



DELEUZE AND BIOSEMIOTICS

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Deleuze and Biosemiotics

- “Subject” and “Process” equivalent terms in Deleuze
- Subjectivity is “larval” – emergent property of habitual (repeated) material activity.
- Emphasis on “non-organic” becoming lacks a sufficient support.
- Biosemiotics provides viable intervention
- “[*Semiotic*] emergence implies that while there is no centralized director...the organism or person...is continuously regenerated...*The person is not a stable being but rather a constant becoming*” (Hoffmeyer 2008, 28).

Deleuze and Biosemiotics

- “The idea that there is such a thing as molecular perception has been accepted for a long time. When ethologists define worlds of animals, [they show] that an animal responds to a certain number of stimuli, sometimes very few, that amount to little glimmers in the dark depths of nature” (Deleuze 1994, 158).
- “That there are molecular perceptions no less than molecular reactions can be seen in the economy of the cell and the property of regulatory agents to ‘recognize’ only one or two kinds of chemicals in a very diverse milieu of exteriority” (Deleuze 1994, 51).

Dual causality (Logic of Sense)

- Double cause
 - 1. *“Actual” (physical) cause – “intra-molecular modifications”*
 - Conjunction/disjunction of atoms
 - 2. *“Quasi” (ideational) cause – surface effect*
 - Recursive, maintains immanent relation with physical cause
 - Product becomes productive.
- Sense as membrane regulating formation/reformation.

Dual Cause cont'd

- Singularities
 - *1. description of dynamic systems*
 - *2. self-organization*
 - *3. membrane (boundary and participant)*
- Two levels/moments
- Singularities are “metastable”
- “auto-unification”
- Relation to dynamic systems

Singularities cont'd

- Emphasis on internal dynamics and virtual connections
- System plays toward the biological
- Foreshadows theories of autopoiesis, embodied cognition.
- Emergent event must “realize itself.”
- Varela et al. (2016): “[Cognition] is not the representation of a pregiven world by a pregiven mind but is rather the enactment of a world and a mind on the basis of a history of the variety of actions that a being in the world performs” (9).
- Maturana and Varela: “effective action”
- Non-conscious cognitive processes

Double Articulation (*A Thousand Plateaus*)

- “[There] is no vital matter specific to the organic stratum, matter is the same on all strata. But the organic stratum does have a specific unity of composition, a single abstract Animal, a single machine embedded in the stratum, and presents everywhere the same molecular materials, the same elements or anatomical components of organs, the same formal connections” (Deleuze and Guattari 1987, 45-6).
- Distinction between substance and form reveals “double articulation” of emergent systems:
 - 1. *level of content (molecular interaction)*
 - 2. *level of expression (emergent unity)*

Double Articulation cont'd

- Expression as boundary condition/membrane
- “The limit between [interior and exterior] is the membrane that regulates the exchanges and transformations in organization...and that defines all of the stratum formal relations or traits” (DG 1987, 50)
- “An assemblage of enunciation does not speak ‘of’ things; it speaks *on the same level as states of things and states of content*” (87, emphasis original).
- Semiosis of emergence: Organisms ‘territorialize’ (mark a domain of significance) their world. Expression a continual modification of system of interactions within an external milieu.
- Cognition as “effective action”

Double articulation cont'd

- Expression molecular and molar.
- DG rely on organic emergence to make their case.
- “Expression involves nucleotides and nucleic acids as well as molecules that, in their substance and form, are entirely independent not only of molecules of content but of any directed action in the exterior milieu” (DG 1987, 59)

Deleuze and Biosemiotics

- Dual cause/double articulation present construction of associated milieu contingent upon molecular activity/interaction.
- Hoffmeyer (2015) 'semiotic scaffolding': "since genes cannot influence anything in this world except through cellular activity it follows that cells must somehow 'comprehend', 'interpret' or 'understand' these 'instructions', and this effectively brings us from the 'secure' world of traditional efficient causality into the much more open world of semiotic causality" (160).
- The "construction of sophisticated senso-motoric systems coupled to a corresponding finely tuned regulation of a *milieu interior* [could] safeguard the stability necessary for reliable performance" (167-68).

Deleuze and Biosemiotics

- Deleuze and Guattari: “Perceptions and actions in an associated milieu, even those on the molecular level, construct and produce *territorial signs* (indexes). This is especially true of an animal world, which is constituted, marked off by signs that divide it into zones (of shelter, hunting, neutrality, etc.), mobilize special organs, and correspond to fragments of code” (1987, 55 emphasis original)
- Hoffmeyer and Stjernfelt: “Perception, understood as the process of creating internal models of events or things in the surroundings, is a high-level activity based on the integration of hundreds, thousands, or in some cases, even millions of semiotic interactions in the body and between the body and its environment and facilitates, in higher organisms, comprehensive mental maps of relevant aspects of organism surroundings” (2015, 9).
- Hoffmeyer: Apparent equivalence between perception and action.

Deleuze and Biosemiotics

- Double causality and double articulation illustrate the link to biological systems theory and biosemiotics.
- Biosemiotics and ST provide means of ascertaining a consistent notion of subjectivity in Deleuze's work.
- Biosemiotic theory, mobilized as a means to both account for and broaden our understanding of the surplus of signification that opens as a result of a system's autopoietic organization, explains distributed, embodied cognition without abandoning a notion of the subject. Reading Deleuze both autopoietically and biosemiotically allows us to highlight his biological insights and identify a consistent, distributed subjectivity that develops throughout his work.

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