

AN INTRODUCTION TO ANIMAL BEHAVIOUR

Sixth Edition

Wolves excitedly greet each other as members of the pack come together; a bumble bee uses its long tongue to reach the nectar at the base of a foxglove flower; a peregrine falcon stoops at high speed to strike a pigeon flying below; young cheetahs rest quietly together, very close to sleep.

Now in full colour, this revised and updated edition of Manning and Dawkins' classic text provides a beautifully written introduction to the fundamentals of animal behaviour. Tinbergen's four questions of causation, evolution, development and function form the fundamental framework of the text, illustrated with fascinating examples of complex behavioural mechanisms. The authors provide accounts of all levels of behaviour from the nerve cell to that of the population. The strengths of *An Introduction to Animal Behaviour* as a textbook include its clear explanations and concise, readable text, and the enthusiasm of the authors for their subject.

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University of Edinburgh

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CONTENTS

Preface page ix

1 Introduction 1

- Questions about animal behaviour 5
- The escaping cockroach 7
- The courtship of the sage grouse 11
- Units of the nervous system 16
- Reflexes and more complex behaviour 20
- Diversity and unity in the study of behaviour 30
- Summary 31

2 The development of behaviour 33

- Young animals grow up 34
- Instinct and learning in their biological setting 40
- The characteristics of instinct and learning 45
- Genetics and behaviour 49
- Development and changes to the nervous system 57
- Hormones and early development 62
- Early experience and the diversity of parental behaviour 68
- Play 78
- Imprinting 84
- Bird song development 94
- Conclusions 106
- Summary 106

3 Stimuli and communication 109

- What stimuli are and how they act 111
- Diverse sensory capacities 114

vi Contents

The problem of pattern recognition	126
Sign stimuli (key features)	128
'Supernormal' stimuli	130
Neuroethological basis of sign stimuli	135
Other solutions for pattern recognition: generalized feature detection	139
Communication	144
What is communication?	145
Animal signals as effective stimuli	150
Honesty and deception in animal signalling	159
The honeybee dance	164
The calls of vervet monkeys	173
Summary	177

4 Decision-making and motivation 179

Decision-making on different time scales	182
Decision-making and 'motivation'	193
Measuring motivation	193
Is motivation specific or general?	199
Goals as decision points	202
Homeostasis and negative feedback	205
Competition between motivations	209
Inhibition/disinhibition	211
Decision-making with incomplete information: the role of signals	213
Conflict and 'abnormal' behaviour	217
The physiology of decision-making	220
Hormones and sequences of behaviour	227
Conflict and physiological stress	232
Decision-making, motivation and animal welfare	233
Conclusions	236
Summary	237

5 Learning and memory 239

Learning as part of adaptation	239
Sensitization and habituation	242
Associative learning	246
Specialized types of learning ability	257
What do animals actually learn?	262
Are there higher forms of learning in animals?	264
The comparative study of learning	268
Social learning and culture	272
The nature of animal minds	276

The nature of memory	294
Summary	298
6 Evolution	301
The adaptiveness of behaviour	302
Genes and behavioural evolution	310
Kin selection and inclusive fitness	316
Evolutionarily stable strategies	328
Sex and sexual selection	336
Species isolation and species selection	345
Tinbergen's fourth question: the phylogeny of behaviour	348
Summary	353
7 Social organization	355
The individual in the crowd	355
Advantages of grouping	358
Diverse social groups	364
Eusociality: division into castes	364
Territory in the social organization of vertebrates	369
Mating systems and social organization	373
Dominance in social systems	378
Diverse mammalian social behaviour	381
Primate social organization	388
Summary	403
<i>References</i>	405
<i>Figure credits</i>	435
<i>Index</i>	442

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PREFACE

It is 14 years since the last edition and the science or sciences of animal behaviour have progressed enormously. Topics which justified only a brief mention in an introductory text then, for example sperm competition as a factor in mating systems, have prospered to require textbooks of their own. How then to approach a new edition which cannot be allowed to become significantly larger.

It is our conviction that an introduction to the whole field, or at least a substantial part of it, remains as important as ever. Discussing new areas of research is best done from a firm basis of the basic concepts and for us these are still embodied in Niko Tinbergen's 1963 'Four Questions for Ethology' – function, evolution, causation and development. So the plan of our book remains essentially that of the other editions. There has been some extensive rewriting and we have tried to give good coverage to those areas where there have been important advances, notably in the evolution of behaviour and its development. We continue to give extensive references so that readers can easily get into the literature of areas that catch their interest. There is a great deal of new literature to be explored but we have never cited new work unless it really adds something. Often concepts are best illustrated by some of the now classical papers.

This edition benefits enormously from the encouragement we have had from Cambridge University Press to illustrate more widely and, in particular, to use colour photographs. Animals behaving provide stunning images and we are delighted with many of the new figures here. It remains to acknowledge the great help and support we have had from Martin Griffiths – it was he who first persuaded us to undertake a new edition. His team at CUP have helped us at every stage and it has been a pleasure to work with them.

*Aubrey Manning
Marian Stamp Dawkins*

