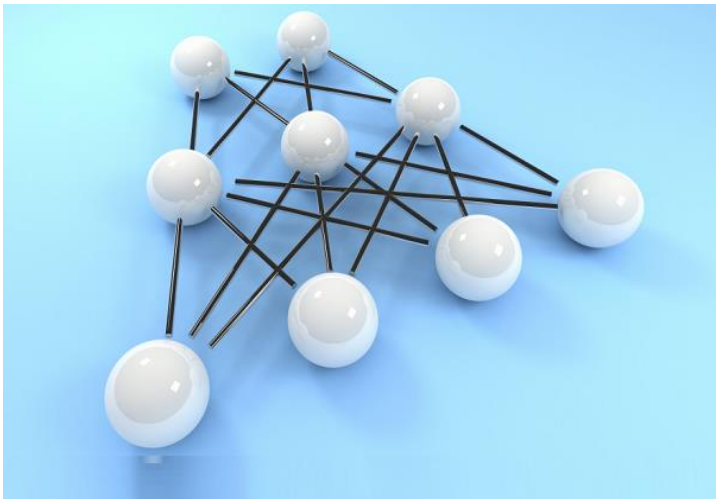
The Human Mind Project Seminar Series

MacroCognition in Humans & Insects

17:00-19:00 | 15 December 2015

Senate House, London



Should explanations in cognitive science always begin from individualist assumptions? Animals must process sources of information that help them to eat, drink, and reproduce. And natural selection typically increases the frequency of genes associated with individual fitness, as individuals with such genes tend to reproduce more frequently than those with rival alleles. So self-preservation plays an important role in most forms of biological cognition, including many of the forms of decision-making that sustain patterns of group behaviour. By making multiple decisions in parallel, flocks of birds, schools of fish, and swarms of insects can move together in highly coordinated ways, rapidly changing speed and direction on the basis of information that only some individuals know. But on biological grounds, however, we should be no more surprised by a group of animals that share a mind than we are by a group of neurons that share a mind. In both cases, thinking-together requires overcoming selective pressures that favour individual behavioural guidance.

In this talk, I argue that high degrees of relatedness can allow groups to function as unified information-processing systems, which are able to make adaptive decisions in ways that parallel individual decision-making. I claim that as average relatedness falls, animals become less cooperative, and collective behaviour becomes more amenable to individualistic explanations. However, humans are an exception to this rule; and by examining how we think and act together, I hope to show that we have found a novel way to overcome the evolutionary pressures that favour individual behavioural guidance.

Bryce Huebner is Associate Professor of Philosophy at Georgetown University. His recently published book, *Macrocognition* (Oxford University Press, 2014), develops a novel approach to distributed cognition and collective mentality.