DE GRUYTER OPEN

STUDIES IN LOGIC, GRAMMAR AND RHETORIC 41 (54) 2015

**Witold Wachowski**
University of Warsaw, Poland

**Witold M. Hensel**
University of Bialystok, Poland

# INTRODUCTION

Recent years have seen a growing interest among cognitive scientists in the role of the body and the environment in cognition. As a result, theoretical approaches which view cognition as shaped by factors that used to seem irrelevant to explaining the mind are quickly gaining currency.

This new trend has given rise to a wide range of positions. Thus, proponents of embodied cognitive science maintain that aspects of the body, not only the brain, play a significant part in cognition (Shapiro, 2014). Advocates of the extended mind thesis and the theory of situated cognition go a step further. They argue that elements of the environment often reduce the complexity of a cognitive task and even serve as components of cognitive processes themselves (Robbins & Aydede, 2008; Menary, 2012). In a similar vein, exponents of the theory of distributed cognition construe the cognitive system as consisting of agents and parts of their surroundings, which means that cognitive processes do not occur *inside* the agents' heads, but rather *between* the agents and the remaining components of the system (Hollan, Hutchins, & Kirsh, 2000). Ecological psychology, on the other hand, connects observers and environments by employing the notion of affordance, which is designed to cut across the dichotomy of the subjective and the objective ("Ecological Psychology", 2003), while enactivism accounts for cognition in terms of action, focusing on the dynamics between the acting agent and the world (Komendziński, Nowakowski, & Wachowski, 2014). There are also interesting research programs that combine insights from Science, Technology & Society Studies with those of cognitive science in order to investigate how the cognitive shapes the social and vice versa (Giere & Moffatt, 2003).

ISBN 978-83-7431-450-3 ISSN 0860-150X 

Needless to say, none of these ideas is uncontroversial. Critics complain that, at present, research results do not lend sufficient support to the theses of embodied and extended cognition, that the anti-representationalism and anti-computationalism of many of the new approaches seem unconvincing and premature, and that some of the positions are plagued by inconsistencies (Adams & Aizawa, 2008; Rupert, 2010; de Vignemont, 2011). What is more, new empirical and theoretical studies only add fuel to the fire (see for example, Hutto & Myin, 2013; Kirchhoff, 2015).

These controversies were the subject of many stimulating discussions at the first *Trends in Interdisciplinary Studies* conference entitled *Thinking with Hands, Eyes, and Things*, which was held in Torun, Poland, in 2013. The present volume grew out of those discussions.

## REFERENCES

Adams, F., & Aizawa, K. (2008). *The bounds of cognition*. Oxford: Blackwell Publishing.

Giere, R. N., & Moffatt, B. (2003). Distributed cognition: Where the cognitive and the social merge. *Social Studies of Science*, *33*, 301–310.

Hollan, J., Hutchins, E., & Kirsh, D. (2000). Distributed cognition: Toward a new foundation for human-computer interaction research. *ACM Transactions on Computer-Human Interaction*, *7*(2), 174–196.

Hutto, D. D., & Myin, E. (2013). *Radicalizing enactivism: Basic minds without content*. Cambridge, MA: The MIT Press.

*Ecological Psychology*. (2003). *15*(2).

Kirchhoff, M. D. (2015). Experiential fantasies, prediction, and enactive minds. *Journal of Consciousness Studies*, *22*(3–4), 68–92.

Komendziński, T., Nowakowski, P., & Wachowski, W. (Eds.). (2014). Enactivism: arguments and applications [Special issue]. *Avant*, *5*(2).

Menary, R. (Ed.). (2012). *The extended mind (life and mind: philosophical issues in biology and psychology)*. Cambridge, MA: The MIT Press.

Robbins, P., & Aydede, M. (Eds.). (2008). *The Cambridge handbook of situated cognition*. Cambridge: Cambridge University Press.

Rupert, R. D. (2010). *Cognitive systems and the extended mind*. Oxford: Oxford University Press.

Shapiro, L. (Ed.). (2014). *The Routledge handbook of embodied cognition*. London: Routledge.

de Vignemont, F. (2011). A mosquito bite against the enactive approach to bodily experiences. *Journal of Philosophy*, *108*(4), 188–204.