

Brain and behaviour are intrinsically linked. Animals demonstrate a huge and complex repertoire of behaviours, so how can specific behaviours be mapped onto the complicated neural circuits of the brain?

Highlighting the extraordinary advances that have been made in the field of behavioural neuroscience over recent decades, this book examines how behaviours can be understood in terms of their neural mechanisms. Each chapter outlines the components of a particular behaviour, discussing laboratory techniques, the key brain structures involved, and the underpinning cellular and molecular mechanisms. Commins covers a range of topics including learning in a simple invertebrate, fear conditioning, taste aversion, sound localization, and echolocation in bats, as well as more complex behaviours, such as language development, spatial navigation and circadian rhythms.

Demonstrating key processes through clear, step-by-step explanations and numerous illustrations, this will be valuable reading for students of zoology, animal behaviour, psychology, and neuroscience.

Seán Commins is a Senior Lecturer in the Department of Psychology at Maynooth University, Ireland. His research focuses on the biological basis of learning and memory, spatial navigation and the impact of stroke on cognition. Dr Commins has published extensively and has received numerous awards in recognition of his research.

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