



YCCSA Seminar Series Spring 2016

An interdisciplinary seminar series hosted by the York Centre for Complex System Analysis aimed at researchers from all disciplines

Animal Social Learning and the Evolution of Culture

Professor Kevin Laland

Centre for Biological Diversity, School of Biology, University of St Andrews

27 May 2016
Ron Cooke Hub, RCH/204 at 13:30

Both demographically and ecologically, humans are a remarkably successful species. This success is often attributed to our capacity for culture. But how did our species' extraordinary cultural capabilities evolve from their roots in animal social learning and tradition? I will provide a provisional answer. After characterizing contemporary research into animal social learning, I will describe the findings of an international competition (the 'social learning strategies tournament') that we organized to investigate the best way to learn. I will suggest that the tournament sheds light on why copying is widespread in nature, and why humans happen to be so good at it. I will go on to describe some other theoretical and experimental projects suggesting feedback mechanisms that may have been instrumental to the evolution of culture. These include comparative statistical analyses across primates that revealed that innovation and social learning frequencies co-vary positively with relative brain size, suggesting that these abilities were instrumental in driving the evolution of the large primate brain, a mathematical model of the evolution of teaching, and an experimental study of the cognitive underpinnings of cumulative culture, in children, chimpanzees and capuchin monkeys.

The seminar includes a refreshment break to fuel interdisciplinary discussion

***Ron Cooke Hub is on Heslington East Campus – accessible by free bus services
Nos. 66 and 44 running at frequent intervals from Heslington West.
The YCCSA Seminar room is on the second floor***