

Editorial

Special Issue of Social Cognitive and Affective Neuroscience (December, 2006) Genetic, Comparative and Cognitive Studies of Social Behavior

What are the psychological and neurological mechanisms behind social behavior? How does social cognition vary across phylogeny and across development? And how is it influenced by genetic variation? Collectively, these questions constitute much of the theme of this journal. They were the topic of a recent summer course at Cold Spring Harbor Laboratories¹, which highlighted the intense interest that these questions hold for basic researchers and clinicians alike. Indeed, so enthusiastic was the response to this novel course that a sequel will be offered next summer, the venue alternating to Britain this time under the auspices of the Medical Research Council, UK (www.mrc.ac.uk).

Selecting a subset of the topics covered at the meeting for this special issue proved no small feat. Our goal here was not to be so broad as to be all-inclusive, nor to be focused on a single topic. Rather, the intent was to give readers a flavor for the state-of-the-art in the field. We wanted to be both representative (hence the preponderance of studies in humans and studies involving neuroimaging), with a mix of reviews and original research articles, but also to include some articles on topics you may not have heard of. The resulting collection covers a variety of cognitive approaches to social behavior (including lesions, development and imaging); studies in humans, apes and mice; and reviews of diseases linked to certain genes—the roster comprising the title of this special issue.

We hope that the diversity of the articles will inspire young researchers to tackle social neuroscience with an equally diverse set of approaches. As the articles by Hauser, and by Molnar-Szakacs and Overy (two students who participated in the CSHL course) demonstrate, there is plenty of room for conceptual development and hypothesis framing. If you like philosophy, social neuroscience is a good field for you. Much of this can be linked directly to experiments, as the article by Raine and Yang, and also the one by Saxe *et al.* illustrate.

Those who like working with children can find a wealth of ideas for research on the development of the social brain in the article by Choudhury *et al.*; those who prefer chimpanzees can turn to the article by Parr and Waller. You might want to try and link these articles conceptually, and consider the extent to which ontogenetic and phylogenetic comparisons share something in common.

If your training is within neurobiology, you may be satisfied by more mechanistic approaches that focus on dissecting the processes and the neural circuits that give rise to social behavior. The neuroanatomically detailed story that can be told about mice (Shelley *et al.*) is complemented by the most popular way to investigate the human brain—hence there are three articles all using neuroimaging (Saxe *et al.*, Johnstone *et al.* and Delgado *et al.*).

Finally, your interests may be more applied, and diseases affecting social behavior offer tremendous opportunity for applying the tools of cognitive neuroscience to diagnosis and treatment. While nearly every psychiatric disease could be said to have an influence upon social behavior, the two discussed in this issue have an especially pronounced impact. The one with the largest number of investigators and funding is autism (Marco and Skuse; Neumann *et al.*), which is now subject to detailed dissections, aimed at elucidating the nature of the pathological component processes. It is also yielding to analysis of potential genetic influences (Marco and Skuse), and we are making even greater progress in our

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1 'The Biology of Social Cognition', held at the Banbury Center, July 2006.

understanding of Williams Syndrome (Tager-Flusberg *et al.*), which is due to a specific chromosomal anomaly.

We feel it would be premature to attempt any grand synthesis of the many different approaches and topics covered by this special issue. We have not, therefore, attempted such an ambitious task in this editorial. At this stage, the best way to begin putting ideas together is simply

to disseminate them, and to discuss them. We hope to see some of you at a summer course in the near future.

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