



Fourth European Advanced School in the Philosophy of the Life Sciences (EASPLS)

Function and Malfunction in the Biological and Biomedical Sciences, and the Social Sciences

Klosterneuburg, September 5–9, 2016

Directors: Jean Gayon (Paris) – Alvaro Moreno (San Sebastian)

Co-organizing institutions

- * Centre for the Study of Life Sciences, University of Exeter
- * IAS-Research Center for Life, Mind & Society, University of the Basque Country, San Sebastian
- * Institute for the History and Philosophy of Science and Technology (IHPST), Paris-1 Sorbonne
- * Institute of Philosophy, Leibniz University Hannover
- * Faculty of Sciences and Department of Philosophy/Faculty of Humanities, University of Geneva
- * KLI, Klosterneuburg/Vienna



An Institute for the Advanced Study
of Natural Complex Systems



Call for papers

The European Advanced School in the Philosophy of the Life Sciences (EASPLS) will hold its fourth meeting on September 5–9, 2016 at the KLI in Klosterneuburg near Vienna, Austria, on the topic: “**Function and Malfunction in the Biological and Biomedical Sciences, and the Social Sciences.**”

Young scholars (PhD students and early post-doctoral researchers) in the history and philosophy of the life sciences (including medicine) and young social scientists are invited to apply. Candidates should send **a letter of motivation** along with **their CV**, and **a title and abstract of about 500 words** in a single file (labeled: name-easpls2016.pdf) to Isabella Sarto-Jackson:

sarto@kli.ac.at

The deadline for applications is March 31st, 2016

Applications will be evaluated and applicants will be notified of the outcome in late May/beginning of June.

The **registration fee** is 570,- € (accommodation in single rooms and lunches are included; travel expenses and dinners are not included).

Please find more details at: www.easpls2016.kli.ac.at.

EASPLS: General presentation

The European Advanced School for the Philosophy of the Life Sciences is organized by top level institutions in the philosophy and history of life sciences: the ESRC Centre for Genomics in Society (University of Exeter); the IAS-Research Center for Life, Mind & Society (University of the Basque Country, San Sebastian); Faculty of Sciences and Department of Philosophy/Faculty of Humanities (University of Geneva); the Institut d’Histoire et de Philosophie des Sciences et des Techniques (IHPST, Paris-1 Sorbonne), the Institute of Philosophy (University of Hannover); the Konrad Lorenz Institute for Evolution and Cognition Research (KLI, Klosterneuburg). The EASPLS Advanced School is a biennial event and aims at fostering research, the advancement of students, and collaborations in the field of the philosophy of the biomedical sciences, broadly conceived.

The venue is located in Klosterneuburg near Vienna, Austria. Accommodation (single rooms) will be in a hotel in Vienna close to the train stop of a direct train line to the venue.

The EASPLS is characterized by its unique format: The schedule mixes presentations of senior researchers and presentations by PhD students and young post-doctoral researchers. The selected contributors will be asked to either (1) give a paper on the topic they propose, or (2) to comment on a senior researcher's presentation, or (3) participate in a round table discussion moderated by a senior researcher (time allocated: senior's presentation 35'; junior's commentary 15'; junior's presentation 25'; round table discussion with 4 discussants & 1 moderator 90').

The best papers resulting from the meeting will be published in a thematic issue or section of an international journal in the field.

The Topic

Function and Malfunction in the Biological and Biomedical Sciences, and the Social Sciences

Functional ascriptions and functional explanation have been major topics in philosophy of science since the 1950s. A turning point was attained in 1973, when Larry Wright proposed his 'etiological theory of function', according to which 'The function of X is Z means (a) X is there because it does Z ; (b) Z is a consequence (or result) of X 's being there.'¹ According to Wright, such a definition of function satisfied three requirements that were essential to him: (1) it offered a criterion for distinguishing a function from a mere effect; (2) it applied both to biology and to artifacts; (3) it was able to capture the normativity of functional ascriptions, that is the implicit assumptions that malfunction is always a possibility (a given object may have a function, and nevertheless be unable to accomplish that function).

Shortly after Wright's article, in 1975, Robert Cummins proposed a very different definition of function, according to which ascribing a function to something 'is to ascribe a capacity to it which is singled out by its role in an analysis of some capacity of a containing system'². Contrary to the 'etiological' theory, which looks backwards, the 'causal role' theory of function looks forward. As Wright's concept of function, Cummins' concept

¹ Larry Wright, "Functions", *The Philosophical Review*, 82 (1973): 139-168.

² Robert Cummins, "Functional analysis", *The Journal of Philosophy*, 72 (1975): 741-765.

applied both to biological and technical objects, but did not take into account normativity. In open opposition to Wright, Cummins insisted that functional ascriptions had nothing to do with the past history of a system, and should be understood exclusively from the viewpoint of the present organization of a system. Because Cummins also (and erroneously), reduced Wright's concept of function to that of 'selected effect', Wright's and Cummins' seminal papers of were the origin of an ongoing debate between authors adhering to 'backward looking' or 'evolutionary' theories of function, and authors defending a 'forward looking' or 'dispositional' theories of function.

Another philosopher who played an important role was Christopher Boorse, who proposed in 1976 to define function as the causal contribution of something to a goal in a teleological system³. This concept is close to Cummins's concept, but the originality of Boorse was to connect the debate of function with the debate on health and disease. For Boorse, function is a non-normative concept, itself part of a non-normative concept of disease and health: disease is no more than dysfunction; and health is 'typical functioning', defined in terms of available physiological knowledge and statistical normality⁴. Correlatively, for Boorse, in sum, normative issues come into play only for a subclass of human disease, which he calls 'illness'. Illness is disease plus subjective and social components⁵. Yet, since Boorse defines disease in terms of statistical abnormal functioning of a specific trait in comparison with the average functioning of traits of the same type in individuals of a concrete "reference class" (members of the same species, gender and age), and health, instead, as simply the absence of disease, its view raises many difficulties to establish a clear frontier between healthy (normal) and unhealthy (abnormal) levels of functioning without adducing subjective and arbitrary considerations. And in this sense, it is dubious that this approach can be really consistent with a biologically grounded theory of functions.

This debate on the other hand, goes beyond the domain of Life Sciences and affects in many aspects nuclear questions of the social sciences. In particular, the debate about functions and malfunctions has affected directly the philosophy of technology, questioning whether the biological theories of function (and malfunction) could or could not be applied to human made artifacts.

³ Christopher Boorse, « Wright on functions », *The Philosophical Review*, 85, (1976) : 70-86,

⁴ Christopher Boorse, « Health as a theoretical concept », *Philosophy of Science*, 44 (1977): 542-573.

⁵ Christopher Boorse, « On the distinction between disease and illness », *Philosophy and Public Affairs*, 5 (1975) : 49-68.

The purpose of the 4th EASPLS is to reassess the modern philosophical debate on function in the dual perspective of (1) malfunction (or dysfunction), and (2) with respect to the use of such concepts in both the biological and the social sciences, with a particular concern for the interrelations and interactions between these two fields. Applicants are expected to submit a title and an abstract that fit with this overall scheme. Here is a list of particular questions illustrating the general question. This list should be taken as open rather than exhaustive.

- Should the concept of function leave room for normativity? If yes, how?
- How does this relate to reflections about malfunction?
- To what extent does the debate about health and disease in the philosophy of medicine meet with the function/malfunction debate?
- How can the social sciences contribute/have contributed to this debate?
- Speaking of malfunction seems to imply that there is something like “normal” functioning (Boorse); can this be an objective concept or not?
- What is the reference system for the concept of function/malfunction (e.g., levels of organization below and above the organismal level)?
- To what extent is it appropriate to speak of function or malfunction in the social or economical sciences?
- Do we need a common concept of function and malfunction for the biological, social and technological domains?
- Has the philosophical reflection about malfunction, dysfunction, and abnormality significantly evolved over the past 40 years?