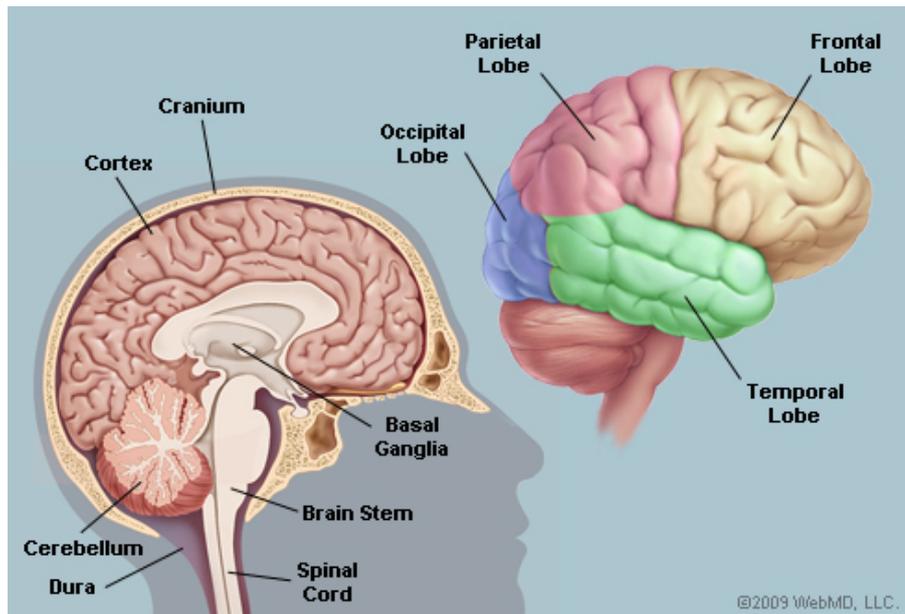


"Thinking Fast and Slow" & "Social: Brains Wired to Connect"

Written by Eric Walberg Эрик Вальберг/ Уолберг □□□□□ □□□□

Monday, 27 January 2014 09:48



Brain research and social psychology have made astounding advances in understanding the mind. These two books will blow yours. The implications for western 'civilization' are profound. Here are some notes.

Daniel Kahneman, *Thinking, Fast and Slow*, Doubleday, 2011.

- heuristic (system 1 rule of thumb) biases -overconfident (first impression), resemblance, ease of memory search, emotion (sympathy for psychopathic charm), halo effect (exaggerate emotional reaction), WYSIATI (what you see is all there is), treating problems in isolation (not integrate variables), framing effects (context, importance of first impression, including page layout etc), priming (thinking about x -> x), endowment effect (owning x appears to increase its value)

- fallacies re human nature -rational, emotions such as fear, affection and hatred explain departures from rationality

- rather systematic errors in thinking due to design of machinery of cognition rather than the corruption of thought by emotion. luck plays large role in success. accurate intuitions of experts better explained by skill and practice incorporated into heuristics. (variant of reason/ faith dialectic)

- system 1** (fast thinking) -automatic operations (associative memory, automatic mental activities (perception and memory), unconscious/ conscious skills incorporated from system 2 as automatic, -> heuristic

- system 2** -controlled operations -both self-control and cognitive effort (allocates attention to effortful mental activities when demanded requiring choice and concentration, can reprogram normally automatic functions of attention and memory)

- also **experiencing** vs **remembering** self (a construct of system 2 but incorporating (fast) associative memories of system 1) -what makes experiencing self happy not same as what satisfies remembering self -need to balance using system 2 slow thinking. -memory both system 1&2 and system 2 can adjust system 1 experiencing/ associative memories (ie, counterintuitive steering out of icy skid)

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-stroll and think (but not engage in mental work that imposes heavy load on short-term system 2 memory)

-need will power/ concentration for system 2, but not always -people exp flow 'state of effortless concentration so deep that they lose their sense of time, of themselves, of their problems' 'optimal experience' p40.

-system 2 energy limited -if more cognitive work, less energy available for self-control (-> 'ego depletion', ie, yield to temptations, make selfish choices, use sexist language, make superficial judgments in social situations) -brain uses up glucose

-children with more self-control show higher IQ

-more on system 1 -generates impressions, inclinations (when endorsed by system 2 -> beliefs, attitudes, intentions ie faith confirmed by reason), automatic// no effort or self-control, can be programmed by system 2 when particular pattern detected, executes skilled responses/ intuitions after adequate training, creates coherent pattern of activated ideas in associative memory (reinforced by illusions of truth, pleasant feelings, reduced vigilance), substitutes easier q for difficult one (heuristics), more sensitive to changes than to states (prospect theory ie, marginal utility Bernoulli 30% raise means more than \$100 raise), responds more to losses than gains (loss aversion)

-regression to norm (good result from partial luck, next result less lucky) when correlation between variables < 1. so if punish for bad results, looks like punishment worked, but not necessarily valid (probably more reasonable to encourage both good and bad attempts, to raise the mean through improved performance generally). can only tell the effect of punishment/ treatment by using control group

-to max predictive accuracy, final decisions should be left to formulas, especially in low-validity environments (admissions to med school to avoid heuristic biases, luck)

-theory-induced blindness -illusion of validity, once you accept theory and use it as tool in your thinking, difficult to notice its flaws (incorporated into system 1)

-experiment in pleasure/ pain -neglect duration combined with peak-end rule causes bias that favors a short period of intense joy over a long period of moderate happiness, fear a short period of intense but tolerable pain to long period of moderate pain -remembering self neglects duration, exaggerates peaks and ends, relies on hindsight -> distorted reflections of our actual experience

-Econ actor based on rationality = logical coherence (no morality, could be unreasonable, antisocial) -no room for heuristic biases. -not good approximation to human thinking. -we are not 'rational' but that does not mean we are irrational. -libertarian model of Econs not good policy basis -humans need protection from others who deliberately exploit their weaknesses, especially the quirks of system 1 and laziness of system 2 (pupil dilation experiments + dominance of (effortless) system 1)

Matthew Lieberman, *Social: Why Our Brains Are Wired to Connect*, Crown, 2013.

-Bentham -man wired to respond to physical pain/pleasure. -rather wired to be social, identities formed by the values lent to us from the groups we call our own.

-some parts of social mind go back to earliest mammals 100m+ yrs ago to ensure survival of helpless offspring. other parts evolved recently and unique to humans and made us dominant species

-**adaptions to connect us to social world** and take adv of these social connections to build

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more cohesive groups

1/ neural overlap between social/ physical pain (-> powerful urge to max social pleasure/ min social pain)

2/ mindreading (reagan 'to mondale 1984 'am not going to exploit, for poli purposes, my opponent's youth and inexperience' 73 vs 56, audience laughter (vs if no audience)

3/ brain center that collates all the inputs and produces 'self' which is malleable and adjusts to harmonize with group

-neural basis for our personal beliefs (consciousness) overlaps with area of brain primarily responsible for allowing other people's beliefs to influence our own.

-we imagine our self is like others' selves -> mindreading/ harmonizing through group beliefs. self is powerful force for social cohesiveness

-**social** reasoning neural systems operate at odds with **nonsocial** reasoning systems. crowd each other out

-default mode network is social cognition (thinking about self, other people, and relation between). -> our interest in social world is programmed (to promote understanding, empathy, cooperation and consideration) -'evolution made a bet on using our social intelligence for the overall success of our species by focusing the brain's free time on it' p20. where real pain possible every time we connect with another human being who has power to withhold love vs less socially painful animal kingdom. this default network clicks in 2 days after birth (not so fast in premature births)

-encephalization (deviation of brain size from body size) -humans 8 vs bottlenose dolphin 5 vs chimp/ monkey/ whale 2, then elephant dog, cat. horse, mouse < 1

-brain 2% of body mass, 20% energy. in prenatal, 60%. brain bigger for smarts, imitation, social learning, but more for social harmony in larger groups 150 (village and army unit size) to allow processing of complex relations

-Maslow's pyramid from physiological -> self-actualization. no as social is at base beside physiological. -our attachment system last a lifetime, so pain of social rejection never goes away a la hunger

-reciprocal devotion of infant/ caregiver, give and take both activate dopamine (as does relief from physical pain).

-South African Bantu philosophy -balance of inner self with social being in other (embrace other, not enemy - the essence of human psychology vs animal world).

-from 12-16 in US -> Korea 10% bullied on regular basis (40% sometimes) -85% nonphysical -> 7x more likely depression, 6x more likely suicide by age 25. same as sufferers of chronic pain.(implications for jews/ gays -why did they 'evolve' to be bullied?)

-prisoner's dilemma - 5/5, 10/0, 1/1 (defect) -cooperate 1/3 of time anonymously, almost 2/3 if you know player B is cooperating. ie, interested in welfare of others, more sensitive to total earned by both players than to one's personal outcome.

-Hume: man has no other end, in all his actions, than his private self-interest. Hobbes: seek what is good for himself naturally, and what is just accidentally p83. (**+Bentham = Enlightenment**)

-prefrontal cortex -inhibit desires (Kahneman's controlled thinking), ventral striatum -reward system.

-altruism -reward system sensitive to welfare of others, more pleasure from giving (oxytocin, for bonding esp in mothers) than receiving (opioid-based pleasure processes in brain).

-crying infant painful to mother, caring intrinsically rewarding. lifetime process. separation ->

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depression

-see others as minds guiding behavior (body/mind separation hardwired -see below)

-daffy duck 'i know that you know that i know' with bugs bunny + sally-anne task (basket, box, anne moves marble to box while sally away, where should sally look for marble when she returns?) 3 yr-olds poor, 5 yr-olds can do it. -have developed 'theory of the mind' p111. ie can **mentalize**

reactions of others in advance. (mentalizing can involve nonsocial (logical) thinking or rely on heuristic shortcut ('he thinks like me/ everyone'))

-nonsocial thinking deductive/ inductive. -social and nonsocial systems different neural systems

-more socially adept -salesperson effect, bluffing

-thinking lazy -use heuristic shortcuts wherever possible (see Kahneman fallacies such as in-group favoritism, overconfidence, naive realism)

-mentalizing vs **mirror** neuron systems -monkey responds both when picks up peanut and when sees human picking up peanut. ie, perceptual-motor overlap in brain. ie, -> imitation (important for language, culture, mindreading, empathy). but high-level mindreading, mastering grammar require more than imitation. we can only make sense of the millions of sensations bombarding us by heuristically mentalizing. primates have mirror system (the 'what') but only humans have advanced mentalizing system (why).

-empathy the peak of social brain, requires understanding inner emotional world of other and then acting to benefit other and our relationship with him. activates septal region, central to maternal caregiving, to get involved in lives of others in positive ways.

-autistic (lack of social skills) - either like deaf, not getting stimulation (broken mirror system), or getting too much (schizo) and withdrawing

-self-aware in mirror is mirror system (chimps, dolphins, elephants) -located in right hemisphere frontal lobe. -can recognize own body.

-self-knowledge (adjective more applicable to self or bush) in another part MPFC (medial prefrontal cortex) and precuneus--on midline of brain ('third eye'). -can recognize own mind.

-only close primates (monkeys and great apes) have this BA10 region. -in humans, 2x larger than in chimps. -BA10 has less neurons so can connect to great number of neurons elsewhere.

-'self' is sneaky ploy that allows the social world in (family, peers, society) and allows us to be shaped by social world without our even noticing. p190. -> 'socially derived impulses'.

Neitzsche: what people do is done for the phantom of their ego which has formed itself in the heads of those around them and has been communicated to them. [Rousseau -live thru others' opinion of ourselves]

-we are bombarded by feedback from others (words, nonverbal, tone of voice). -adolescents use more mentalizing system when making direct appraisals of themselves (ie, more influenced by what others think). 1/ -we appraise ourselves through others' opinions. but 2/ furthermore, others' opinions change our beliefs. ie conformity/ harmonizing

-Alain de Botton: living for others is such a relief from the impossible task of trying to satisfy oneself. Einstein: only a life lived for others is a life worth while.

-self-control center rVLPFC ventrolateral prefrontal cortex -motor, cognitive self-control (ie loss aversion), perspective-taking (false consensus effect). -more accurate predictor of actions than conscious MPFC intentions.

-must retune our institutions/ goals to be smarter, happier, more productive socially.

-'greatest happiness principle' but what is happiness? not income but distribution (per capita income 2.5x 1946--89 but no increase in well-being. p244. , social capital and relational goods

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(married, friends, social network, social orgs, charity, trust in institutions), health (which in turn depends on sense of well-being -vicious circle). [also religion which Lieberman ignores)
-today decline in social capital. 1965 45% freshmen listed 'very well-off financially' as top life goal. 'helping others/ raising family scored higher. 1989, being well-off 75%.
-need Council of Social Advisors, goal to increase social well-being.
-even facebook and pictures/ remembering (social snacking, surrogates) improves well-being
-David Rock at Neuroleadership Institute advocates SCARF (**status**, certainty, autonomy, **relat edness**

fairness

). -leadership needs social skills more than expertise (same dilemma with revolutionary vs post-rev leaders). Adam Grant

Give and Take

-doing something meaningful means helping others.
-intelligence and empathy both necessary in leadership but are negatively correlated, a la nonsocial/ social brain systems - complementary, like two ends of seesaw, conflict with each other. -most effective leaders bounce back and forth between the two systems.
-gr6-7 -need to encourage sense of belonging, curb bullying. -peak of emotionality but still no self-control. -feeling good improves thinking - both depend on dopamine. -bad social atmosphere at school/ work reduces productivity -better atmosphere/ leadership more important than higher salary. -must try to mobilize mentalizing/ social thinking (gr8 tutor gr 6 for math 'learning-for-teaching' esp for low achievers, encourage students to make sense of info socially vs intentionally memorizing ie, 'social encoding advantage') -teaching method to use both social/ nonsocial brain systems, alternating. -history must teach the why (vs only the what and how). -English must encourage writing to get ideas from your mind into the minds of others so that they understand/ are persuaded, informed, moved (also the why -how to communicate to convince, vs just grammar, parsing, memorizing)
-neurons can develop in adulthood thru exercise. simple motor self-control training works for all types of self-control
-most pleasures except drugs depend on our ability to imagine the experiences of others

-in meditation/ prayer - increased activity in the frontal lobe as meditators began focusing their minds. There was also a decrease of activity in the parietal lobe, seemingly indicating that the nuns lost their (spacial) sense of self in relation to the real world and were able to achieve communion with God. The Pentecostals actually experienced a decrease in frontal lobe activity; instead of focusing their attention as the nuns and monks did, they paid less attention to the task at hand [source: Carey]. Even though they spoke in tongues, the language center of the brain wasn't activated [source: Paulson]. This brain activity is fairly consistent with descriptions of what speaking in tongues is like -- you lose control of yourself as a person, and God speaks through you. 'God Helmet' includes electrodes that Persinger uses to alter the electromagnetic field at the temporal lobes. -can create a religious experience for anyone by disrupting the brain with regular electric pulses. This will cause the left temporal lobe to explain the activity in the right side of the brain as a sensed presence.