

# Discursivity and semiotic complexity as driving the shape of animal choice and human freedom

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स्वराज

*causa sui*

## What is freedom?

- Battle of definitions
- Topical agreement:  
the ability to do as one pleases
  - The ability of agents to determine their own behavior
  - Self-determination
  - A subject defining itself, being its own cause

To explain the *what* of freedom

one needs to explain the *how* of freedom

# A meaningful theory of freedom

A rich conception of freedom:

1. Ability - both to wish for some future and capable of acting in order to try and achieve the desired state of affairs
2. Action in the world
3. Self - a joint locus of willing and acting
  - a. Clear separation between the agent and the world
  - b. Interaction between the self and the world,  
at least to a degree - on self's terms

# The desiderata of freedom

## 1. **Access to realizable alternative**

Accessing different courses of action mentally

## 2. **Imagination**

Being able to imagine the outcome of choice

## 3. **Activity in the world**

Ability to act in the world: perception, responsiveness, etc.

## 4. **Self-control**

Not merely spontaneity but action driven by the imagined outcomes

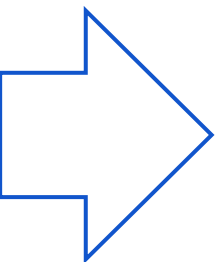
## 5. **Conscious intentionality**

Conscious connection between imagining and acting

# The problem of freedom

*How can biochemically constructed beings,  
subject to biological and thus ultimately physical causality,  
be capable of determining themselves and pursuing the chosen course of action?*

the *how* of freedom



we need

material entities in a material world,

determined entities in a determined world,

that are not merely objects of causality but its subject, its source

Life

# Freedom is life, life is freedom

- A self that determines itself
- Boundary between the self and the world
- Interaction with the world
- *Autopoiesis*: life creates itself, directs itself, renews itself

“The self exists only insofar as that which is inside contains an intentionality toward or reference to that which is outside - an *aboutness*”

1. Access to realizable alternatives
2. Activity in the world
3. Self-control

The question of freedom

is the question of the evolution of freedom.



# Three steps toward substantial animal freedom



## 1. Awareness

- Naked awareness of own discomfort (hunger, thirst, etc.)
- Required for future subject-object distinction

## 2. Sentient consciousness

- Subject-object distinction without an awareness *of* this distinction

## 3. Representing consciousness

- The ability to record, recall, associate, and generalize over sensory images



Bateson's dolphins

Semiotic complexity and  
competence increase

# Gradual development

The scope and depth of choice is enabled by and is correlated with  
“the depth of meaning communicated or interpreted by living systems”\*

- Complexity of the organism’s *Umwelt*
- The ability to interpret signs

gradual “loosening of the rigid causal bonding of one signal to one response”\*\*

\* Hoffmeyer, 2010. God and the World of Signs: Semiotics and the Emergence of Life, *Zygon*, 45(2), 367-390. 377

\*\* Hoffmeyer, 2008. *Biosemiotics: An Examination into the Signs of Life and the Life of Signs*. 154

# Forms of life

- Aristotle's *psyche* (*ψυχή*): nutritive/plant, sensitive/animal, rational/discursive
- Wittgenstein's *Lebensform*: way of behaving, esp. using signs
- Agamben:
  - *zoe* (*ζωή*) - biochemical body and  
*bios* (*βίος*) - the use *zoe* makes of itself
  - Overcoming the difference  
between the static *psyche* and dynamic *Lebensform*
  - The use *zoe* makes of itself -  
*umweltlich*, biosemiotic in all what pertains to its active life in the world

# Forms of life as forms of freedom

- The way freedom is actualized is defined by the type of the form of life
- Two main types:
  1. *Poor-in-world*
  2. *World-building*

*weltarm*

*weltbildend*

# Animal choice: Poor-in-world getting richer

- (1) Centrally controlled unified organism, (2) sentience, (3) acting in the world
  - Hegel: *concrete subjectivity*, or existence *for itself*
- Greatly varies on all three dimensions
  - Subject-object distinction, aware of its own sensations  
yet not *as* sensation
  - Perceives and stores sensory images, intuits objects, associates,  
generalizes, recollects  
yet not aware of these *as* perception, storing of images, etc.

# Animal choice: Poor-in-world getting richer

Non-verbal animal's *Umwelt*:

- Can expand across the dimensions of control, sentience, and action
  - In an individual: based on life experience and generalization within the inherited biological toolset
  - In a species: can evolve the toolset
- Yet no self-directed improvement or world-changing projects
- Heidegger: *weltarm*, poor-in-world

fear

# Animal freedom

Choosing among available alternatives  
without being able to create new ones intentionally.

# Human's world-building freedom

Dog's love  
vs  
human love

- Reflexivity, the ability to address itself
  - Discursive metacognition
- Tool: language
  - Chomsky: the Basic Property of Language - mental contents ranging over other mental contents
  - Enabled by the *Merge* operation:  
combining two existing signs into a new sign with a new meaning

→ *Aware and virtually unlimited aboutness*



# Human's world-building freedom

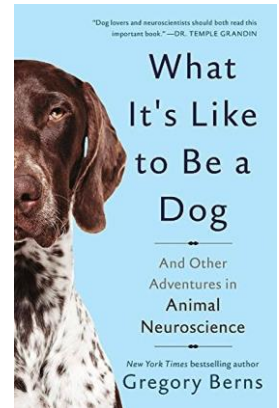
- Human *Umwelt*:
  - Going *meta* on every mental content
  - Normative considerations
  - Reasoned scrutiny
    - Which can also lead to a decision not to engage in one
- Dynamic
  - Sprouts new dimensions
  - Always-ready-to-explode semiotic complexity
- Heidegger: *weltbildend*, world-building

*Rational animal*: not a specific sort of cognitive behavior but the ability to scrutinize itself

Uexküll's cholera bacilli

Mutual understanding

Understanding other species?



# Human freedom

- Generate new alternatives
- Expand the space of alternatives
- Conceptual criteria
  - We can choose what criteria to apply



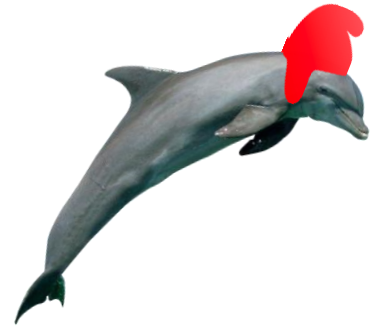
- Absolute freedom - not lack of constraints  
but the ability to consider any aspect of choice
- Self is an object of conscious choice
- Human life form - not having a definite form

Meta: thinking about...

Pico della Mirandola: *We have given to thee, Adam, no fixed seat, no form of thy very own, no gift peculiarly thine [...] Neither heavenly nor earthly, neither mortal nor immortal have We made thee [...] though mayest sculpt thyself into whatever shape thou dost prefer.*

# Implications: Animal rights

- For non-verbal animals -  
currently rooted in their ability to feel pain,  
yet for humans - in freedom, having the ability to choose
- Redefining the discussion:  
the type of freedom a subject possesses  
would define the rights it can be ascribed
  - Bateson's dolphins go free



# Implications: Artificial intelligence and freedom

- Intelligence is tied to the ability to choose
- A computer program, even a neural network that can alter its own parameters based on inputs, cannot be free - it does not determine itself
- To achieve genuine AI, we might want to consider mimicking evolution
  - For example: neural networks that are programmed to jump-start a process of giving rise to new autonomous neural networks, having something like descent with modification, need for resources to survive and procreate, etc.

# Implications: Intellect, IQ assessment, education

- Intellect as the ability to consider multiple dimensions of choice, expand its scope
  - The real *g factor*
  - Emotional intelligence as considering the subjectivity of others
- IQ assessment that focuses on specific abilities, e.g., reading comprehension, does not measure human intellect
  - The ability to go meta?
- Education - to enable better choosing?

# Ethics: Responsibility

- Having the capacity to alter the dimensions of choice and being aware of this capacity leads to the imputation of responsibility -
  - To choose where to make choices
  - To make choices in the situation one is thrown into
  - For the consequences of the said choices
- The outsourcing of responsibility to enforcement institutions

angst

Tak!

# ANIMAL CHOICE AND HUMAN FREEDOM

On the Genealogy of Self-Determined Action

MICHAEL YUDANIN

