
Best-behaved ethology? Behavioural ecology and the modern synthesis

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Abstract

Although 'classical' ethologists advocated an evolutionary approach to animal behaviour, most of them actually failed to incorporate new advances in population genetics and evolution into the study of animal behaviour during the sixties. For instance, one important step during the consolidation phase of the modern synthesis was the determination of appropriate levels of selection, resulting in the progressive predominance of gene-centred views. Still, reference to group selection persisted among ethologists, long after the concept was abandoned by most evolutionary biologists. Partly in reaction to this, the development of behavioural ecology was clearly an attempt to relocate the study of animal behaviour within the framework of contemporary evolutionary biology. The attempt was particularly successful, as empirical support for key concepts in modern evolutionary biology, such as, for instance, evolutionarily stable strategies, extended phenotype, optimization, selfish gene, and sexual selection, largely comes from the behavioural ecology literature. Recent developments in behavioural ecology suggest that the study of animal behaviour will continue in the future to provide both empirical support and challenges for evolutionary theory.

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