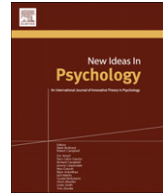




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Editorial

ISI 2007: Perspectives on Interactivism. Introduction

In May of 2007, a diverse group of researchers from five continents gathered at the American University of Paris for the Fourth Interactivist Summer Institute. For four days we braved dismal weather and an overvalued Euro, but were more than compensated by the excellent company and conversation this conference afforded. In all we were treated to 24 presentations by as many participants. The topics of these talks ranged from cognitive psychology and epistemology to robotics and dynamical systems theory, and consequently there was not a one of them that did not leave at least a few of those in attendance sorely challenged. But besides welcoming such challenges, we all had in common an interest in what the Interactivist Program (see e.g. Bickhard, 2009) could do for our respective fields, and for the relationships among them.

At the conclusion of the conference it was agreed that by publishing a sampling of its contributions, we might offer the broader scientific community a sense of the depth and breadth of interactivist research. A call for papers was circulated among participants, ultimately yielding the ten papers compiled in this special issue of *New Ideas in Psychology*. Some of them are refined versions of the papers presented in Paris, and some are newer work on related themes. It was tempting to simply group them by disciplinary focus—but on reflection, that approach seemed an injustice to the interdisciplinary character of interactivist research, an interdisciplinarity in which all of these papers share. Instead, I have elected to group them, not without some arbitrariness, by theme, selecting three problem constellations to which interactivism has been directed since its inception: emergence, agency and representation, and learning.

1. Emergence

Discussions of emergence (e.g. of emergent properties) have a long history within the philosophical literature. In recent years, this discussion has been dominated by the contributions of Jaegwon Kim (see e.g. Kim, 1998), who has consistently argued against the possibility of emergent entities or properties whose causal efficacy cannot be captured by recourse to the properties of their microphysical constituents. The interactivist response has been to demonstrate, first, that such arguments presuppose a substance metaphysics, and second, to develop an alternative process-metaphysical framework within which an interactivist account of “downward” causation might be articulated and defended. Such an account would, in turn, serve to ground the causal efficacy of such all-important emergent entities as *agents*.

The contribution of Jost, Bertschinger, and Olbrich, as well as that of Walmsley, are devoted to applying the lessons of dynamical systems theory toward accounting for the emergence of cognition and related processes in general. Richard Campbell's paper is directed more specifically toward accounting for the emergence of agency and action. Such an account is essential to any attempt to

explain the normativity of agents and their representations of their interactive environments, the task to which, in various ways, the three papers in the following section are addressed.

2. Agency and representation

Broadly speaking, this task, that of explaining the emergence and normativity of agents and their representations, is one of *naturalization*: of showing how norms can obtain *in nature*. Arnellos, Spyrou, and Darzentas are concerned with the naturalization of the norms of *autonomy*, without which naturalized agency is difficult to envision. In different ways, Buisson, Shani, and Robert Campbell, Eisner, and Riggs are all concerned with the emergence and normativity of various kinds of representation. Buisson accounts for an important class of representation by recourse to *internalized activities*, action schemas whose acquisition and operation is amenable to modeling. Shani offers an interactivist approach to an important, if neglected problem in theories of representation, that of the aspect-relativity of all intentional states. Finally, Campbell, Eisner, and Riggs consider the dialectical relationship between the theory of representation and the empirical assessment of such representations, with a view toward self-esteem in particular.

3. Learning

The most interesting emergent agents capable of representing themselves and their environments are capable of learning, a process about whose normativity interactivism has had a great deal to say. Florian considers the theoretical contribution of interactivism to the task of designing robotic agents capable of interacting with their environments in ways conducive to genuine learning. Roda and Bruno and Munoz are concerned with learning in human subjects. Roda employs aspects of interactivism toward an analysis of attentional challenges to such subjects in contemporary workplace environments, while Bruno and Munoz take up learning in classroom environments, applying interactivist tools toward the analysis of a case study.

I am grateful to all of the contributors to making this issue possible. Without exception, they have been diligent and prompt in responding to all of my requests. They have also, I must add, been extraordinarily patient in coping with an excessive delay in publication, for which my own bout of ill health in 2008 is to blame, and for which I alone am responsible.

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