Research from a variety of scientific backgrounds comes together in the field of Comparative Cognition

2015-05-1

By Queen’s Psychology

Comparative Cognition is a highly interdisciplinary field that arose from a synthesis of evolutionary biology and experimental psychology. In its modern form, researchers from a variety of scientific backgrounds (e.g. neuroscience, behavioral ecology, cognitive and developmental psychology) come together with the common goal of understanding the mechanisms and function of cognition.

Over the past 15 years, Drs. Cella Olmstead and Valerie Kuhlmeier have taught both undergraduate and graduate courses that covered the subject matter of comparative cognition. Like many instructors, they put together course material that included scientific articles, chapters in other textbooks, and their own writings as an attempt to represent the evolving field of comparative cognition. This was not ideal as the presentation of material from different sources is uneven, and undergraduate students often have difficulty conceptualizing the fundamentals of a discipline without the framework provided by a solid textbook. They realized that their experience was not unique when they spoke to colleagues teaching similar courses at other universities. So, they began a collaboration that has resulted in a new textbook recently published by Cambridge University Press.

With this book, Olmstead and Kuhlmeier aim to merge classic studies and contemporary research to give students the full picture of the evolving field of comparative cognition. Engaging students in the discipline from its roots in animal learning and evolutionary biology through to current research, the chapters cover both controlled laboratory and comparative cross-species studies in the natural environment. This approach provides students with complementary ethological and neurobiological perspectives on cognition.

At Queen's, the textbook will be used in a newly-developed second-year course taught both on campus and online. The latter will be part of the Ontario Online Initiative, meaning that university students from across Ontario will have access to the course. Additionally, two lab courses for third-year students are being developed.

Olmstead and Kuhlmeier recommend that anyone who is interested in comparative cognition take a look at their posts on Twitter. New research findings from this exciting field are posted weekly, if not daily!