

Reflection on the homeostat and a possible project thereof

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Comment: A sketch for a paper (first of a series?, chapter of book?) on the homeostat, cyborgs, cyber-subjectivity, etcetera.

1 Preliminaries

The issue is the following. In an interesting piece, Di Paolo (2003) notices that the trend toward embedded and situated cognition (and, hence, robotics and nouvelle AI) in cognitive science has not gone far enough, because it still lack a notion of agency motivated by desires (needs). Desire which, in turns, are generated by—rather, are equivalent to—some physical need of the organism itself. The reintroduction of the notion of agency goes hand in hand with (a rather classical) notion of subjectivity that he want to reintroduce as well. He notices how the inspiration for this work comes (once again, vide Dreyfus) from Continental philosophy, and particularly from the work of Hans Jonas (*The Phenomenon of Life*), Merleau-Ponty, etc. It is in this context that he introduces his own experiments in evolutionary robotics, which are based and strongly inspired by Ashby's homeostat. In other words: the architecture of the homeostat (or at least, the principles behind that architecture) are used by Di Paolo in order to introduce into cognitive science a classical notion of subjectivity based on physiological needs. The Ashbian concept of ultrastability (which the homeostat embodies) becomes the key to a physically (in a very, very strong sense of physics) grounded notion of agency. Di Paolo, who is not a philosopher nor wants to be one, assumes or rather presupposes that this notion of agency is rather intuitive (he mostly refer to Jonas for the details, see also his review of Jonas's book) and largely uncontroversial.

I am not convinced of the latter point. Or rather, I am not convinced that a homeostatic ultra-stable subjectivity in the Ashbian vein is that close to a classical, more or less Cartesian view of

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subjectivity. In fact, I am not even convinced that Ashby's own interpretation of the homeostat is that adequate, in the sense that he stresses the homeostat's closure to the world, the system being autonomous from the world insofar as it is always free (within preestablished boundaries) to rearrange itself and achieve stability. But it seems to me that the homeostat (the *same* homeostat) is passible of a different reading in which the essential opening to the world is stressed instead, the system being able to incorporate as much of it as possible in order to survive.

These may seem secondary interpretive matters. They are not. The reason becomes clear if we link cybernetics to its other cyber—cyber-theory. In other words: how much is the post-structuralist (and post-everything) theory of the subject that we find in authors like Haraway, Braidotti, Stengers, a more accurate rendition of the original cyborg, i.e. the homeostat? And, indeed, how much is “my” theory of subjectivity as passivity compatible with the homeostat?

This, in a nutshell, is the question: use the homeostat to think the cyborg, use the cyborg to think the homeostat.

The problem, though, is: how do I do that?