
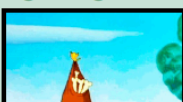





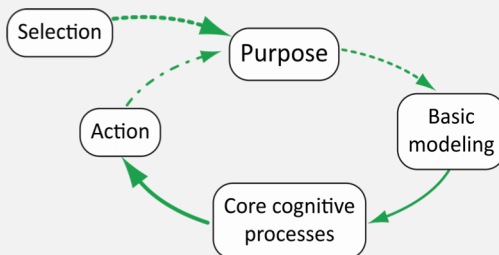
Cognition, Squeezed Between Real and Values

Cognition (via modeling)

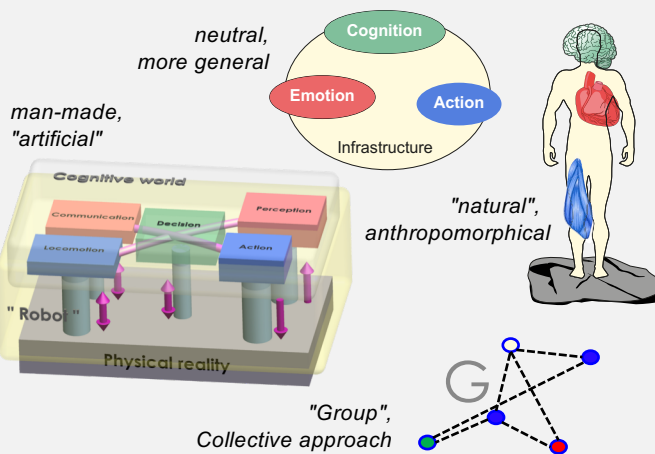
Action for survival and changing the world	Cognition (per se) for planning and steering action	Emotion for synchronization with reality* for setting goals and launching action**
"Muscle", physical engine	"Brain", cognitive engine	"Heart", Indicator of values at stake (threats and opportunities)
Physical, real world. Laws of nature; true 	Cognitive, imaginary world. Laws of logic; right, beautiful 	Mixed mode, ("meta-logic"), values, emotional domain; Laws of value ; good 

* immersed part of iceberg (unconscious)
** visible part of iceberg; re. etymology of emotion

For **cognition**, it all starts from the selection of appropriate goals (i.e. values and **emotion**), in synchrony with the real i.e. **nature**)



Examples of smart **cognitive systems**, operational in real world



Cognition in the context of action (re. **nature**) and emotion (re. **values**) – Some typical aspects for humans and societies, agents and groups

Action	Cognition	Emotion
support operations, logistics	follows & optimizes rules, guidelines, standards; computes; evolution; syntax	changes rules and paradigms; irrationality, deception; changes price, gives and takes; revolution; peace or war
Motor and brake operation for a car	cruise control (re. gear, throttle targets)	control setting and braking control; starts-stops
force, energy; fight or flee; control power	imagination, if-worlds, modeling, prediction	internal monitoring, communication, wisdom, consciousness, empathy, solidarity, dignity, mercy
shepherd's dog, donkey	shepherd, shepherdess	lamb, flock of sheep, Romulus's & Remus's lupa
executive power (Caesar, MT)	Legislative power, science	people initiatives, fashion, strikes, mobs
clock; smoke detector, valves	ringing start; monitoring and alarm	setting the wake-up time; switching and settings
pleasure and pain	happiness and suffering	individual: stoicism, epicureanism, hedonism etc. ; collective: egoism, altruism, masochism, sadism etc.
lion, bear, bull	think tank, re. Martians in "Mars attacks"	flock of birds; "federative" imperial dragon (camel head, eagle claws, snake body etc.)
technology, engineering	philosophy, "analytic" philosophy	religion, "continental" philosophy
work, operation;	rational thinking, meditation, function, administration;	strategy, dreams and nightmares, art (value-laden, symbolic communication), relaxation, mindfulness; perceive and say
explore and do	Think, deliberate	
Mars; permanence; constancy, determination, time	Mercury; history and planning; information, communication, cognitive assistant - advisor	Venus; change; synchronicity with circumstances and instant values, speed
soldier, police, fire squad, farmer, entrepreneur, sports - individual	school, research institute, science, admin., games of strategy (logic), chess, media	ambassador, mediator, court system, social services, insurance, banking, sports - team
mechanism, material	procedure/process/program	good or service

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