

The Notion of Ecology of Action in the Context of Social Constructivism

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COMPLEXITY OF MANAGEMENT IN THE COMPLEX WORLD


**Construction
of reality**

Enactivism

Complexity

**Extended
ecological
approach**

OVERLOOK

- 1) **Social constructivism**
- 2) **Non-linearity and complexity**
- 3) **Instability due to complexity**  **dynamical stability on the basis of diversity of elements**
- 4) **Complexity of management: ecology of action**
- 5) **An extended ecological approach**
- 6) **Some consequences for risk management**
- 7) **From complex thinking to complex ethics**

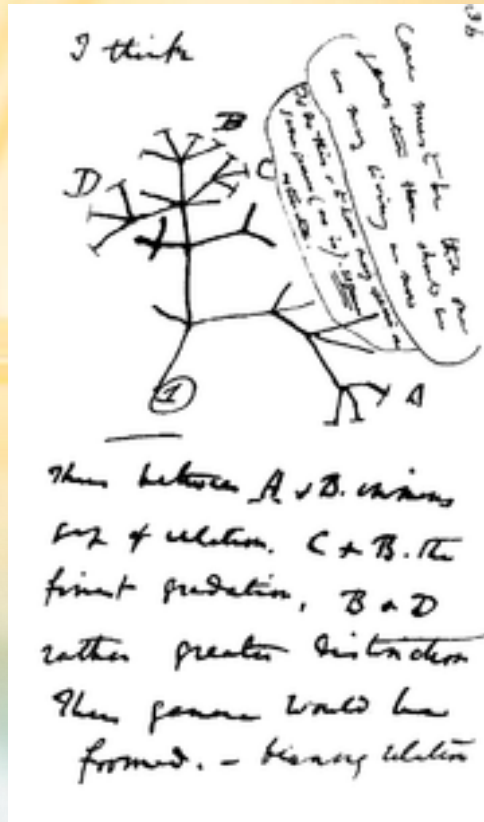
1) SOCIAL CONSTRUCTIVISM

- Social institutions (Émile Durkheim).
- „*Der sinnhafte Aufbau der sozialen Welt*“, 1932. Phenomenological sociology (Alfred Schütz)
- „*How to Do Things with Words*“, 1955, John Langshaw Austin
- „*Social Construction of Reality*“, 1966 (Peter L. Berger and Thomas Luckmann)

2) NON-LINEARITY

- **irreversibility (arrow of time)**
- **points of bifurcations**
- **change of tempo (regime) of evolution**
- **small deviations, fluctuations, chances**
- **thresholds of sensitivity**
- **dead ends of evolution (stages of involution)**
- **influence of the future**
- **nested evolution**

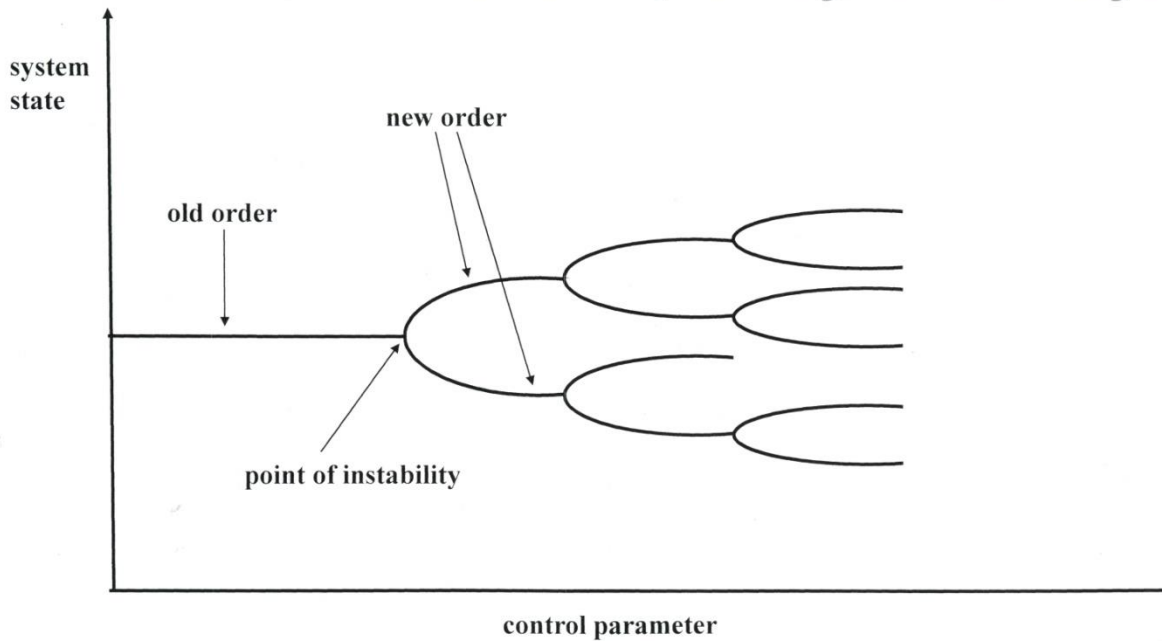
NONLINEARITY



Drawing from Darwin's manuscript

NON-LINEARITY

Emergence of Novelities: Phase Transitions of Complex Dynamical Systems



NON-LINEARITY AS SWITCHING OF DIFFERENT EVOLUTIONARY REGIMES



Theory of complexity as a theory of non-stationary dissipative structures that develop in **blow-up regimes**

*Sergei P. Kurdyumov
(1928 – 2004)*

NON-LINEARITY OF COMPETITION OF MODES OF EVOLUTION



Main concepts of synergetics:

- **Parameters of order**
- **Slaving principle**
- **Circular causality**

Hermann Haken

COMPLEXITY OF SYSTEMS

- **Their functions are much more complex than they are**
- **Number of elements and complexity of relations**
- **Variety of elements**
- **Multilevel structure**
- **Openness**
- **Emergent properties**
- **Memory, hysteresis**
- **Loops of feedback**

EDGAR MORIN ON COMPLEXITY

“For me, complexity is a challenge, not an answer”. E. Morin

**“*La complexité est un défi* que nous rencontrons dans la vie ... Elle a pour but de relier ce qui, dans notre perception habituelle, ne l'*est pas*.”
E.Morin**

“The more complex a system is, the more it carries in itself disorder which becomes an inalienable part of an organized order which becomes the more and more sophisticated and at the same time reginal and fragile”. E. Morin

3) COMPLEXITY - INSTABILITY

- **The more complex a system is, the more unstable it is.**
- **Stability through instability. A system exercises in its instability. = Creative destruction.**
- **Two types of instability**

4) EDGAR MORIN'S ECOLOGY OF ACTION

“We cannot be sure that the result of action will correspond to our intentions, on the contrary, we can seriously have doubt about it”.

Edgar Morin.



COMPLEXITY OF MANAGEMENT

E. Morin idea of “ecology of action”:

- Each action contains a moment of uncertainty
- The connection of activity and its result (producer and produced)
- Each should be corrected in the process of action (self-guidance, homing guidance). ---- Strategy of action


5) AN EXTENDED ECOLOGICAL APPROACH

- In the narrow and traditional sense, ecology studies the problems of co-evolution of nature and mankind, of preserving natural diversity on our planet, and of protection of wildlife.
- In the broader sense of the word, one can speak about - - -,
 - ecology of human mind and ideas;
 - ecology of cognition and creativity;
 - ecology of thought, speech and communication,
 - ecology of human action and management.

UMWELT ANALYSIS (JAKOB VON UEXKÜLL AND ENACTIVISM (FRANCISCO VARELA)

- **The connection of the living organism and the environment.**
In Uexküll's study, it is a functional circle.
In enactivism, it is a structural coupling.
- **Extraction of meanings**, which is associated with the selective activity of living organisms.
- The role of the **body and bodily-motor activity** for cognition. The body of a living organism is an instrument of cognition.

7) FROM COMPLEX THINKING TO COMPLEX ETHICS

- *L'Unité de l'Homme* (1974) 
- Foundation of an international institution which aims to reform management and governance on the principles of solidarity and responsibility:
 - Ethics of tolerance
 - Ethics of freedom
 - Ethics of belief in friendship
 - Ethics of love
 - Ethics of common planetary destiny

L'Unité de l'homme. Paris: Seuil, 1974 (en collaboration avec Massimo Piattelli-Parmarini). (nouvelle édition coll. «Points», 3 vol., 1978).

ENGINEERING OF COMPLEXITY

The application of complex thinking should be complex.

“Travailler pour bien penser!”

“To work well in order to think well”.

Blaise Pascal.

NEW ETHICS

“Cognition that connects is the way of cognition of the complex world we live in.

Thinking that connects becomes a basis for ethics of connection, complicity, participation, and solidarity.

Politics that connects is politics knowing that solidarity is vitally important for development of complex social integral entities”

(Morin, 1994).

MY SITES AND EMAIL

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THANK YOU!

