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USING OBSERVATIONAL DATA TO STUDY COGNITION: EXAMPLES FROM ELEPHANTS (*LOXODONTA AFRICANA*) AND PRIMATES.

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Some topics within animal cognition cannot yet be studied satisfactorily with laboratory experiments alone, but carefully measured observations from the field can be employed as a best alternative to build and test theories. In this introduction to the symposium, we shall outline the ways in which observation and analysis of naturally occurring behaviours can contribute to our understanding of animal cognition. We make reference to observations of African savannah elephants (Loxodonta africana) – a species where experimental study is not often feasible - made by research personal of the Amboseli Elephant Research Project. This research project has been observing the same population of elephants within the Amboseli ecosystem of southern Kenya for over 35 years, and has identified over 2000 individual elephants. This database is comparable to that of several long-term primate research projects, consisting of focal-sample, behaviour-sample, and ad-libitum observations, coupled with detailed demographic records. This observational data has provided insight into the social-behaviour and cognitive skills of free-ranging elephants. Here we shall particularly discuss how the data have contributed to our understanding of the empathic abilities and socio-sexual behaviour of African elephants. We shall close by highlighting the parallels and differences in what we have learned about primate cognition from similar observational studies of free-ranging animals.

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