

Human Sciences Seminar #5

Osaka University Graduate School of Human Sciences  
Center for Collaborative Future Creation

# THE EVOLUTION OF COORDINATION



**Date/time: December 5th (Mon) 16 : 30~**

**Location: Osaka University Graduate School of Human Sciences**

**Learning Commons (North Building next to Library Room)**

**Presenter: Sarah Brosnan**

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Humans routinely confront situations that require coordination between individuals, from mundane activities such as planning where to go for dinner to incredibly complicated activities, such as international agreements. How did this ability arise, and what prevents success in those situations in which it breaks down? To understand how this capability has evolved, my lab uses the methodology of experimental economics to address these questions in a cross-species fashion. Experimental economics is an ideal mechanism for this approach, as it is a well-developed methodology for distilling complex decision-making in to a series of simple decision choices, allowing these decisions to be compared across species and contexts. We have used this approach to investigate coordination and anti-coordination in New World monkeys, Old World monkeys, and great apes, including humans, using identical methodologies. We find that there are remarkable continuities of outcome across the primates, including humans; all species are able to coordinate and, to our surprise, in at least some circumstances, all species were able to find the Nash Equilibrium in an anti-coordination game. On the other hand, there are also differences in outcomes across the primates, and studies using simulated opponents indicate that even when the same outcome is reached, there are important differences in the mechanisms each species uses to reach these outcomes. I consider both the similarities and differences and what these can tell us about the evolution of coordination across the primates.

**Organized by: Osaka University Graduate School of Human Sciences  
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**Contact to RSVP or for more information: [mirai-kyoso@hus.osaka-u.ac.jp](mailto:mirai-kyoso@hus.osaka-u.ac.jp)**