1}{4}g^2 W^+_\mu W^-_\mu[H^2 + (\phi^0)^2 + 2\phi^+ \phi^-] -$$
$$\tfrac{1}{4}g^2 \tfrac{1}{c_w^2}Z^0_\mu Z^0_\mu[H^2 + (\phi^0)^2 + 2(2s_w^2 - 1)^2 \phi^+ \phi^-] - \tfrac{1}{2}g^2 \tfrac{s_w^2}{c_w}Z^0_\mu \phi^0(W^+_\mu \phi^- +$$
$$W^-_\mu \phi^+) - \tfrac{1}{2}ig^2 \tfrac{s_w^2}{c_w}Z^0_\mu H(W^+_\mu \phi^- - W^-_\mu \phi^+) + \tfrac{1}{2}g^2 s_w A_\mu \phi^0(W^+_\mu \phi^- +$$
$$W^-_\mu \phi^+) + \tfrac{1}{2}ig^2 s_w A_\mu H(W^+_\mu \phi^- - W^-_\mu \phi^+) - g^2 \tfrac{s_w}{c_w}(2c_w^2 - 1)Z^0_\mu A_\mu \phi^+ \phi^- -$$
$$g^1 s_w^2 A_\mu A_\mu \phi^+ \phi^- - \bar{e}^\lambda(\gamma\partial + m_e^\lambda)e^\lambda - \bar{\nu}^\lambda \gamma \partial \nu^\lambda - \bar{u}_j^\lambda(\gamma\partial + m_u^\lambda)u_j^\lambda -$$
$$\bar{d}_j^\lambda(\gamma\partial + m_d^\lambda)d_j^\lambda + igs_w A_\mu[-(\bar{e}^\lambda \gamma^\mu e^\lambda) + \tfrac{2}{3}(\bar{u}_j^\lambda \gamma^\mu u_j^\lambda) - \tfrac{1}{3}(\bar{d}_j^\lambda \gamma^\mu d_j^\lambda)] +$$
$$\tfrac{ig}{4c_w}Z^0_\mu[(\bar{\nu}^\lambda \gamma^\mu(1 + \gamma^5)\nu^\lambda) + (\bar{e}^\lambda \gamma^\mu(4s_w^2 - 1 - \gamma^5)e^\lambda) + (\bar{u}_j^\lambda \gamma^\mu(\tfrac{4}{3}s_w^2 -$$
$$1 - \gamma^5)u_j^\lambda) + (\bar{d}_j^\lambda \gamma^\mu(1 - \tfrac{8}{3}s_w^2 - \gamma^5)d_j^\lambda)] + \tfrac{ig}{2\sqrt{2}}W^+_\mu[(\bar{\nu}^\lambda \gamma^\mu(1 + \gamma^5)e^\lambda) +$$
$$(\bar{u}_j^\lambda \gamma^\mu(1 + \gamma^5)C_{\lambda\kappa}d_j^\kappa)] + \tfrac{ig}{2\sqrt{2}}W^-_\mu[(\bar{e}^\lambda \gamma^\mu(1 + \gamma^5)\nu^\lambda) + (\bar{d}_j^\kappa C^\dagger_{\lambda\kappa}\gamma^\mu(1 +$$
$$\gamma^5)u_j^\lambda)] + \tfrac{ig}{2\sqrt{2}}\tfrac{m_\lambda^\lambda}{M}[-\phi^+(\bar{\nu}^\lambda(1 - \gamma^5)e^\lambda) + \phi^-(\bar{e}^\lambda(1 + \gamma^5)\nu^\lambda)] -$$
$$\tfrac{g}{2}\tfrac{m_\lambda^\lambda}{M}[H(\bar{e}^\lambda e^\lambda) + i\phi^0(\bar{e}^\lambda \gamma^5 e^\lambda)] + \tfrac{ig}{2M\sqrt{2}}\phi^+[-m_d^\kappa(\bar{u}_j^\lambda C_{\lambda\kappa}(1 - \gamma^5)d_j^\kappa) +$$
$$m_u^\lambda(\bar{u}_j^\lambda C_{\lambda\kappa}(1 + \gamma^5)d_j^\kappa] + \tfrac{ig}{2M\sqrt{2}}\phi^-[m_d^\lambda(\bar{d}_j^\lambda C^\dagger_{\lambda\kappa}(1 + \gamma^5)u_j^\kappa) - m_u^\kappa(\bar{d}_j^\lambda C^\dagger_{\lambda\kappa}(1-$$
$$\gamma^5)u_j^\kappa] - \tfrac{g}{2}\tfrac{m_\lambda^\lambda}{M}H(\bar{u}_j^\lambda u_j^\lambda) - \tfrac{g}{2}\tfrac{m_d^\lambda}{M}H(\bar{d}_j^\lambda d_j^\lambda) + \tfrac{ig}{2}\tfrac{m_u^\lambda}{M}\phi^0(\bar{u}_j^\lambda \gamma^5 u_j^\lambda) -$$
$$\tfrac{ig}{2}\tfrac{m_d^\lambda}{M}\phi^0(\bar{d}_j^\lambda \gamma^5 d_j^\lambda) + \bar{X}^+(\partial^2 - M^2)X^+ + \bar{X}^-(\partial^2 - M^2)X^- + \bar{X}^0(\partial^2 -$$
$$\tfrac{M^2}{c_w^2})X^0 + \bar{Y}\partial^2 Y + igc_w W^+_\mu(\partial_\mu \bar{X}^0 X^- - \partial_\mu \bar{X}^+ X^0) + igs_w W^+_\mu(\partial_\mu \bar{Y}X^- -$$
$$\partial_\mu \bar{X}^+ Y) + igc_w W^-_\mu(\partial_\mu \bar{X}^- X^0 - \partial_\mu \bar{X}^0 X^+) + igs_w W^-_\mu(\partial_\mu \bar{X}^- Y -$$
$$\partial_\mu \bar{Y}X^+) + igc_w Z^0_\mu(\partial_\mu \bar{X}^+ X^+ - \partial_\mu \bar{X}^- X^-) + igs_w A_\mu(\partial_\mu \bar{X}^+ X^+ -$$
$$\partial_\mu \bar{X}^- X^-) - \tfrac{1}{2}gM[\bar{X}^+ X^+ H + \bar{X}^- X^- H + \tfrac{1}{c_w^2}\bar{X}^0 X^0 H] +$$
$$\tfrac{1-2c_w^2}{2c_w}igM[\bar{X}^+ X^0 \phi^+ - \bar{X}^- X^0 \phi^-] + \tfrac{1}{2c_w}igM[\bar{X}^0 X^- \phi^+ - \bar{X}^0 X^+ \phi^-] +$$
$$igMs_w[\bar{X}^0 X^- \phi^+ - \bar{X}^0 X^+ \phi^-] + \tfrac{1}{2}igM[\bar{X}^+ X^+ \phi^0 - \bar{X}^- X^- \phi^0]$$

No "element of reality" (Einstein) is missing from the formalism of physics.

The solutions to the equations encode the values of consciousness.

#11 The Hard Problem of Consciousness is Solved

Any satisfactory theory of consciousness should explain:

1. Its Existence
2. Binding
3. Palette of Qualia
4. Causal Power

By 3000 only one conjecture with predictive power has not been falsified...
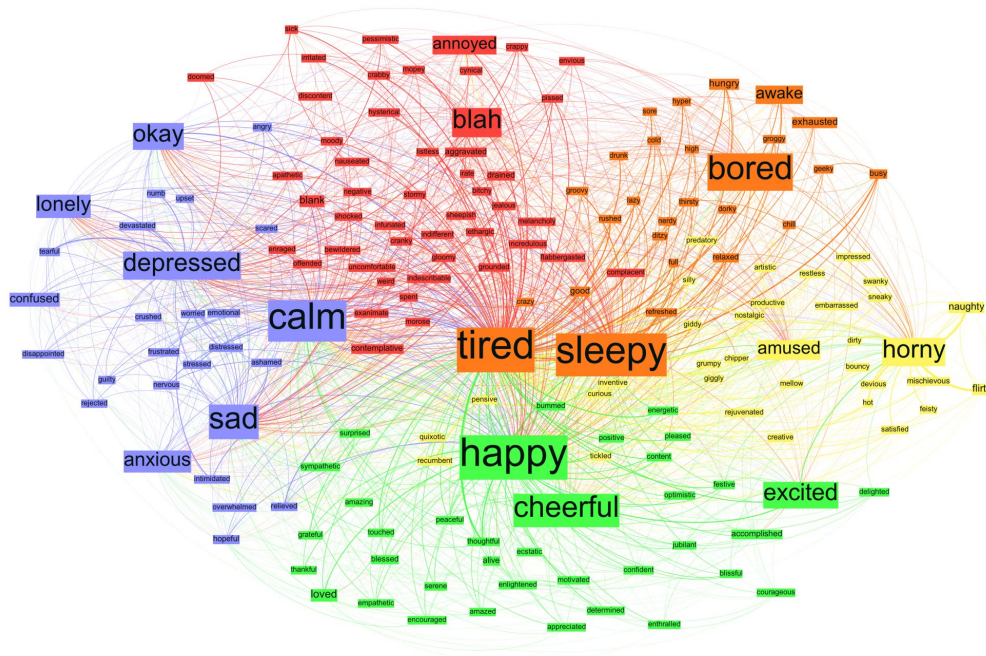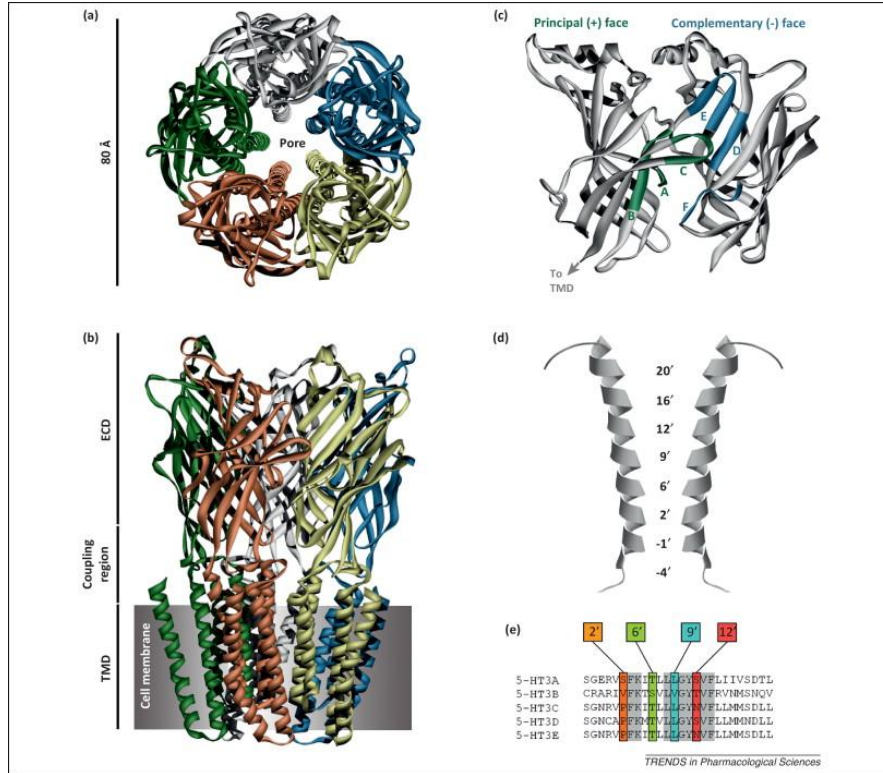
#12 The Meaning of Life Resolved

- Depressive states seem/feel "absent of meaning"
- Manic and hyperthymic states feel "saturated with significance"
- The key to meaning is valence/hedonic tone/bliss
- Hence, in the year 3000 every moment is sublimely meaningful

#13 Beautiful New Emotions

- Darwinian emotions have been retired
- Novel emotions synthesized
  - Their "raw feels" encephalised and integrated into the CNS
- All emotion is beautiful

#14 Effectively Unlimited Material Abundance

TRENDS in Pharmacological Sciences

- Molecular nanotechnology manufacturing
- Status goods
- Artificially scarce digital goods
  - Played an instrumental role in bootstrapping an economy of abundance but are no longer necessary
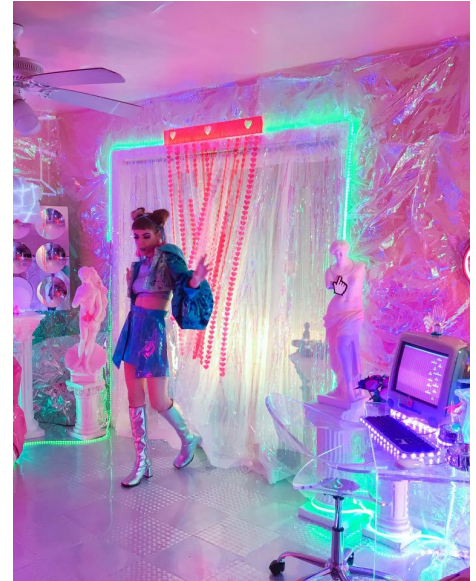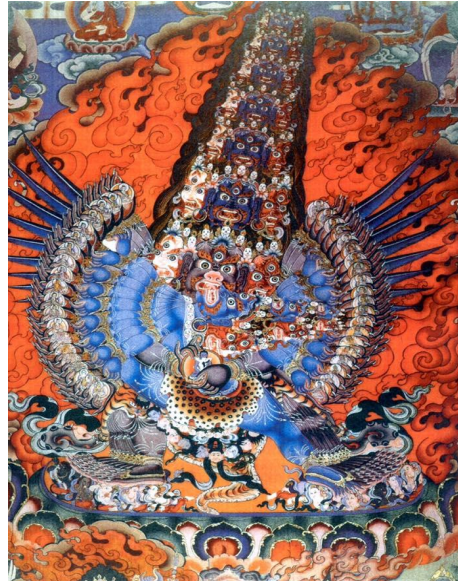- Critically: the substrate of pure bliss need to be rationed…

#15 Posthuman Aesthetics

- Molecular signatures of aesthetic experience has been catalogued and studied in depth
- Superhuman beauty is the norm in the experience of transhumans
- What passed for "Great Art" in the Darwinian era looks like cave painting
- Blissful but not "blissed out"

#16 Gender Transformation

- "Gender" is a thing of the past
- "Gendered" cognitive styles are universally accessible to all transhumans
  - empathizing
  - systematizing
- Many transhumans are:
  - asexual
  - pan-sexual
  - hyper-sexual
  - sexually-inquisitive

#17 Physical Superhealth

- "Better than well"
- SCN9A "low pain" alleles
- Paradise engineering as a rigorous discipline

#18 World Government

- Policy is offloaded to ultra-intelligent (game-theoretically optimal) zombie AI
- Conflict-resolution procedures involve "mind-melds"

#19 Historical Amnesia

- Suffering is literally *inconceivable*
- Posthumans can understand experience below "hedonic zero" only by analogy ("phase transition")
- Will Darwinian life be memorialized or forgotten?
- We don't *enjoy* reading about the Dark Ages…

#20 Super-Spirituality

- Refine, amplify, and re-purpose the molecular signatures of spiritual experience
- Are these *glorified tickles* or is there something more to it? Only time will tell...
- Perhaps personal identity is key here: Open Individualism and enhanced hedonic tone as the default mode could be the key to Super-Spirituality

#21 The Reproductive Revolution

- Reproduction is uncommon in a post-aging society
- Transhumans are "born" from extra-uterine environments
- No more reckless genetic experimentation of having "kids the natural way"

#22 Globish ("English Plus")

- Automated real-time translation lead to… Globish
- Spoken, written, or "telepathically" communicated to "humble minds" who have not uplifted…
- For others:
  - Language "translation" attempts between paradigmatically inconmensurable state-spaces of consciousness exist, but…
  - Untranslatable state-specific concepts abound

#23 Plans for Galactic Colonization

- 3rd Millennium Terraforming:
  - Cryonics, crude reward pathway enhancement, immersive VR, and breakthrough rocket propulsion…
  - Early stages for nearby solar systems, but…
- 4th Millennium Space Expansion:
  - Big Debate: Light-speed Hedonium Seeding vs. Gradients of Bliss Biology
  - No one objects to replacing unprogrammed matter with the molecular substrate of pure bliss

#24 The Momentous "Unknown Unknown"

- "And then I woke up"
- Are we missing the *key to the plot* for reality as a whole?
- Examples:
  - Buddhist Nirvana, The Second Coming of Christ, Simulation Hypothesis, AI Intelligence Explosion, "The Singularity", Mysterianism
- Ancient skeptics were perhaps more in touch with their level of understanding than intellectual titans like Plato and Aristotle

What next? How can I contribute?

- Headquarters
- Visiting Scholars
- Investigating the molecular substrate of pure bliss
  - In-vitro "mini brains"
  - MDMA intracellular signaling
- Transcranial Magnetic Stimulation (taking the "God Helmet" further)
- Empirically testing theories for the pleasure-pain axis (valence)
- Reverse-engineering "mystical experiences" (felt sense of Open Individualism) and prosocial empathogenic states
- "The Manhattan Project of Consciousness"

Resources

- **David Pearce's articles**. Salient articles:
  - The Hedonistic Imperative
  - The Biointelligence Explosion
  - Compassionate Biology
  - Non-materialist Physicalism (an empirically-testable panpsychist theory of consciousness)
- **Qualia Research Institute**
- **Qualia Computing** (Andrés Gómez Emilsson, QRI co-founder). Salient articles:
  - Wireheading Done Right
  - Hyperbolic Geometry of DMT Experiences
  - Qualia Formalism
  - Quantifying Bliss
- **Open Theory** (Mike Johnson, QRI co-founder). Salient articles:
  - A Future for Neuroscience
  - Principia Qualia
  - Why we seek out pleasure: the Symmetry Theory of Homeostatic Regulation