Professor John Maynard Smith has written an account of a new way of thinking about evolution which has been developed in the last ten years. The theory of games, first developed to analyse economic behaviour, is modified so that it can be applied to evolving populations. John Maynard Smith's concept of an evolutionarily stable strategy is relevent whenever the best thing for an animal or plant to do depends on what others are doing. The theory leads to testable predictions about the evolution of behaviour, of sex and genetic systems, and of growth and life history patterns. This book contains the first full account of the theory, and of the data relevant to it.

The account is aimed at senior undergraduate and graduate students, teachers and research workers in animal behaviour, population genetics and evolutionary biology. The book will also be of interest to mathematicians and game theorists; the mathematics has been largely confined to appendixes so that the main text may be easily followed by biologists.

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