

workshop & cfp

SYSTEMATICITY AND THE POST-CONNECTIONIST ERA: TAKING STOCK OF THE ARCHITECTURE OF COGNITION

19-21 May 2011
San Jose (Andalucia, Spain)

Is human thought systematic? How can we best explain it? According to Fodor & Pylyshyn's [seminal challenge](#), the only way for connectionist theory to account for the systematicity of thought is by implementing a classical combinatorial architecture. Connectionism, they claim, is otherwise doomed, managing at best to throw light upon details of the neural substrate. Unfortunately, by targeting the connectionism of the 80s, the discussion of how to meet the challenge of explaining systematicity got stuck in a false dichotomy. We are now in a post-connectionist era where the battle is not between classicism and connectionism, but rather between cognitivism—both classicist (symbolic) and connectionist (subsymbolic)—and a range of methodologies such as behavior-based AI, ecological psychology, embodied and distributed cognition, dynamical systems theory, and non-classical forms of connectionism. Under the banner of 'embodied cognitive science', these approaches are questioning not only the symbols-and-rules approach, but in some cases representationalism *tout court*. It is thus not clear to what extent the challenge to representational connectionism, as originally formulated and rehearsed, transfers to these other cognitive architectures. Thus, *even* if we granted that Fodor & Pylyshyn's systematicity argument proved effective against classical connectionism, we could continue to ask whether it poses a compelling challenge to post-connectionist methodologies.

Our workshop seeks to take stock of the architecture of cognition and revitalize the debate by discussing these and related issues as they arise in the treatment of the systematicity challenge within embodied cognitive science. Can we identify novel lines of response that ecological psychology, embodied and distributed cognition, or neurobiologically-plausible neural network theory, for instance, may try out? Can further progress be achieved by teaming up? Would such strategies incur in the same vices as previous connectionist responses? Would an implementational embodied cognitive science still serve to inform psychology? Likewise, it is timely to rethink what we really mean when we say that thought is systematic. What's the empirical evidence for or against the systematicity of thought? How does the systematicity of human thought relate to human and non-human systematic behaviors? What areas of research, other than language, can throw light upon the systematicity argument?

Call for papers

Researchers are invited to submit full papers or long abstracts for 40-minute presentations on conceptual, empirical or modeling issues that arise in the treatment of the systematicity challenge from post-connectionist approaches such as behavior-based AI, ecological psychology, embodied and distributed cognition, dynamical systems theory, and non-classical forms of connectionism. The range of topics to be addressed in the workshop really cuts across cognitive science disciplines. We encourage submissions from philosophers, psychologists, and computational neuroscientists alike, among other related fields. Our aim is to keep the workshop relatively small (space limited to 40 participants) and informal (see venue below) with enough time for extended discussions. We hope that this relaxed atmosphere will provide the opportunity for informal interaction and discussion.

Full papers or long abstracts (1,000 words plus references) should be sent in .doc or .pdf format to: Paco Calvo <fjcalvo@um.es> by **January 28, 2011**.

Plenary speakers

Ken Aizawa (Philosophy, Centenary College, LA, US)
Tony Chemero (Psychology, Franklin & Marshall College, PA, US)
Brian McLaughlin (Philosophy, Rutgers, NJ, US)
Steve Phillips (Mathematical Neuroinformatics Group, AIST, Japan)

Publication

A selection of the material presented will be published as a special issue of the journal [Synthese](#).

Location

The workshop will take place in San Jose, a coastal village within the spectacular area of the [Cabo de Gata National Park](#), a unique sub-desertic spot in Europe located on the south-east coast of Andalusia, Spain.

How to get there?

The easiest way to get to San Jose is by plane. San Jose is just a few miles from [Almeria International Airport](#) (LEI). A shuttle service between the airport and the workshop venue will be available upon request.

Important dates

28 Jan. 2011 – Deadline for submission of papers/long abstracts (1,000 words plus references)

25 Feb. 2011 – Notification of acceptance

19-21 May 2011 – Workshop

Registration

There is no registration fee, but places are limited. Registration can be done by contacting Paco Calvo <fjcalvo@um.es> directly, with an expression of interest.

Accommodation and outdoor activities

Participants are welcome to stay either at [Hotel Doña Pakyta](#), the venue of the workshop, or at [Cortijo El Sotillo](#), the point of departure for optional horse-riding excursions. Other outdoor activities include diving, kayaking, and boat trips off the coast, as well as relaxed walking along coastal tracks, for the less adventurous minded.

Organizing committee

Paco Calvo (Universidad de Murcia, Spain)

Angel Garcia (Universidad de Murcia, Spain)

Toni Gomila (Universitat de les Illes Balears, Spain)

John Symons (University of Texas, El Paso, US)

Contact

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