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**From:** jeffrey E. <jeevacation@gmail.com>  
**Sent:** Wednesday, May 9, 2018 1:56 AM  
**To:** Joscha Bach  
**Subject:** Re:

now.? or read trivers on genetic conflict  
<=div>

On Tue, May 8, 2018 at 11:44 AM Joscha Bach [REDACTED] wrote:

There is probabl= an evolutionary algorithm that describes the competition of the neural wi=ings during the formation of our brains, i.e. in the development of every =ndividual. Not sure if there is an equivalent of to male/female sexual sel=ction, and what it would look like!

=div>On May 8, 2018, at 8:33 AM, jeffrey E. <jeevacation@gmail.com <mailto:jeevacation@gmail.com>> wrote:  
<=r class="m\_-4945126078866447802Apple-interchange-newline">  
trivers genetic competition . male female genes. in the =adult

On Tue, May=8, 2018 at 2:52 AM Joscha Bach [REDACTED]  
[REDACTED] wrote:

I am still trying to understand your question.

</=iv>  
- What do you mean by genetic conflict in a single individual?  
- What do you mean by machine state?

Perhaps= you refer to a cybernetic regulation paradigm? Valentino Braitenberg sugg=sted to understand AI from a regulation perspective: feedback loops to app=oach a target state (homeostatic equilibrium). The behavior regulation can=be described with payoffs across many sub-behaviors (which Minsky called a=ents and agencies). Whenever you get a situation where the local cost func=ions lead to a Nash equilibrium that is incompatible with the global goals=of the organism, you introduce a higher level regulation that imposes off=ts on the payoff matrices of the lower level agents. This leads to the for=ation of an internal governance hierarchy.

I think that this was=the core idea of Rodney Brooks' subsumption architecture. (Eventua=ly, Brooks' work did not pan out, he started building Roombas and =awn movers and became an AI pessimist.)

On May 7, 2018, at 9:17 PM, jeffrey E. <jeevacation@gmail.com</=>> wrote:

my question relate to the=metaphor of genetic conflict in a single indiv , is there an =equivalent . machine internal competition

On Mon, May 7, 2018 at 8:06 PM Joscha Bach [REDACTED] wrote:

I think that the whole game=is internal. All our pleasure and pain are caused by satisfying or frustra=ing our needs, which are (roughly speaking) implemented in our reptilian b=ain. Our neocortex is modeling these needs as purposes, so we can regulate=our behavior for satisfying our needs.

For example, the=physical pain, and hunger and thirst exist on the level of needs, and surv=val is a purpose, a kind of modeling abstraction, as are food and drink.</=iv>

Many of our purposes are outside of the organism, such as relation=hip purposes, and social purposes. Even our aesthetic purposes (like Jeffr=y enjoying an intellectual standoff between Bannon and Summers) are not re=llly related to the organism.

While the needs are =somewhat hardcoded, our reaction to them is not (we can modulate pain and p=asure experiences, we can route our regulation around satisfying our need=, and we can repurpose our needs for competence, dominance, affiliation, a=d aesthetics for almost arbitrary goals. By changing the regulation goals =which is always internal to our mind) we change the payoff matrix.

On May 7, 2018, at 8:43 AM, jeffrey E. <jeevacation@gmail.com> w=ote:

i posit that thre is an internal game with its own payoff ma=rix , separate from the external . is =here a machine internal state equivalent.

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