

The Phylogeny of the self

自己 نفس

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A 4 day workshop with author Dr. Rupert Glasgow

25.04./26.04.19 + 29.04./30.04.19

Venue: Leibniz Institute for Neurobiology (LIN)
Brennekestr. 6 39112 Magdeburg

Please register at achim.engelhorn@lin-magdeburg.de

Dear all,

there will be a 4 (full) day workshop "**Phylogeny of the Self**" with author Dr. Rupert Glasgow* at LIN, around the last weekend in April 2019; in particular:

Part I, 25.04.19: Genetic self, viral self, unicellular self
Part II, 26.04.19: Self and non-self
Part III, 29.04.19: Multicellular and multi-organismal self
Part IV, 30.04.19: 'Higher' forms of selfhood
01.05.19: Social event

The workshop will be in English, based on the **reading list below**. Excerpts from the listed texts will be provided in advance, in case the number of available time slots for your preparation is restricted. For more details, see course summary and reading list below.

Currently we are also preparing the workshop to get registered in OvGU's LSF, so **e.g., PNK students will be able to acquire credit points**. For **early registration or questions concerning credit points**, please contact achim.engelhorn@lin-magdeburg.de

best regards,

Achim Engelhorn

* https://en.wikipedia.org/wiki/Rupert_Glasgow

Course Summary

The aim of the course is to analyse the concept of a 'self'. This is defined in terms of 'intrinsic reflexivity', exemplified by notions such as self-organization, self-maintenance, self-reproduction and self-containment, as laid out in my 2017 book *The Minimal Self* (Würzburg University Press). The course will on the one hand explore the different levels of selfhood implied by this definition. On the other hand, a recurrent theme will be how selfhood conceived in these terms provides the foundation for the possibility of consciousness. The idea is to explore the neurobiological preconditions required for the most rudimentary forms of consciousness to develop into the sophisticated consciousness enjoyed by humans, the topic of my 2018 book *Minimal Selfhood and the Origins of Consciousness* (also Würzburg University Press).

Such an analysis of selfhood covers a range of levels, extending from the genetic level via the cellular level through to the level of multicellular organisms such as animals and the collective selfhood of super-organisms. It will involve analysing what is meant by 'selfish' genes and DNA, the possible attribution of selfhood to viruses, and the selfhood of unicellular prokaryotes and protists, as well as the implications of the transition to multicellular metazoan selfhood. We will look at immunological selfhood as the defence of self against the incursion of non-self, and at the criteria that would have to be met to ascribe selfhood to an artificial system or robot. We will discuss the relationship between selves and their embodiment in a brain or nervous system, which in turn raises the much-discussed issues of 'extended selfhood' and 'extended mind'. We will further assess the possible ascription of selfhood to super-organisms such as colonies of hymenopterans, as well as to other eusocial or cooperative societies (including humans), and even to the biosphere in its entirety as a self-regulating system.

At the level of conscious metazoan selfhood, topics will include the role of corollary discharge, proprioception and self-body-size perception as constituting what has been called the 'tacit selfhood' of an organism, as well as possible pathological conditions such as schizophrenia and anorexia that may occur when this is disrupted. We will discuss the test of mirror self-recognition as a 'cognitive Rubicon' (de Waal) in complex selfhood, and the emergence of a 'theory of mind' or 'theory of self' in animals such as corvids, cetaceans and primates. Our discussions will end with a consideration of the features that have traditionally been considered unique to the specifically human form of selfhood – features such as morality, language, self-determination and a sense of time – and the extent to which these too may be found in non-human life forms.

The underlying aim is to explore how a proper understanding of 'selfhood' throws light both on the fundamental nature of living entities and on the emergence of increasingly complex forms of consciousness.

Reading list:

Genetic self:

L. E. Orgel & F. H. C. Crick, 'Selfish DNA: the ultimate parasite,' in *Nature*, vol. 284, 17 April 1980, 604-7

Think about: [selfish genes and selfish DNA, viruses, mitochondria and endosymbionts](#)

Unicellular self:

D. Gibbs and O. P. Dellinger, 'The daily life of Amoeba proteus', *The American Journal of Psychology* 19(2), 1908, 232-241

Think about: [the nature of consciousness](#)

Immunological self; self/non-self discrimination:

P. Matzinger, "The Danger Model: A Renewed Sense of Self," in *Science*, vol. 296, 12 April 2002, 301-305

P. Rozin and A. E. Fallon, 'A Perspective on Disgust', in *Psychological Review* 94(1), 1987, 23-41

Think about: [the nature and extent of immunity as a feature of selfhood](#)

Robotic self:

I. Kelly et al., 'SlugBot: A Robotic Predator in the Natural World', in *Proceedings of the Fifth International Symposium on Artificial Life and Robotics for Welfare and Artificial Life-robotics*, 2000, pp. 470-475

Think about: [whether robots can be selves](#)

Self and brain / the extended self:

A. Clark and D. Chalmers, 'The Extended Mind', in *analysis* 58(1), 1998, 7-19

D. Brooks, 'The Outsourced Brain', in *The New York Times*, 2007

Think about: [where a self and its mind begins and ends](#)

Superorganismal self:

D. C. Queller and J. E. Strassmann, 'The Many Selves of Social Insects', in *Science*, vol. 296, 12 April 2002, 311-13

I. Couzin, 'Collective minds', in *Nature*, vol. 445, 15 February 2007

Think about: [super-organisms and collective selfhood](#)

'Tacit' self:

T. B. Crapse and M. A. Sommer, "Corollary discharge across the animal kingdom," in *Nature Reviews Neuroscience*, August 2008, vol. 9, 587-600

L. A. Sass and J. Parnas, 'Schizophrenia, consciousness and the self', in *Schizophrenia Bulletin* 29(3), 2003, 427-444

Think about: [corollary discharge, proprioception, self-body-size perception and possible pathologies](#)

'Re-cognitive' self:

Helmut Prior et al., "Mirror-Induced Behavior in the Magpie (*Pica pica*): Evidence of Self-Recognition," in *PLoS Biology*, 2008, 6(8), 1642-50

M.-C. Cammaerts and R. Cammaerts, "Are Ants (Hymenoptera, Formicidae) Capable of Self Recognition?" in *Journal of Science* 5(7), 2015, 521-532

Think about: [what is necessary for a self to recognize itself as itself](#)

Empathetic self:

F. B. M. de Waal, 'With a little help from a friend', in *PLoS biology* 5(7), 2007, e190

Think about: [empathy and the capacity of one self to identify with another, the origins of altruism](#)

Human self:

M. Tomasello and H. Moll, "The Gap is Social: Human Shared Intentionality and Culture," in P. M. Kappeler and J. B. Silk, eds., *Mind the Gap: Tracing the Origins of Human Universals*, Berlin: Springer, 2010: pp. 331-49

R. F. Baumeister et al., "Ego depletion: is the active self a limited resource?" in *Journal of Personality and Social Psychology* 74(5), 1998, 1252-1265

Think about: [what is or is not distinctive about human selfhood: language, memory, freedom ...](#)

Further readings (not mandatory for participation):

R. D. V. Glasgow: "The Minimal Self". Würzburg University Press, 2017

R. D. V. Glasgow: "Minimal Selfhood and the Origins of Consciousness". Würzburg University Press, 2018

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