Levels of semiosis: Three kinds of kinds

Hugo F. Alrøe
Gatherings in Biosemiotics 2015
Outline

Natural kinds and other kinds of kinds
Three (semiotic) kinds of kinds
Other approaches to semiotic levels
Second-order semiosis: Three semiotic levels
Substantiation: Evolutionary acceleration
Implications for the ‘kinds of kinds’ discussion
Conclusion
A long tradition in philosophy for talking about natural kinds

Ian Hacking (1986-1995, influential):

[ Natural kinds ] Human kinds
(looping effects)

Ian Hacking (1999):

Indifferent kinds Interactive kinds

Kinds of kinds
Critiques

R. Cooper (2004):

[ Natural kinds    [ Human kinds ]    ]
(l o o p i n g    e f f e c t s )

M.A. Khalidi (2010):

Indifferent kinds   |   Interactive kinds
(natural and human)

Kinds of kinds - 2
Intuitions

Not two, but three kinds of kinds:

Indifferent | Adaptive | Reflexive

The basis for adaptive and reflexive kinds must be semiotic

Reflexive kinds are based on second-order semiosis

Semiotic kinds of kinds
Eco

semitic threshold: non-semiotic | semiotic
nature | culture

Sebeok – life is semiosis (biosemiotics)
Deacon – the symbolic species
Kull

Iconic | Indexical | Symbolic
Vegetative | Animal | Cultural

Semiotic thresholds
Stjernfelt – the abstract animal symbols in general | hypostatic abstraction
animal | man

Peirce – the whole universe consists of signs

Sebeok -> Nöth
Proto-semiosis | Semiosis
Non-organic world | Organic world (Life)

Semiotic thresholds - 2
(0) non- or protosemiotic processes
  • without representation
  • zeroth-order semiosis
  • physical or causal processes

(1) semiotic processes
  • with representation as the key form of relation
  • first-order semiosis
  • processes of life and cognition

(2) second-order semiotic processes
  • with representation of representation
  • second-order semiosis
  • self-conscious and self-reflexive communicative processes

Second-order semiosis
Two major evolutionary explosions:

Life and human culture =
new ontological levels of complexity

Secondary explosions:

are due to a ‘social’ or ‘systems’ evolution based on the available type of relations

A careful prediction:

Second-order semiosis is necessary to foster genuine artificial intelligence

Evolutionary acceleration
Not two, but three kinds of kinds:

- Indifferent
- Adaptive
- Reflexive

- Non-semiotic
- Semiotic
- 2nd order semiotic

“Interactive kinds”

- confuses the question of levels with the relation between the (scientific) observer and the observed
- this is better discussed in terms of systemic sciences (sciences that influence their subject area) and reflexive objectivity (concerning the influence of the cognitive context)

Implications
There are exactly three basic ontological levels

The levels are semiotic, distinguished by the type of relations found on each level

• The levels correspond to major evolutionary explosions
  • Secondary explosions are due to ‘systems’ evolution based on the available type of relations

• The top level is characterised as second-order semiosis – the representation of representations
  • This corresponds to processes of self-consciousness and self-reflexive communicative systems

Conclusions
Levels of semiosis: Three kinds of kinds

Hugo F. Alrøe
Gatherings in Biosemiotics 2015

Web: hugo.alroe.dk – with publications for download
Email: hugo.f.alroe/at/gmail.com