

Information, action and four-dimensional graded consciousness in the context of ongoing debates concerning the measures, functions and mechanisms of consciousness

The overriding aim of this project is to justify answers, or at least optimally likely solutions, to some of the following questions: What are the essential features of consciousness? What is the function, or what are the functions, of consciousness? What are the mechanisms responsible for the production of consciousness? Which biological creatures or artificial systems are or might be conscious? Is consciousness graded or dichotomous?

The research will attempt to shed new light on current debates relating to measures of consciousness. It will also seek to justify the multidimensional graded character of the phenomenon and the usefulness of notions of *information* and *action* in this context (see Jonkisz 2015, 2016, and Jonkisz et al. 2017).¹ It is hoped that achieving these results will then open up significant new possibilities for, *inter alia*:

- a better understanding of the graded character of consciousness;
- more precise differentiations between subjective measures of consciousness;
- proposing certain new or modified measuring methods;
- more accurate descriptions of certain phenomena (e.g. *blindsight*, *locked-in-syndrome*);
- more comprehensive assessments of disorders of consciousness;
- more accurate evaluations of consciousness in non-human animals or artificial systems;
- a better understanding of certain key notions used in current theories, such as *information*, *action*, *subjectivity* and *individuation*, and of their relationships to one another.

If the four-dimensional graded consciousness framework that this project applies and seeks to justify is on the right path, then it seems likely to exert a significant impact on many areas: e.g. certain aspects of legal systems, medicine, animal studies, education, etc. For example, it will no longer be possible to judge responsibility for certain deeds just on the crude basis of one's being conscious or not. It may also turn out to be the case that various living creatures actually possess some surprisingly high-level aspects of consciousness, and so cannot be described simply as non-conscious, or even as less conscious than other more developed ones. In addition, it is quite likely that certain medical procedures designed to assess patients with disorders of consciousness will be required to differentiate between functional, physiological, phenomenal and semantic dimensions.

¹ Jonkisz, J., Wierzchoń, M., Binder, M. (2017) Four-dimensional graded consciousness, *Front. Psychol.* 8:420. doi: 10.3389/fpsyg.2017.00420. Jonkisz, J. (2016), Subjectivity: A Case of Biological Individuation and an Adaptive Response to Informational Overflow, *Frontiers in Psychology*, 7:1206. doi:10.3389/fpsyg.2016.01206. Jonkisz, J. (2015), Consciousness: individuated information in action, *Frontiers in Psychology*, 6:1035. doi:10.3389/fpsyg.2015.01035.