

INSTITUTE FOR ETHICS
AND EMERGING TECHNOLOGIES

Becoming a Better Person:

Modifying Cognition and Emotion to Enhance Virtue

Institute for Ethics and Emerging Technologies

For more information:

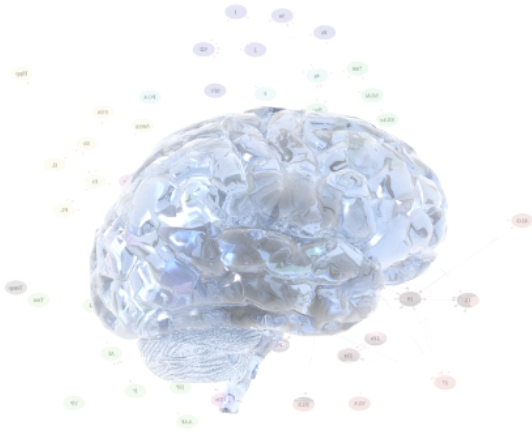
<http://ieet.org>

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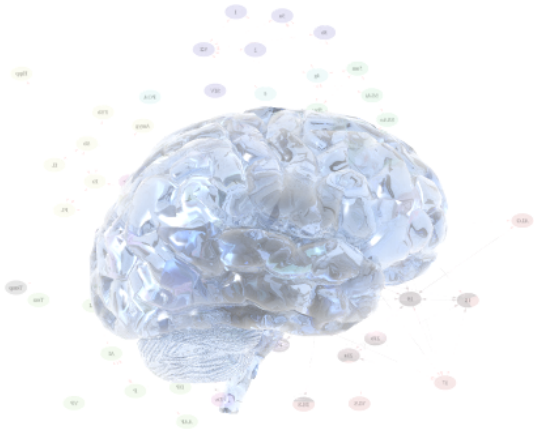
J. Hughes



Self-Control and Responsibility

- Understanding causes of behavior allegedly undermines personal accountability
- But enhancement technologies make us even more responsible

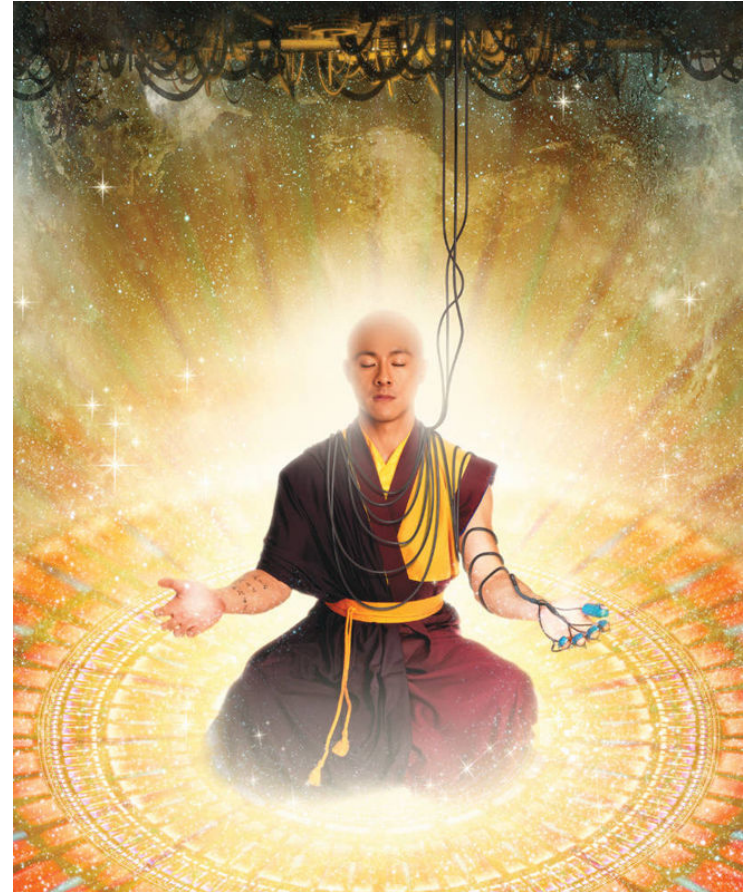




Taking Responsibility

“So who is to tell us that being human and having dignity means sticking with a set of emotional responses that are the accidental byproduct of our evolutionary history? ... why don't we simply accept our destiny as creatures who modify themselves?”

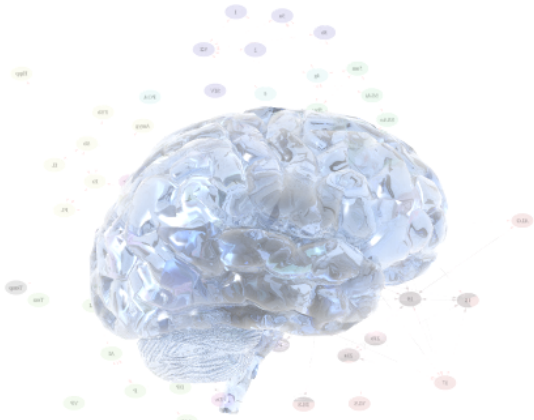
- Francis Fukuyama, *Our Posthuman Future*





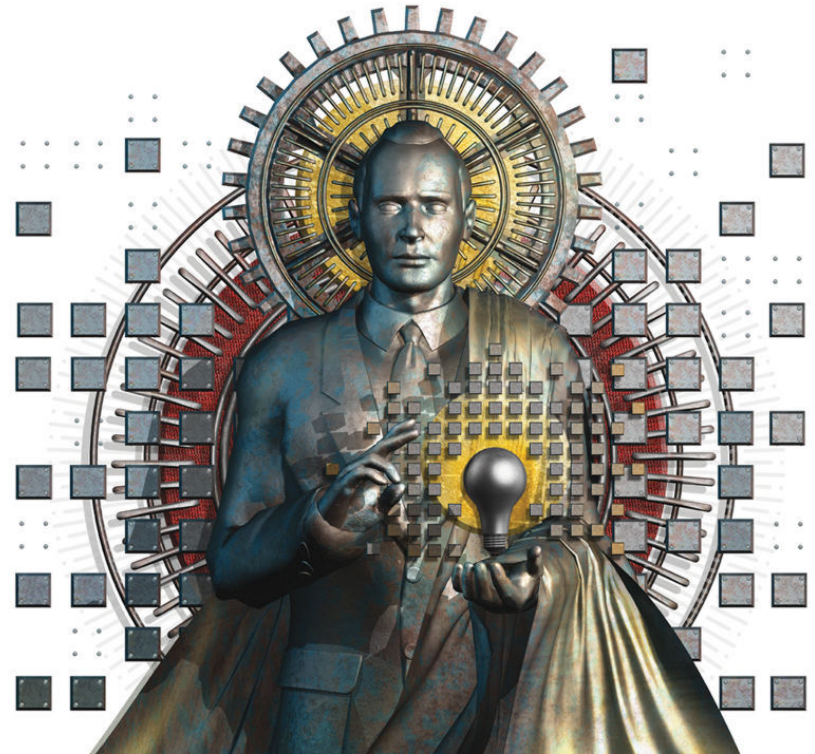
Better Tools than Willpower

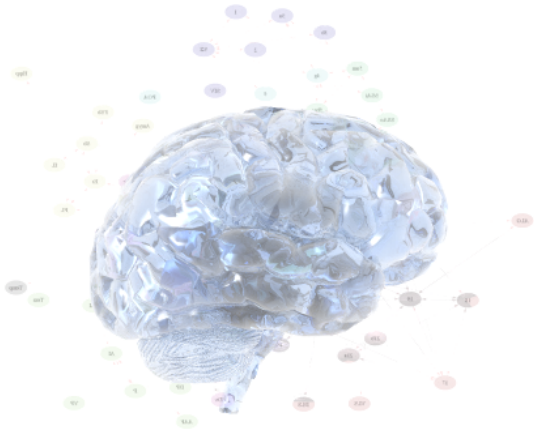




Obligated to Attempt Self-Mastery

- Obligation to use or not use neurotechnology for self-mastery
- Immorality of intoxication when it endangers others
- Immorality of not drinking coffee or taking modafinil when it endangers others

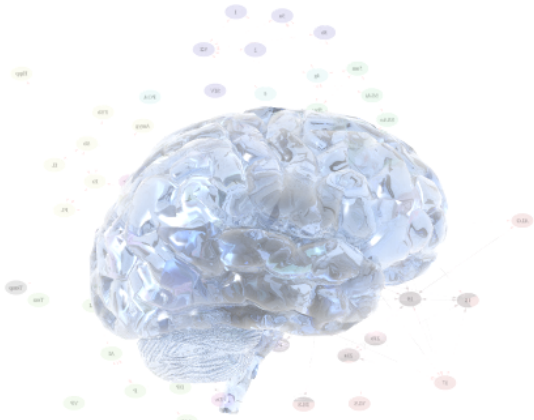




Suppressing Vice, Enhancing Virtue

- Causes of auto accidents
- Alcohol
- Cell-phones
- Fatigue

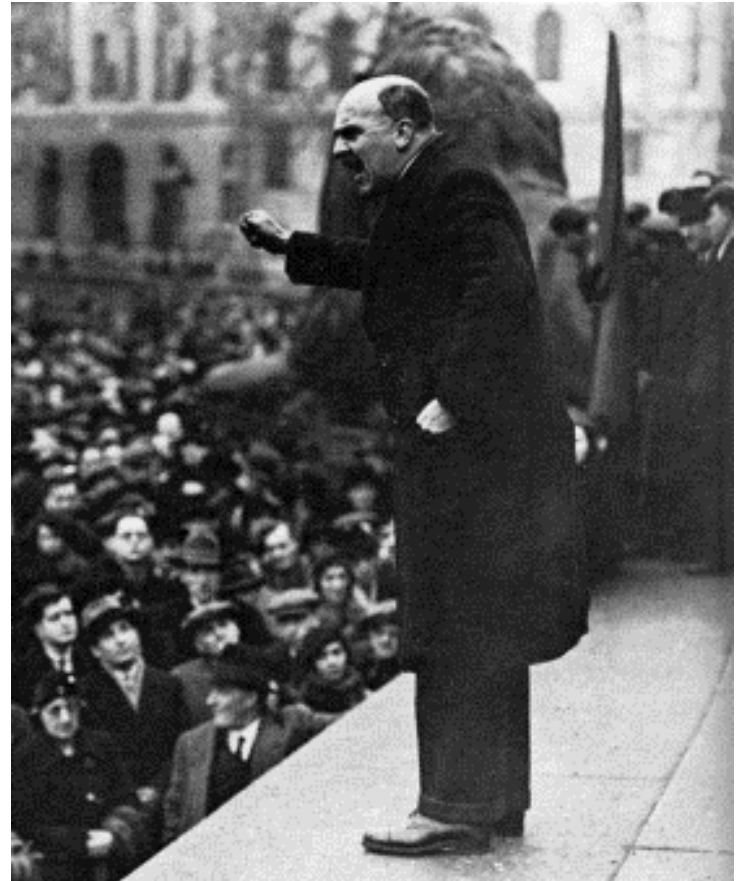


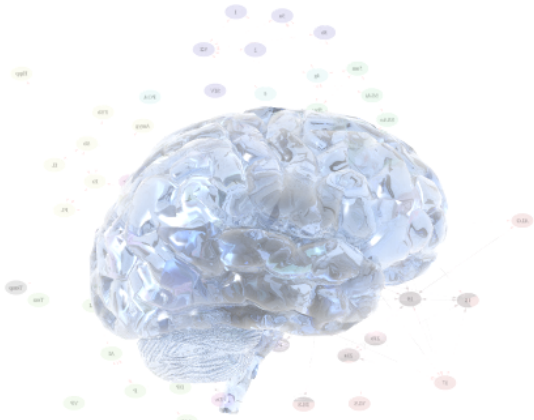


Controlling Our Vices

“We may be able... to control our passions by some more direct method than fasting and flagellation...to deal with perverted instincts by physiology rather than prison.”

- JBS Haldane, “Daedalus, or Science and the Future”

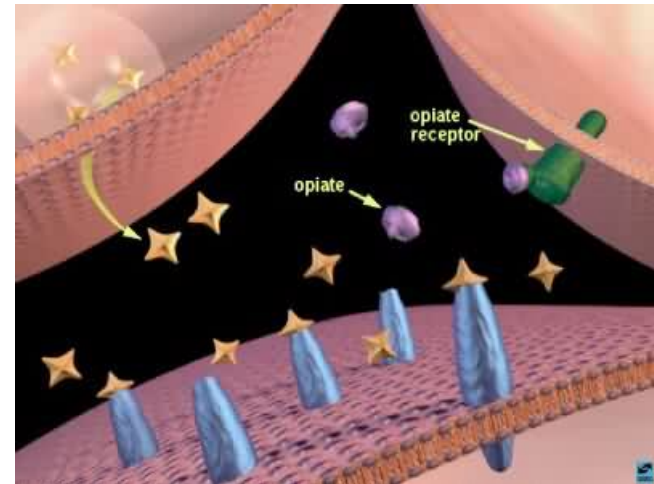


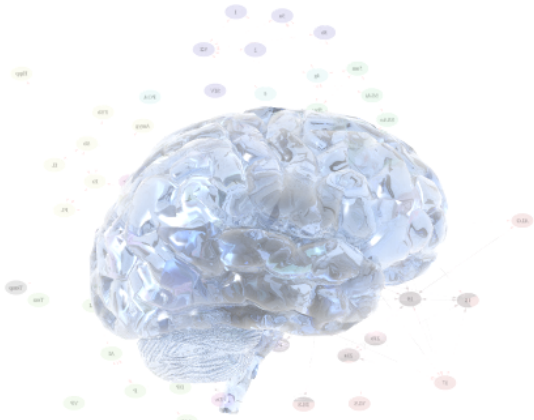


Therapies for Drug Dependency

Alcohol aversion drugs
Buprenorphine for opiates
Vaccines and gene
therapies to prevent or
cure:

- Alcoholism
- Cocaine addiction
- Heroin addiction
- Nicotine dependency

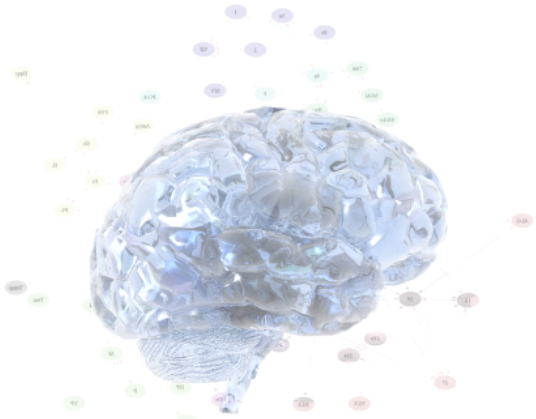




Sex Addiction and Fidelity

- SSRIs used to treat sex addiction
- Changing one gene in voles makes them monogamous
- Modulated by vasopressin-dopamine connection: learning to associate pleasure with a mate

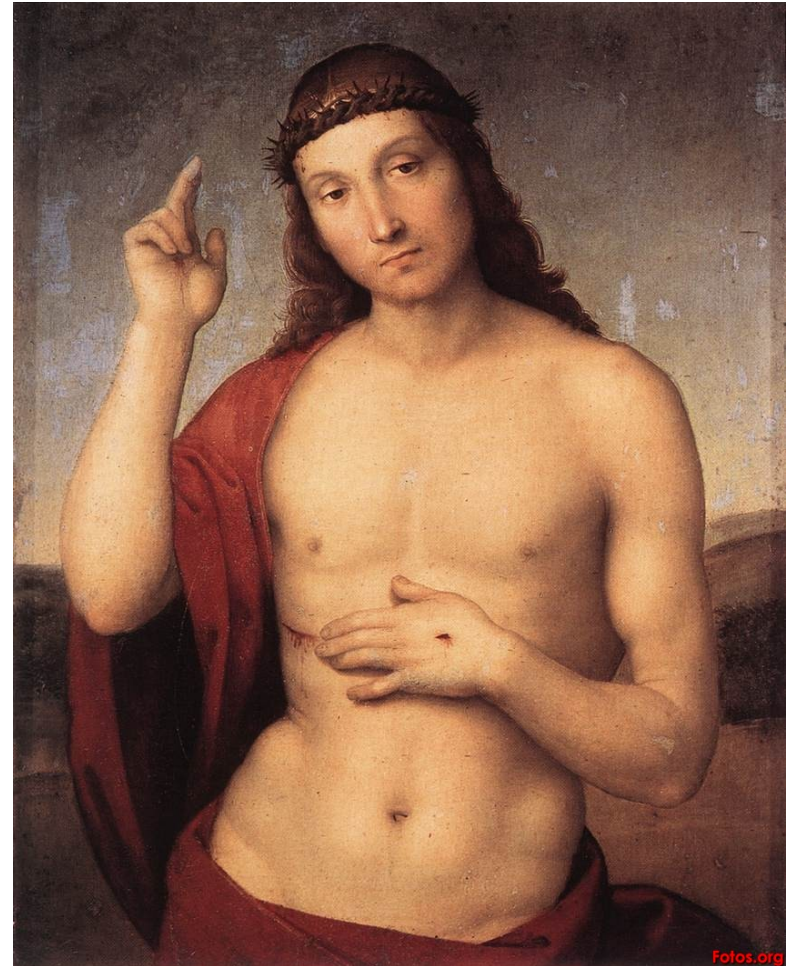


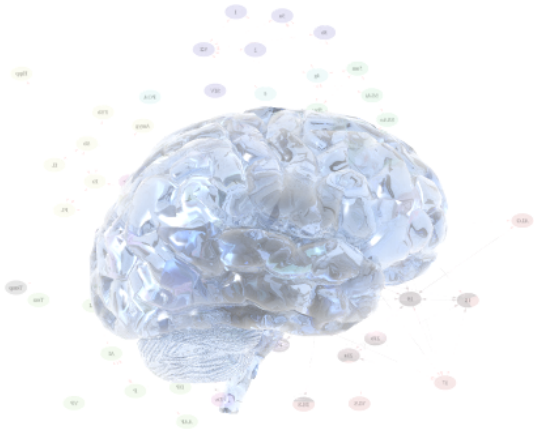


Testosterone Suppression

Matthew 19:11-12

Jesus: "Not everyone can accept this word, but only those to whom it has been given. For some are eunuchs because they were born that way; others were made that way by men; and others have renounced marriage because of the kingdom of heaven. The one who can accept this should accept it."

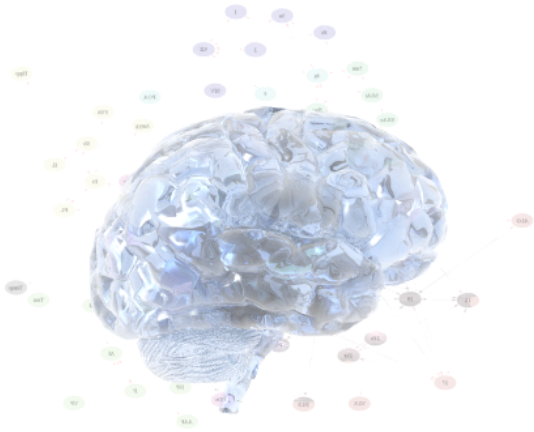




Xenophobia Disorder

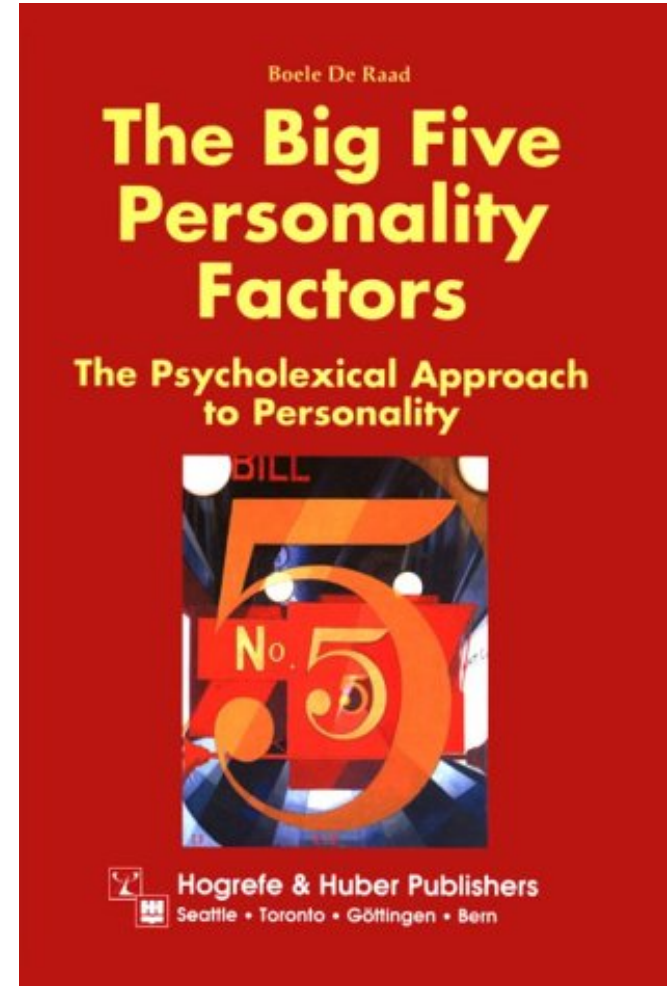
- Attitudes toward immigrants has a genetic component
- Debate over pathological racism & homophobia as mental disorder

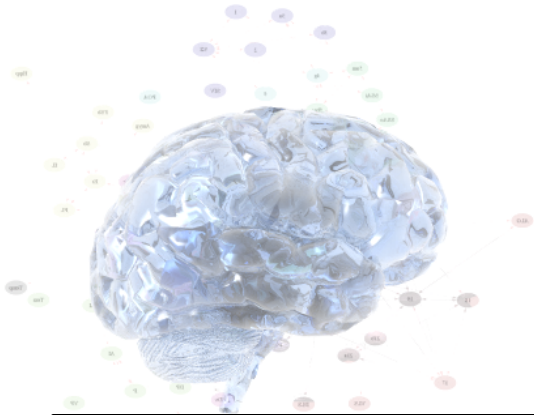




Five Personality Factors

- **Neuroticism**
- **Extraversion**
- **Agreeableness**
- **Conscientiousness**
- **Openness to experience**





Positive Psychology

$$S + C + V = H$$

Character

- Wisdom and Knowledge
- Courage
- Humanity
- Justice
- Temperance
- Transcendence

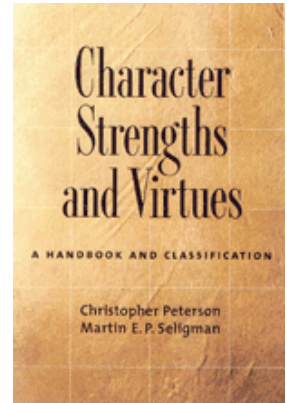
Happiness



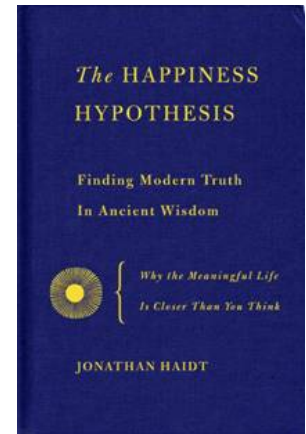
Health

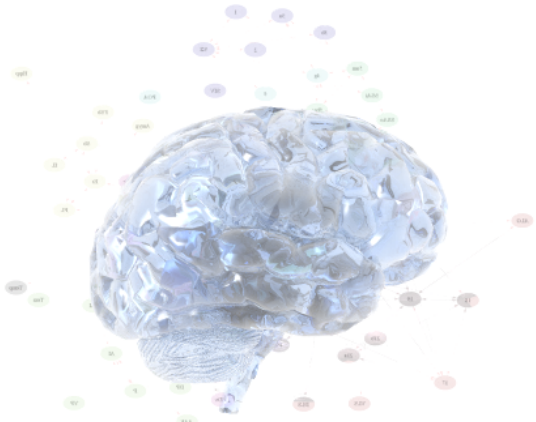


Martin Seligman Ph.D.



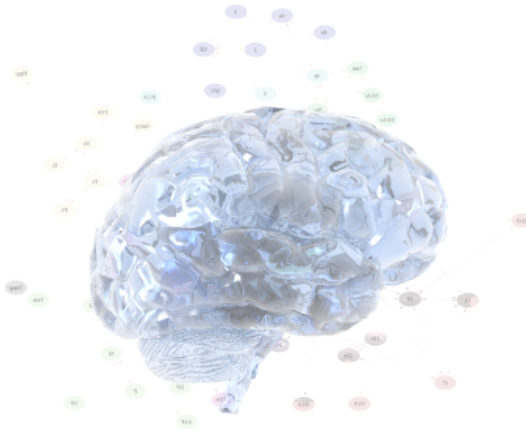
Jon Haidt Ph.D.





Personality, Virtues & Tech

Personality Factors	Character & Virtues	Potential Enhancers
Agreeableness	Humanity, Compassion	Oxytocin, Endorphins (PMS), Dilantin (aggression)
Conscientiousness	Temperance & Self-discipline	ADD stimulants, testosterone, vasopressin, norepinephrine
Neuroticism	Equanimity, Transcendence	SSRIs, cognitive behavioral therapy
Extraversion	Courage, Diligence	Modafanil, testosterone, coffee
Openness to experience	Wisdom & Knowledge Transcendence	Methylphenidate, meditation, psychedelics, MDMA



EQ, Agreeableness, Empathy

Enhancing the
genetic and
neurophysiological
bases of EQ,
empathy and
agreeableness

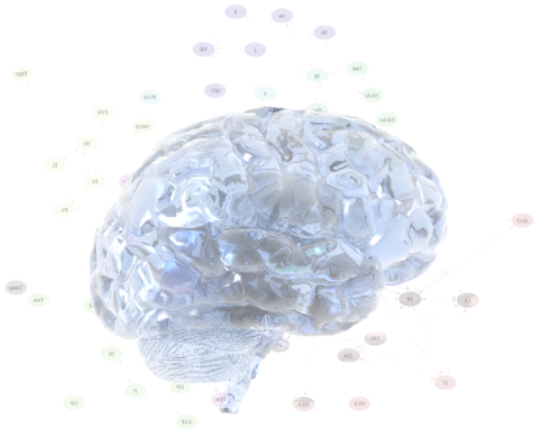
Scientists find fear gene

Thu Nov 17, 3:32 PM ET

Scientists may have found a gene for fear -- a gene that controls prod responses.

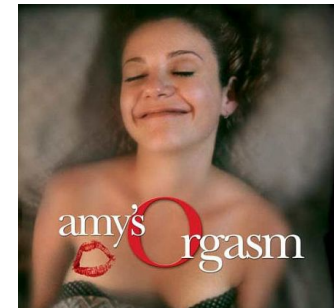
Their finding, published on Thursday, could lead to new treatments fo and generalized anxiety

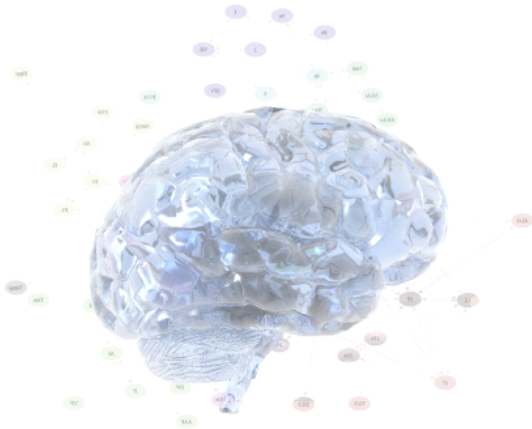




Oxytocin and Trust

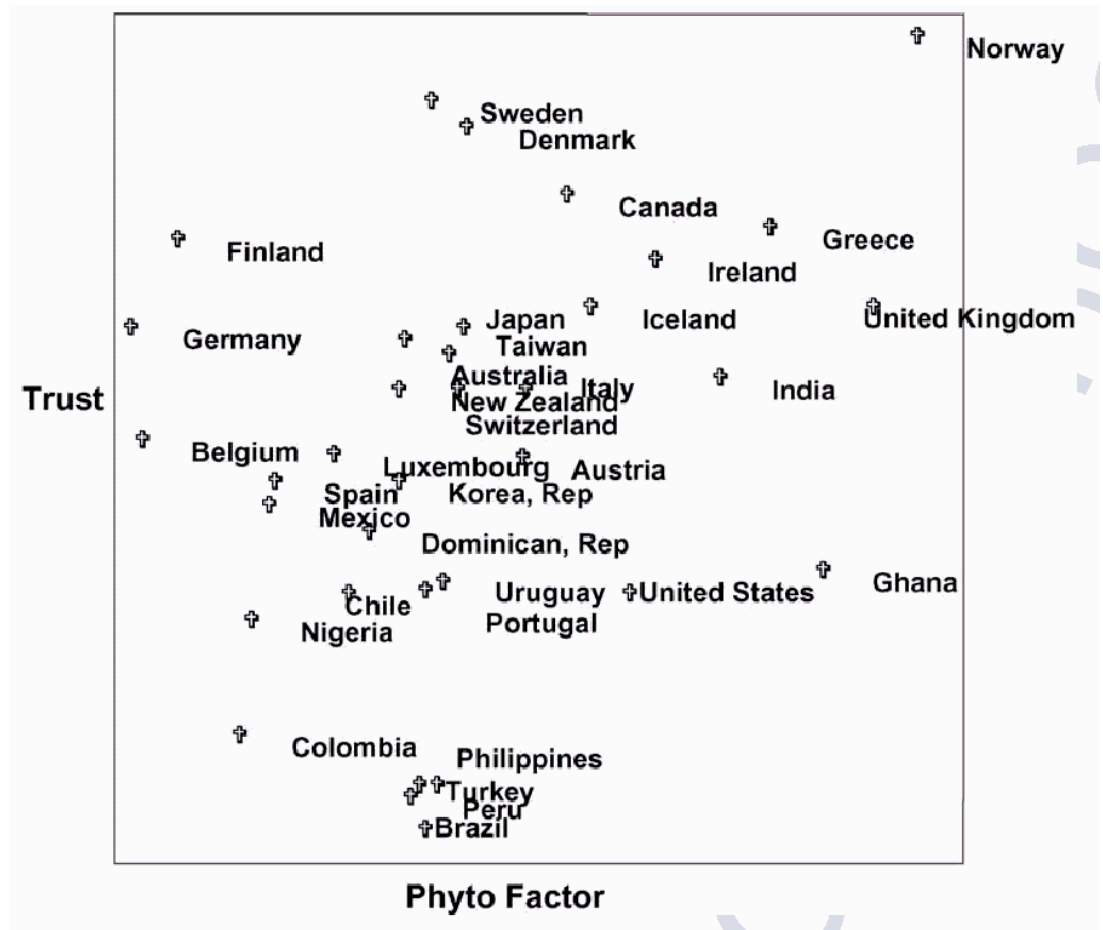
- Breastfeeding
- Orgasm
- Bonding and trust
- “Neuroactive hormones and interpersonal trust: International evidence” Zak & Fakhar, Economics and Human Biology

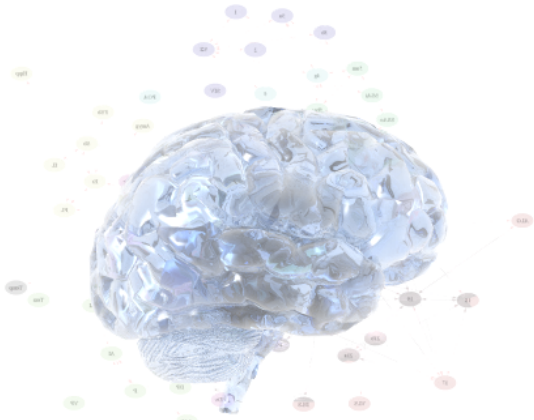




Oxytocin & Phytochemicals

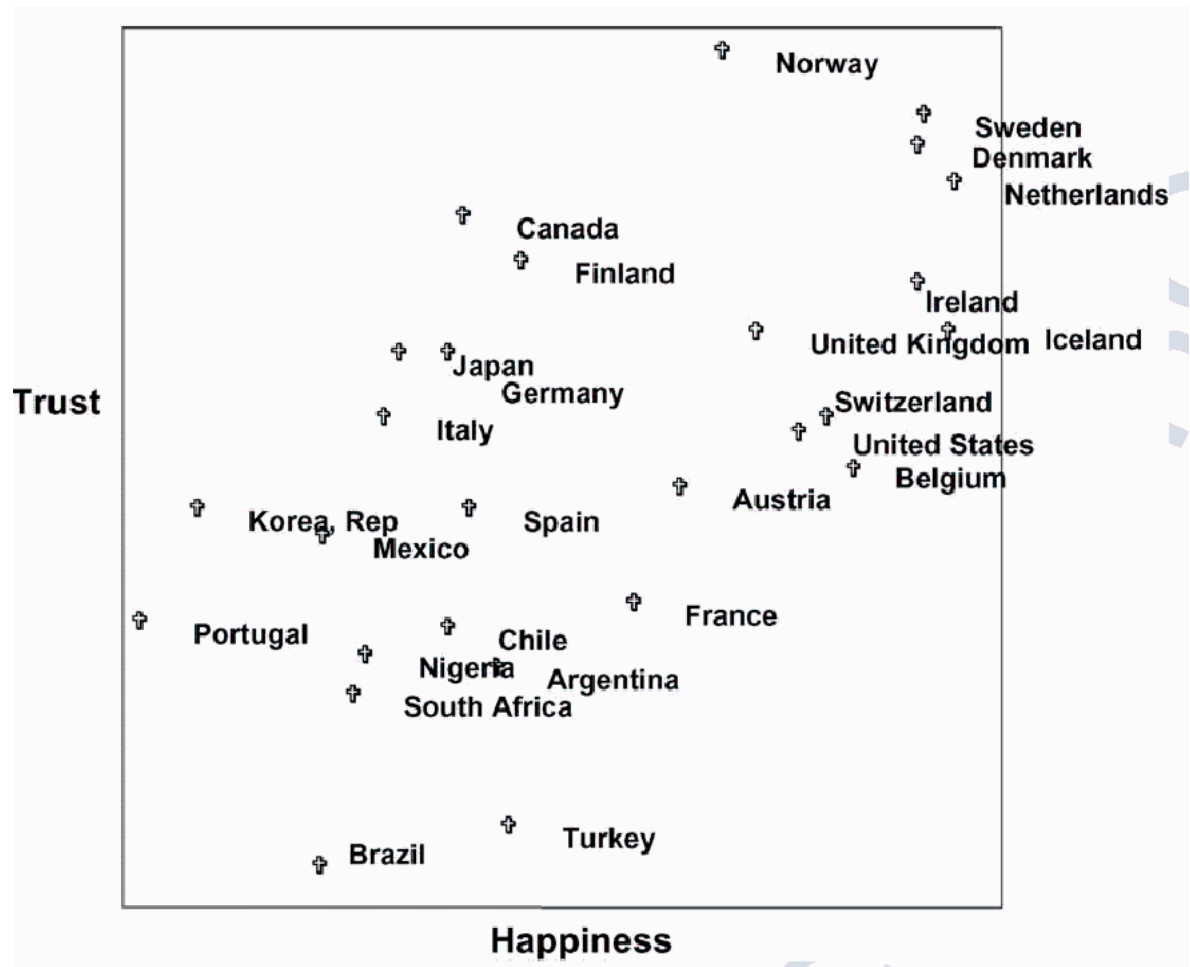
- Stigmasterol
- Campesterol
- b-Sitosterol
- Quercetin
- Myricentin
- Kaempferol
- Boron

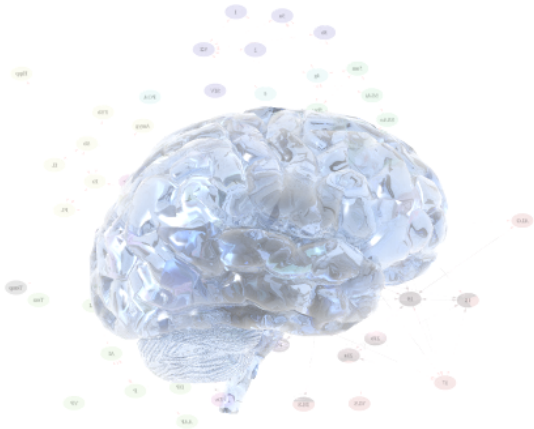




Trust & Happiness

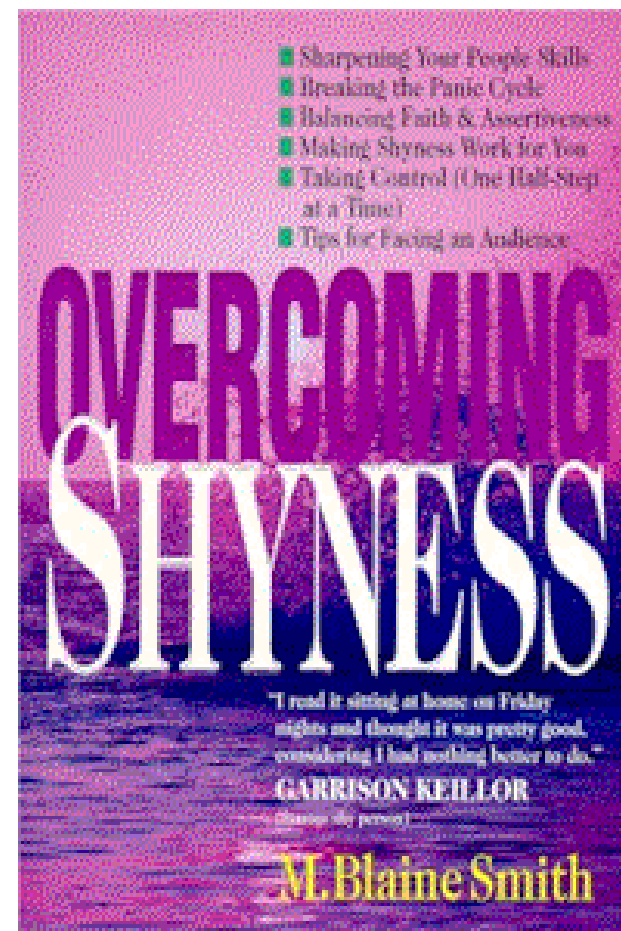
- Trust supports happiness and social cooperation

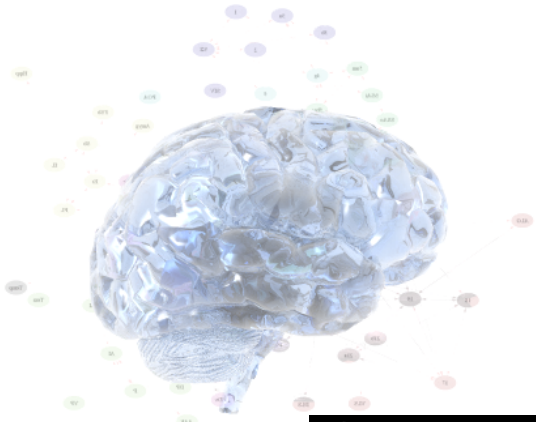




Social Anxiety Disorder

- Cognitive-Behavioral Therapy
- SSRIs
- Beta-blockers
- Benzodiazepines
- Monoamine oxidase inhibitors





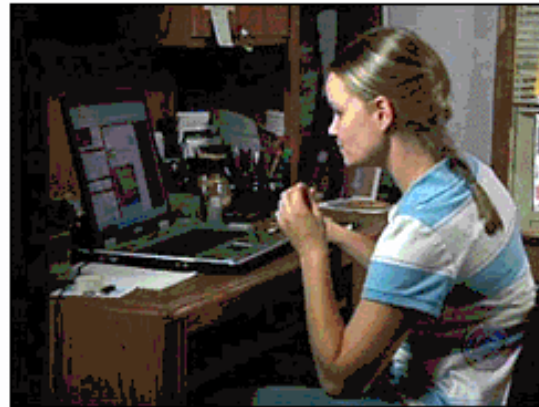
Electronic Community



Online Games Provide Social Connection

Researchers Say Players Are Socializing, Not Shunning People

Aug. 18, 2006



(WebMD) Online video games may have some social perks, a new study shows.

The study, published in the July edition of the Journal of Computer-Mediated Communication, focuses on large, collaborative games called MMOs (massively multiplayer online games).

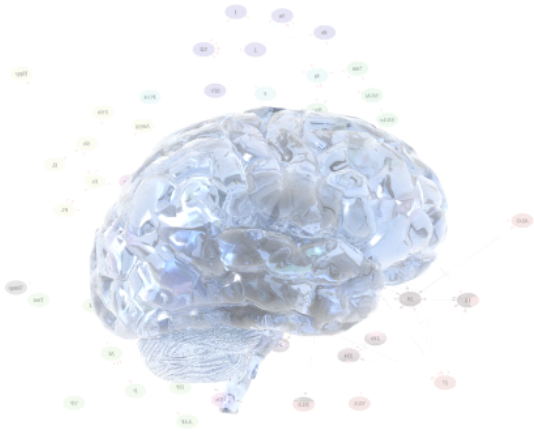
(CBS)

QUOTE

"Spending time in these social games helps people meet others not like them, even if it doesn't always lead to strong friendships."

Players may spend hours absorbed in those games. But that doesn't necessarily mean they're antisocial, write Constance Steinkuehler, Ph.D., and Dmitri Williams, Ph.D.

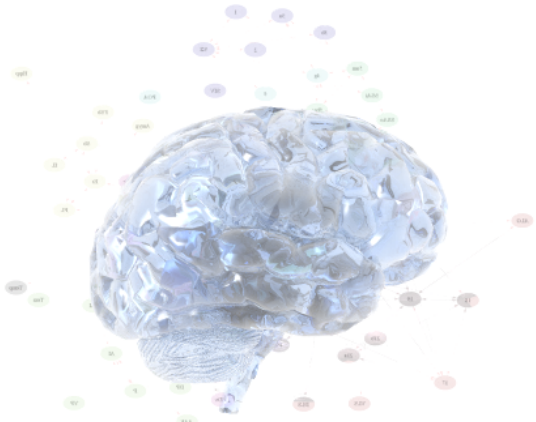
Steinkuehler is an assistant professor of educational



Open-Mindedness & Coffee

- Caffeine improves mental function, and makes people more likely to change their beliefs





Coffee and the Enlightenment

Beer was a “Foggy Ale” that
“besieg'd our Brains”

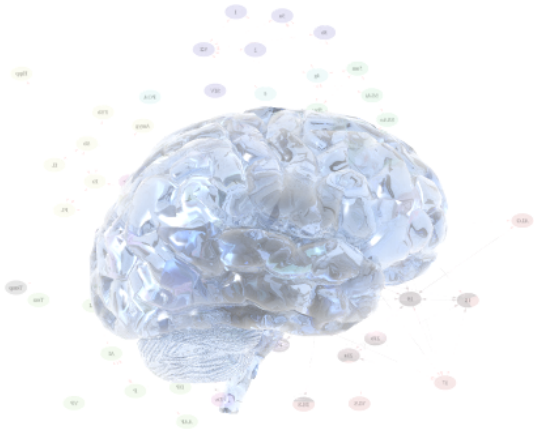
Coffee:

...that Grave and
Wholesome Liquor,
that heals the Stomach,
makes the Genius quicker,
Relieves the Memory,
revives the Sad,
and cheers the Spirits,
without making Mad.

Anonymous 1674



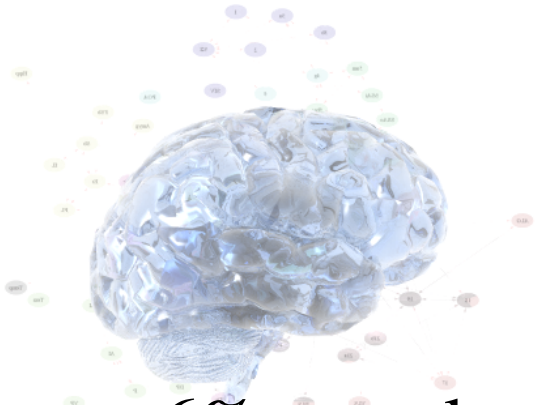
Coffeehouses: “penny universities”



Conscientiousness and Emotional Control

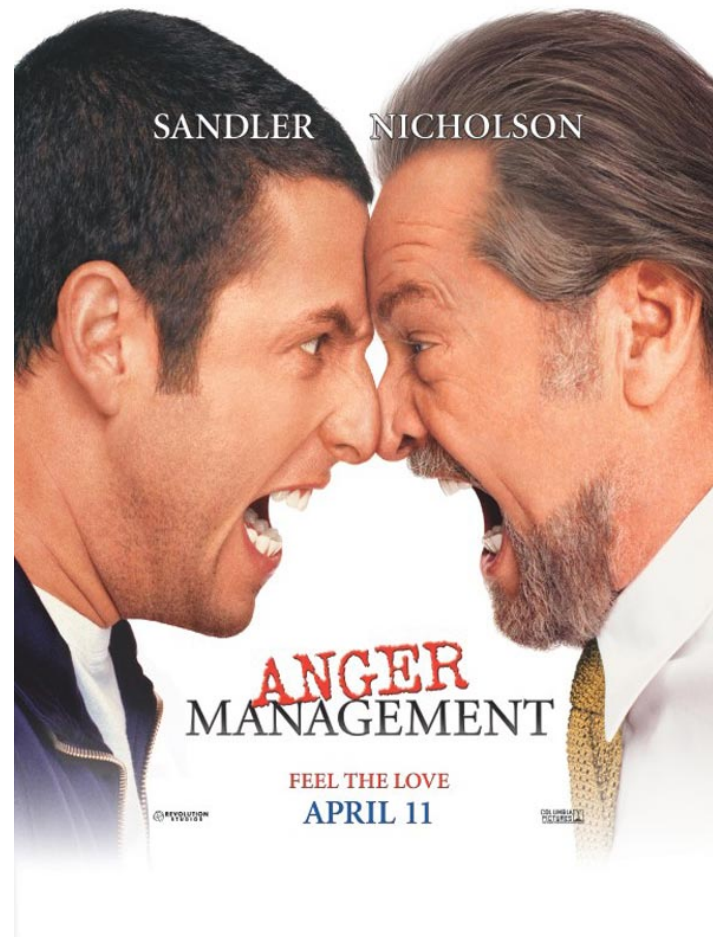
- Emotional self-control
- Ability to suppress conditioned responses
- Ability to carry through on commitments
- Too much conscientiousness can make you stuffy and unspontaneous

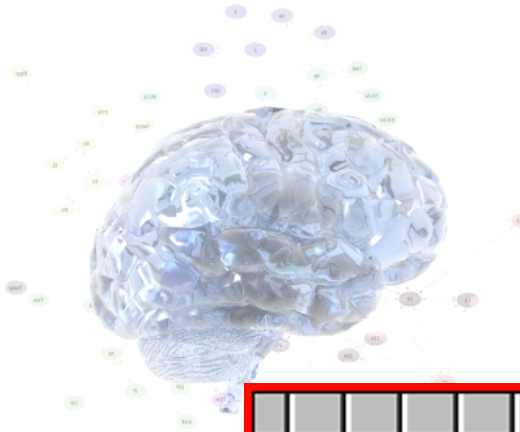




Intermittent Explosive Disorder

- 6% prevalence?
- Brain lesions, genetically linked
- an average of 43 attacks in their lifetime resulting in \$1,359 of property damage
- Treatments: antidepressants, antipsychotics, beta-blockers, alpha(2)-agonists, phenytoin and mood stabilizers.



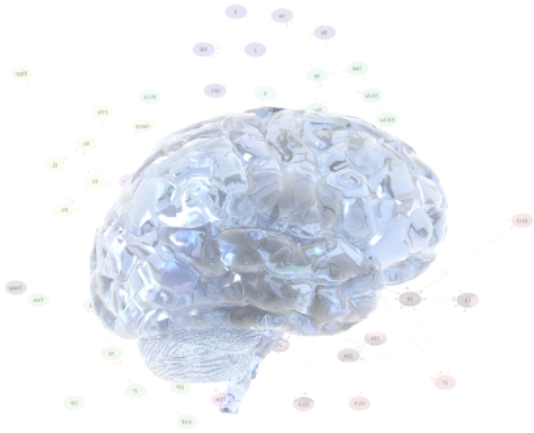


Expert Moral Reasoning Systems

SOURCE: KOHLBERG, (1963,1981)

Kohlberg's Levels of Moral Development

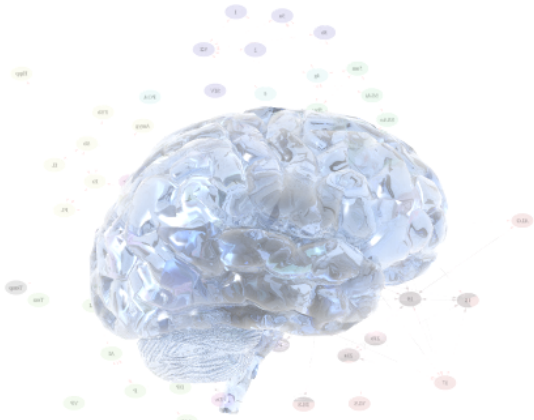
LEVEL	STAGE	CHARACTERISTICS OF STAGE/LEVEL
A Preconventional	Stage 1	PUNISHMENT-OBEDIENCE ORIENTATION
	Stage 2	INSTRUMENTAL RELATIVIST ORIENTATION
B Conventional	Stage 3	INTERPERSONAL CONCORDANCE ORIENTATION
	Stage 4	AUTHORITY AND SOCIAL-ORDER MAINTAINING ORIENTATION
C Postconventional Autonomous, or Principled	Stage 5	SOCIAL-CONTRACT LEGALISTIC ORIENTATION
	Stage 6	UNIVERSAL ETHICAL PRINCIPLE ORIENTATION



Morality PDAs

- Remind us of relevant principles and similar cases
- Behavior-triggered warnings: e.g. email flame filters

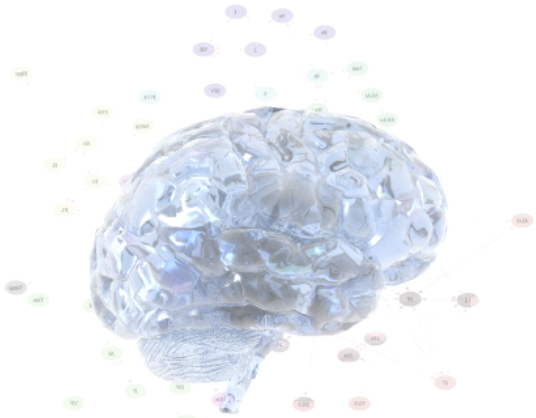




Moral Self-Direction

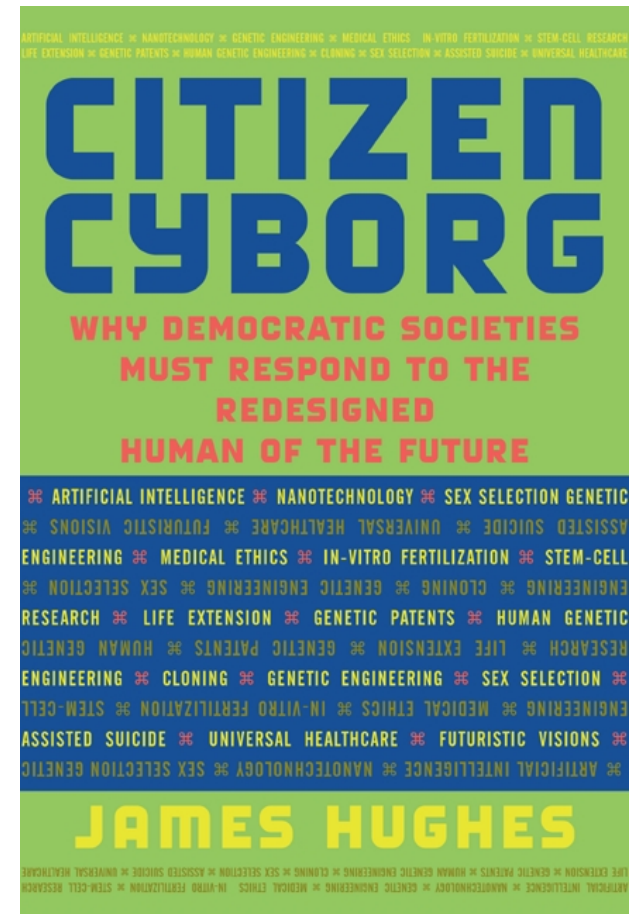
- Having an internal locus of control
- Becoming aware of external influences
- Turning off submission to authority
- Steve Mann's spam filters

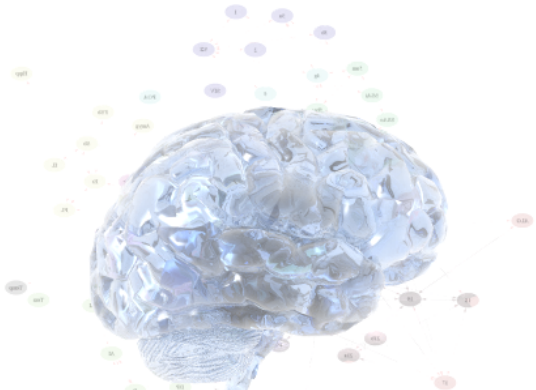




Better Citizens and Persons...

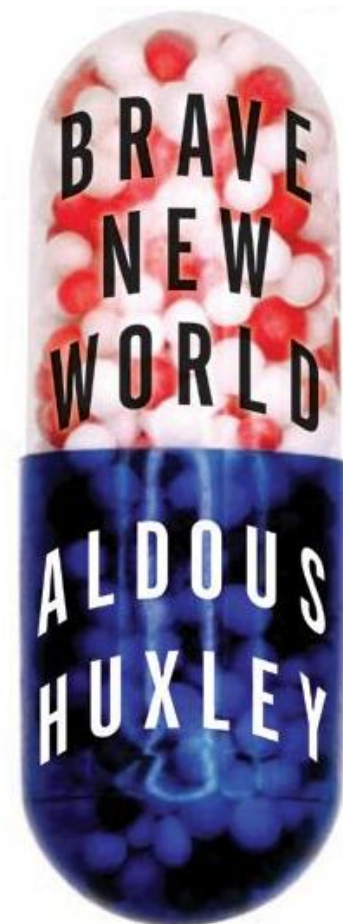
- More happy & intelligent
- More self-aware & independent
- More socially minded
- Better moral & political decision-making

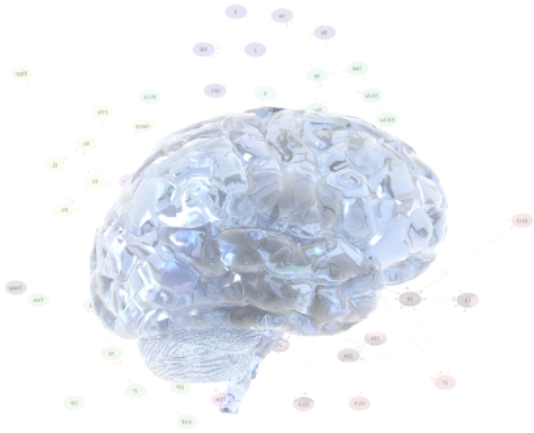




...or Neuro-Authoritarianism?

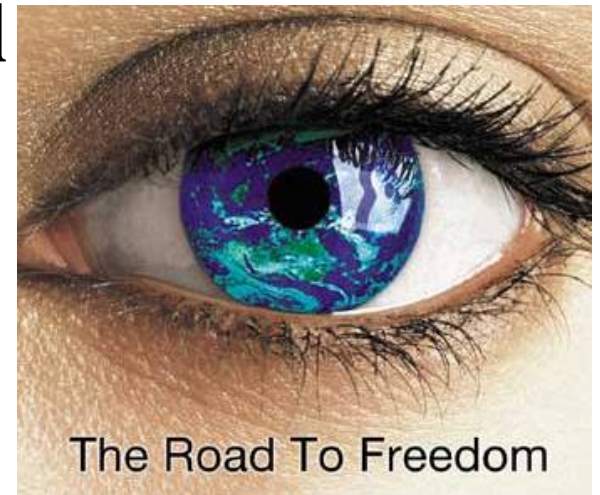
- Brain fingerprinting and e-collars on thoughtcriminals
- Blissed-out citizens
- Amoral workers and soldiers
- Corporate-owned brain operating systems: Microsoft Brain 9.0
- Self-enforced cognitive uniformity:
 - transgenders fix brain or body?
- Enhanced authoritarian China
- Neuro-enforced patriarchy and theocracy



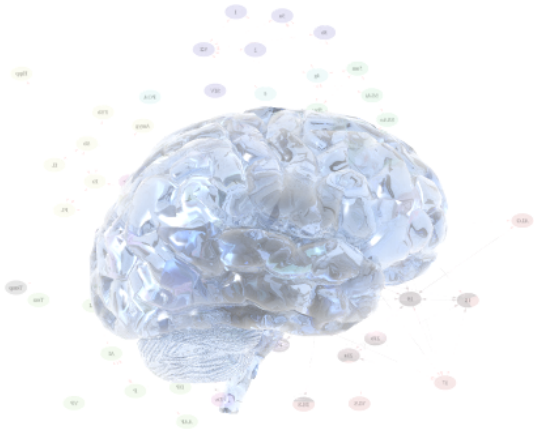


Defense of Basic Rights...

- **Importance of cognitive liberty**
Every person controlling their brain in self-determined ways
- **Defense of liberal and social democracy**
 - Libert  ,   galit  , solidarit  
 - celebration of diversity



The Road To Freedom



A Positive Liberal Model of the Good Personality

- Liberal but still positive normative model of the good life
- Some ways of thinking and feeling should be discouraged and others encouraged

