

*Extended Abstract*

## **Let's interPlay! Does co-evolution enable or constrain?**

**Evo Busseniers<sup>1,\*</sup>**

1 Global Brain Institute, VUB;

E-Mail: [evo\\_busseniers@hotmail.com](mailto:evo_busseniers@hotmail.com)

\* Author to whom correspondence should be addressed;

*Accepted: March 3 2015*

---

The standard model of evolution assumes a fixed fitness landscape. Usually there is co-evolution, though: besides being influenced by its environment, an agent also shapes its environment (as described by niche construction (Laland, Odling-Smee, & Feldman, 2001)). View this as a swamp-like fitness landscape that changes as an agent moves through it and acts in it.

This interplay is described on different similar aspects: between 'natural and cultural', 'social and infrastructure', 'function and structure', 'society and technology', 'decisions and acts', 'theory and practice' and 'micro and macro'. This mechanism can be used to explain certain dynamics. In the next paragraphs I will do so for technology and democracy. In general, out of the interactions of local elements, there is a bigger structure that emerges. This structure could then impose itself onto the agents, so that a status quo is reached: agents are influenced by the structure, while they don't have any more influence in return (Stirner, 1995, Stewart, 2014).

Technology is in interaction with a certain kind of society and ideas. Technology strengthens a certain type of society, while it is also out of current ideas that a technology is created. Technology creates the circumstances, the environment, in which one can act. We can find support in technology to liberate ourselves. But technology can never liberate in itself, because you can only liberate yourself. Technology can't save us, because then we aren't the drivers, the players, of our own future. Technology can reinforce certain liberating tendencies, but if these tendencies aren't present, even the most liberating technology will evolve to serve the current system.

Today's democracy creates a sharp separation between decision making and acting. Some politicians make the decisions, which other people put into practice. This makes it possible to avoid responsibility, and creates alienation. Dreams can't evolve into acts.

Distributed governance is a step in the right direction. But often there is the assumption that we should make a global decision, and then all act by that decision, for example in (Banathy, 2000). Although these decisions and acts have come about in a distributed way, there is still a separation between them. A global decision is made out of local decisions, which lead to local acts bringing forth a global act. Another practice is where local decisions lead to local acts, out of which a global behavior, a global direction, emerges.

A solution to this structure that imposes itself could be a more hybrid structure, one that is constantly evolving, a variation and selection of different ways of organizing (Veitas & Weinbaum, 2014). There is not one utility measure that imposes a hierarchical ordering (Roughgarden, 2013). Instead of trying to reach a global, united decision or view, there would be local groups or individuals who develop themselves and work together to do so. It would be diverse and even contradictory. This conflict will boost a dynamic play.

Only a constant opposition can work, though, against the natural tendency of a system for unification, for getting stuck in a status quo. This mechanism is analogous to the second law of thermodynamics, which states that without selection, a system will become more and more disordered. Without opposition, a system will impose itself and become rigid. But this doesn't mean that a complex or anti-authoritarian society is impossible.

The idea is to create the environment that helps people to develop and enables them. But they are two different perspectives to do this (Busseniers, 2014): to start from yourself, constructing the world you would like to live in, or to start from the other, constructing a world where an assumed better behavior is more easily achieved. This last perspective is that of libertarian paternalism (Heylighen, 2009).

These considerations are important to take into account when thinking about the global brain. Will the global brain be this integrating structure, a stable attractor state, impossible to resist since it is omnipotent and omnipresent (Heylighen, 2014)? Or will it be a constantly evolving structure that enables us to build the world we want? Will it alienate our decisions from our acts? People could get stuck in a virtual world where they can raise all kinds of opinions, but without these being connected to their acts and everyday lives. But the internet could also enable people to put their ideas into practice, by providing tools, resources and people. Consider for example the scientific process. Right now, a researcher develops a plan for an experiment, performs an experiment and writes down the results in an article, and only then his ideas are peer-reviewed. At that stage, they might find out that actually there are some problems with the experimental setup. A more continuous peer-review could be interesting, where every step gets peer-reviewed. The global brain could enable this.

## References

1. Banathy, B. H. (2000). *Guided evolution of society: A systems view*. Kluwer Academic/Plenum Publishers New York.
2. Busseniers E. (2014): [Is external control important for internal control?](#) (GBI Working paper)
3. Heylighen, F. (2009). [Stimuleren van geluk en sociale vooruitgang: een libertair paternalistische benadering](#). *Ethiek en Maatschappij*, 12(1), 147–167.
4. Heylighen, F. (2014). [Return to Eden? Promises and Perils on the Road to a Global Superintelligence](#). *The End of the Beginning: Life, Society and Economy on the Brink of the Singularity*.
5. Laland, K. N., Odling-Smee, J., & Feldman, M. W. (2001). Cultural niche construction and human evolution. *Journal of Evolutionary Biology*, 14(1), 22–33. doi:10.1046/j.1420-9101.2001.00262.x
6. Roughgarden, J. (2013). *Evolution's rainbow: Diversity, gender, and sexuality in nature and people*. Univ of California Press.
7. Stewart, J. E. (2014). The direction of evolution: The rise of cooperative organization. *Biosystems*, 123, 27–36. doi:10.1016/j.biosystems.2014.05.006
8. Stirner, M. (1995). *Stirner: The Ego and Its Own*. Cambridge University Press.
9. Veitas, V., & Weinbaum, D. (2014). [A World of Views: A World of Interacting Post-human Intelligences](#). *arXiv preprint arXiv:1410.6915*.