

## Comments

### on “Hermeneutics and the Cognitive Sciences”

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#### **Andrzej Kapusta:**

translation: Nelly Strehlau

In his research in cognitive science Shaun Gallagher is inspired by phenomenology and hermeneutics. His most prominent book, *How the Body Shapes the Mind* (2005), similarly to most of his published articles focuses on the question of embodiment and involved epistemology (situated cognition). He draws upon the subject of consciousness, especially the differentiation between self ownership and self agency (as well as the “narrative self”), as well as touches upon the subject of intersubjectivity, cognition of other minds. The central theme of his research is embodiment and contextual cognition. The philosophical approach of his analyses comes from the tradition of phenomenological description of human experience (Husserl, Heidegger, Merleau-Ponty, Dreyfus). Nevertheless, he attempts to combine philosophical methodology with cutting edge research in the fields of developmental psychology, neurobiology and robotics.

This article presents the broadly defined subject of understanding human behaviour. Its starting point is the continental tradition of phenomenological and hermeneutic description of human behaviour. Gallagher, however, stands in the opposition to the distinction between the methods of understanding human behaviour and scientific methodology. He attempts to demonstrate the possibility of mutual cooperation between hermeneutics (or phenomenology) and cognitive science. The author shows competence in humanist methodology, knowledge concerning the research of Dilthey, Ricoeur and Gadamer (in his other texts he references also Husserl and Merleau-Ponty), as well as uses the body of knowledge regarding developmental psychology and neurocognitive sciences.

After a fashion, Gallagher follows the way of another American philosopher, Hubert Dreyfus, who in his time performed the critique of theoretical underpinnings of the artificial intelligence technology. The scientists who already in the 1960s were hoping to create intelligent robots looked down on the achievements of philosophers and their empty armchair divagations. However, as Dreyfus demonstrated, and as Gallagher does now, empirical and technical models of artificial intelligence also have their own (often incorrect) philosophical assumptions.

An important element of these discussions is the disagreement over the notion of representation, over whether intelligent beings require in their actions and learning process context-independent representations, propositional knowledge, knowledge-that (as opposed to know-how). Gallagher, drawing upon the analyses of Heidegger (in Dreyfus's interpretation) and Merleau-Ponty sees human action as deeply rooted in surroundings. The context, which enables specific abilities and choices, does not merely extend to narrowly understood aims and well-organized tasks. Computational models which reference representation and algorithms are effective only in strictly indicated, precise, predictable conditions. Our daily experience, in turn, is characterised by ambiguity and pragmatically-entangled situations.

Gallagher perceives the relation of cognitive science and hermeneutics in a way similar to the one in which he had formerly (with Varela) done this with phenomenology. Both perspectives may enrich and contribute to one another in a mutual dialectical "enlightenment". The problem of understanding others may be an illustration of this cooperation. Neurocognitive research referring to mirror neurons is to contribute to explaining the phenomenon of empathy. Critical research into mirror systems, however, reveals their limited possibility of explaining the complex phenomenon of intersubjectivity. A hermeneutic-phenomenological perspective sees a number of limitations in the popular in psychology and mind theory concept of folk psychology (theories of theories, theories of simulation) and substitutes them with the theory of interaction. A hermeneutic approach alone can, on the basis of cognitive and psychological theories, gain new, better insight into the nature of the process of understanding.

#### **Bibliography:**

Gallagher, S. 2004. Hermeneutics and the Cognitive Sciences. *Journal of Consciousness Studies*, 11, No. 10–11.

Gallagher, S. 2005. *How The Body Shapes the Mind*. Oxford University Press.

## **Marek Pokropski:**

translation: Joanna Kucharska

In *Hermeneutics and the Cognitive Sciences* one can find the main ideas of Shaun Gallagher's philosophy of cognitive science. These are: critique of the computational theory of mind and the computer metaphor, inclusion of phenomenological and hermeneutical components in the cognitive sciences methodology, critique of representationism and stressing the role of the body in the cognitive processes.

The main thought of both the aforementioned article and Shaun Gallagher's other publications is moving away from the cognitive science explaining cognition in the abstract computational models terms toward understanding cognition in the context of bodily activity in the world. Gallagher refers to phenomenology, especially Husserl's and Merleau-Ponty's, as it is a methodical study of the structure of experience and provides the necessary tools for this purpose. In his conception of cognitive science, Gallagher successfully combines the phenomenological approach with the latest results of empirical studies. Furthermore, according to Gallagher, phenomenology could significantly improve the process of carrying out such studies.

Taking the above remarks into account, it has to be said that Gallagher is the author of the front-loading phenomenology<sup>28</sup>, a specific compound of the phenomenological method and the experimental science. In this concept, a phenomenologist cooperates with a group of researchers in designing the experiment. The phenomenological analysis applied at the beginning of the research process is meant to help in setting the conceptual distinctions and posing the hypotheses. Gallagher gives an example of research based on the phenomenological distinction of the body schema and the body image.

Gallagher, starting his philosophic carrier from analyzing the conception of time in phenomenology, is currently, amongst authors such as Andy Clark, Francisco Varela or Alva Noë, one of the leading authors of the embodied cognition paradigm. This paradigm started to emerge at the beginning of the 90s, and within its scope we can find different approaches, each underlining to a different degree the role of the body in shaping the cognitive processes. Among those representing this paradigm Gallagher, together with A. Noë, E. Thompson and F. Varela, with whom he worked with, could be considered as radical, or one of the scientists who went farthest in the interpretation of the cognition as embodied. In short, radical embodiment, also called enactivism, states that the cognition doesn't happen "in the head", but is a process spread between the brain, the body, and the environment. As such, this approach states that all cognitive processes are embodied and irreducible into an abstract computational model. Furthermore, the 'radicals' generally shun the concept of representation as unclear and ineffective in its explanatory aspect. Enactivism also poses that cognition is determined through the task that is currently taken up by the organism, or is possible.

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<sup>28</sup> See: S. Gallagher. 2010. Phenomenology and Non-reductionist Cognitive Science. S. Gallagher, D. Schmicking, red. *Handbook of Phenomenology and Cognitive Science*. Springer.

To find an example of a conception created on the basis of the radical embodiment/enactivism we can turn to the intersubjectivity and social cognition, a topic that Gallagher has been recently working on. He rejects the most popular views on cognition of others: theory theory and simulation theory, proposing his own approach instead, one that could be called interaction theory<sup>29</sup>. Recalling empirical experiments (for example C. Trevarthen's and A. Meltzoff's, as well as studies on mirror neurons) Gallagher poses claims that cognition of others is a fully embodied process and happens mostly in the pre-reflective manner. In short, the basis of our understanding of others is based on actual and possible interactions. This approach can be the springboard for forming a wider theory of intersubjectivity which would take into account language and sociocultural context.

### **Bibliography:**

- Gallagher, S. 2004. Hermeneutics and the Cognitive Sciences. *Journal of Consciousness Studies*, 11, No. 10–11.
- Gallagher, S. 2007. Simulation trouble. *Social Neuroscience*, 2 (3–4).
- Gallagher, S. 2010. Phenomenology and Non-reductionist Cognitive Science. S. Gallagher, D. Schmicking, ed. *Handbook of Phenomenology and Cognitive Science*.

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<sup>29</sup> See: S. Gallagher. 2007. Simulation trouble. *Social Neuroscience*, 2 (3-4): 353-65.



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## Hermeneutics and the Cognitive Sciences

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Shaun Gallagher

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### Abstract

Philosophical hermeneutics, understood as the theory of interpretation, investigates some questions that are also asked in the cognitive sciences. The nature of human understanding, the way that we gain and organize knowledge, the role played by language and memory in these considerations, the relations between conscious and unconscious knowledge, and how we understand other persons, are all good examples of issues that form the intersection of hermeneutics and the cognitive sciences. Although hermeneutics is most often contrasted with the natural sciences, there are some clear ways in which hermeneutics can contribute to the cognitive sciences and vice versa.