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Details of Book:

Title: Perspectives on Animal Behavior
Date/Edition: 2001/second edition
Author(s): J. Goodenough, B. McGuire and R.A. Wallace
Publisher/Distributor: J. Wiley and Sons Inc, New York
Supplier(s): Baffins Lane, Chichester, West Sussex, PO19 1UD, UK
Price: £27.50
ISBN: 0-471-29502-7
Description: Hardback textbook

Further Information:

Intended audience level (e.g. A Level, undergraduate, access): undergraduate

Area of application (check all those that apply):

- | | |
|---|--|
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Generic Teaching & Learning |
| <input checked="" type="checkbox"/> Animal Science & Management | <input checked="" type="checkbox"/> Other (Please specify) |
| <input type="checkbox"/> Aquaculture & Management | Psychology, Ethology |
| <input type="checkbox"/> Crop & Grassland Science & Management | |
| <input type="checkbox"/> Food Science & Technology | |
| <input type="checkbox"/> Forestry | |
| <input type="checkbox"/> Horticulture | |
| <input type="checkbox"/> Soil Science & Management | |
| <input type="checkbox"/> Anatomy & Physiology | |
| <input type="checkbox"/> Biochemistry | |
| <input type="checkbox"/> Bioinformatics | |
| <input type="checkbox"/> Botany | |
| <input type="checkbox"/> Cellular & Molecular Biology | |
| <input type="checkbox"/> Ecology | |
| <input type="checkbox"/> Environmental Science | |
| <input type="checkbox"/> Genetics | |
| <input type="checkbox"/> Microbiology | |
| <input type="checkbox"/> Pharmacology | |
| <input type="checkbox"/> Systematics | |
| <input checked="" type="checkbox"/> Zoology | |
| <input type="checkbox"/> Medicine | |

Summary:

Academic Content:	<input type="checkbox"/> Poor	<input type="checkbox"/> Below Average	<input type="checkbox"/> Average	<input checked="" type="checkbox"/> Above Average
Usefulness to student:	<input type="checkbox"/> Poor	<input type="checkbox"/> Below Average	<input type="checkbox"/> Average	<input checked="" type="checkbox"/> Above Average
Usefulness to teacher:	<input type="checkbox"/> Poor	<input type="checkbox"/> Below Average	<input checked="" type="checkbox"/> Average	<input type="checkbox"/> Above Average
Meets objectives:	<input type="checkbox"/> Poor	<input type="checkbox"/> Below Average	<input type="checkbox"/> Average	<input checked="" type="checkbox"/> Above Average
Accuracy:	<input type="checkbox"/> Poor	<input type="checkbox"/> Below Average	<input checked="" type="checkbox"/> Average	<input type="checkbox"/> Above Average

Review:

This is the second edition of a US volume being exclusively the work of Judith Goodenough. The content is clearly an improvement on the first edition. It contains additional topical material as well as combining sections of the first edition in a more functionally useful way. The 542 pages (with numerous black and white photographs and diagrams) includes material wide ranging enough to be employed in teaching specialist aspects of animal psychology (dealing with all the required mechanistic underpinnings of physiological psychology and acquired or learned behaviours), behaviour within biology degrees (ethology and behavioural ecology) as well as combinations of the two approaches (as seen in applied courses and behaviour at introductory levels of degrees).

The 'Introduction' (Chapter 1) deals with Tinbergen's four questions about animal behaviour and hypothesis testing. Part 1 (Approaches to the Study of Animal Behavior) provides a useful historical perspective as well as illustrating the diversity of the behavioural sciences. Chapter 2 'History of the Study of Animal Behavior' looks at classical ethology, comparative psychology, the nature/nurture debate and sociobiology. Chapter 3 'Genetic Analysis of Behavior' deals with relationships between genes and behaviour including modern use of genetic engineering. Chapter 4 'Natural Selection and Ecological Analysis of Behavior' introduces evolution and evolutionarily stable strategies. Chapter 5 'Learning' ranges from habituation to complex animal cognition. Chapters 6 and 7 are respectively concerned with the involvement of neural and endocrine factors in behaviour. Chapter 8 'Development of Behavior' looks at the roles of genes and environment in bird song, the concept of critical periods and developmental homeostasis.

Part 2 (Behavior of Individual Surviving in Environment) has Chapter 9 'Biological Clocks' and a new Chapter 10 on 'Mechanisms of Orientation'. Chapter 11 'The Ecology and Evolution of Spatial Distribution' includes sections on natal dispersal, territoriality and migration. Chapter 12 'Foraging' ranges from filter feeding to hunting for prey. Chapter 13 'Antipredator Behavior' conversely looks at devices from crypsis to group defense that reduce the probability of an animal becoming prey. Chapters 14 and 15, respectively deal with 'Sexual Selection' and 'Parental Care and Mating Systems'.

Part 3 (Behavior of Groups- Social Behavior) has Chapter 16 'Sociality, Conflict and Resolution' dealing with topics including the now mandatory game theory. Chapter 17 'Cooperation and Altruism' presents a useful range of hypotheses and detailed examples. Chapters 18 and 19 are both concerned with maintaining group cohesion, the former with description and functions of communication and contact and the latter with the evolution of communication.

There is an Appendix on 'Magnetoreception' that deals with electroreceptors, magnetite deposits etc that seems out of place. If the existence of this sense is in deed now accepted, it would be better to include the material in Chapters 6 or 10.

The volume is in essence, the only substantial, modern, dual-purpose book on the behavioural sciences. It has the standard strengths of mass-produced US undergraduate texts of being well-written and excellent value for money (it could serve several modules at several levels- if academics do not insist on a specialist volume for each behavioural module). The text also has some weaknesses for the UK market. The use of US spelling adds to the writing difficulties of students and the understandable use of US examples introduces organisms with which students will often not be immediately familiar. The format (approximately 28.5cm x 22 cm) appears standard for the current generation of mass-produced US texts but I was happier with the smaller-paged (but fatter) format of the first edition. Most undergraduates do not welcome having to carry around texts that cannot be easily dropped into a rucksack!