## Contents

|    | Contributors<br>Preface                                   | vii<br>ix |
|----|---|-----------|
| I  | Introduction  |           |
| 1  | Levels and Processes Patrick Bateson                      | 3         |
| H  | The development of behaviour                              |           |
| 2  | Are there principles of behavioural development? Patrick  |           |
|    | Bateson   | 19        |
| 3  | Differences in behavioural development in closely related |           |
|    | species: birdsong Peter Marler                            | 41        |
|    | Commentary 1 Robert A. Hinde                              | 71        |
| II | Neural and endocrine aspects of behaviour                 |           |
| 4  | Analytical ethology and synthetic neuroscience John       |           |
|    | C. Fentress   | 77        |
| 5  | orional running and orional miles garde and original      |           |
|    | of filial imprinting Gabriel Horn                         | 121       |
| 6  | How does the environment influence the behavioural action |           |
|    | of hormones? J. B. Hutchison                              | 149       |
| 7  | Testosterone, attention and memory R. J. Andrew           | 171       |
| 8  | A psychobiological approach to maternal behaviour among   |           |
|    | the primates Jay S. Rosenblatt                            | 191       |
|    | Commentary 2 Robert A. Hinde                              | 223       |
| V  | Social organisation                                       |           |
| 9  | The evolution of sex differences and the consequences of  |           |
|    | polygyny in mammals T. H. Clutton-Brock                   | 229       |
| 10 | What can we say about social structure? Thelma E. Rowell  | 255       |

## Contents

| On declaring commitment to a partner M. J. A. Simpson                                  | 271  |
|--|--|
| Commentary 3 Robert A. Hinde   | 295  |
| Human behaviour  |  |
| Ethological light on psychoanalytical problems John Bowlby                             | 301  |
| <u> </u>   | 315  |
| A fresh look at 'maternal deprivation' Michael Rutter                                  | 331  |
| Hinde's work for developmental psychology Judy Dunn                                    | 375  |
|  | 389  |
| Commentary 4 Robert A. Hinde   | 411  |
| Aggression and war   |  |
| An evolutionary perspective on human aggression David  A. Hamburg                      | 419  |
| Commentary 5 Robert A. Hinde   | 459  |
| Memoirs  |  |
| Some personal remarks Niko Tinbergen   | 463  |
| Robert Hinde in Africa Jane Goodall  | 467  |
| Commentary 6 Robert A. Hinde   | 471  |
| Appendix 1 Robert Hinde's Career  Appendix 2 The Sub Department of Animal Rehaviour at | 475  |
| = =  | 479  |
| - ·  | 481  |
|  | Human behaviour Ethological light on psychoanalytical problems John Bowlby Temperament and attachment: An eclectic approach Joan Stevenson-Hinde A fresh look at 'maternal deprivation' Michael Rutter Relationships and behaviour: the significance of Robert Hinde's work for developmental psychology Judy Dunn The individual and the environment in human behavioural development Marian Radke-Yarrow Commentary 4 Robert A. Hinde  Aggression and war An evolutionary perspective on human aggression David A. Hamburg Commentary 5 Robert A. Hinde  Memoirs Some personal remarks Niko Tinbergen Robert Hinde in Africa Jane Goodall Commentary 6 Robert A. Hinde |