The MIT encyclopedia of the cognitive sciences edited by R A Wilson, F C Keil; MIT Press, Cambridge, MA, 1999, 964 pages, $149.95 (£90.95) ISBN 0 262 23200 6

In the forty or so years since its inception, cognitive science has grown from a vague notion entertained by a few pioneering researchers into an established scientific community with its own journals, conferences and degree courses. This period has seen a great many theoretical and methodological developments, and not a few disputes and revolutions (or pseudo-revolutions, depending on your point of view). As a consequence, the various research activities which go under the term cognitive science are more vigorous and varied now than at any other time.

The unique nature of the cognitive science project—the attempt to establish a dialogue between such diverse disciplines as philosophy, psychology, artificial intelligence, linguistics, neuroscience, and anthropology—has engendered a continuing debate as to whether these disciplines actually share any common properties (and, if so, what they are), or whether they are simply united in their object of enquiry. Whether there is a set of aims and assumptions—what Von Eckardt (1993) has called "a framework of shared commitments"—that define a single cognitive science, or just a number of individual *cognitive sciences* with their own research agendas and methodological approaches, the goal of increasing interdisciplinary communication and understanding is universally applauded. *The MIT Encyclopedia of the Cognitive Sciences* (MITECS) is the most recent and ambitious attempt to achieve this goal.

The encyclopedia comprises two sections; the first consisting of six introductory essays, the second containing 471 articles. The essays provide an overview of the six core cognitive science disciplines listed above. Written by leading figures in the field, each introduction outlines the main issues and approaches, providing a broad context for the articles most relevant to the field and links to those relating to other disciplines. The essays typically combine a brief account of the historical development of the field with a concise but informative description of the main characters and concepts. As such, they provide a useful structure for the articles and are therefore a good place to start for anyone approaching a discipline for the first time.

The articles form the main part of the encyclopedia and, as befits such a multidisciplinary work, their scope is impressive, addressing topics ranging from "Hume" to "Human–Computer interaction"; "Magic and superstition" to "Magnetic resonance imaging". The articles are roughly evenly distributed between the six disciplines and cover the principal issues, personalities and areas of research. As well as the more familiar subjects, however, there are also some unexpected gems, including Samuel Keyser's article "Meter and poetry" (pages 543–545), which discusses the various ways of measuring lines in the poetry of different cultures, and Steven Mithen's article "Cognitive archaeology" (pages 122–123), outlining different approaches to the study of the belief systems and thought processes of past societies. The calibre of the contributors is high with most of the articles being written by the leading authorities in the field. The articles are concise but detailed, with numerous internal cross-references and references to the wider cognitive science literature and, although many of the articles are technical in nature, most will be comprehensible to non-professional readers.

MITECS is available in both traditional book and CD-ROM formats and, in addition, free unlimited access to a searchable and updated online version of the encyclopedia is also available to those who obtain the book or CD-ROM. The article abstracts and references are generally available, however, at the MITECS website (`http://cognet.mit.edu/MITECS/`).

In conclusion, MITECS is an impressive work. The wide range of topics covered together with the extensive references make this a valuable resource for both students and professional cognitive scientists alike. The structure of the book encourages further browsing, however, so be prepared to spend at least an hour on each session because once you start reading it is very difficult to stop. Unfortunately, the cost of MITECS will put it out of reach of most students, although it should be on the acquisition list of every university library.

MITECS was created to embody and reflect the interdisciplinary nature of cognitive science, and in so doing it provides a valuable service in presenting a snapshot of the state of the cognitive sciences at the beginning of the 21st century. However, it is possible that the encyclopedia may provide an even greater service to the cognitive science community by actually facilitating mutual understanding and dialogue between the disciplines. If it succeeds in this goal, then it is a significant work indeed.

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Reference
Von Eckardt B, 1993 *What is Cognitive Science?* (Cambridge, MA: MIT Press)