

textual reminders and the recall of adages" (p. 27). These "adages" capture in a neat saying the point of the story. They are in effect macros representing a particular goals-events interaction. But it is unclear whether recognition of the appropriate adage (e.g., "Too many cooks spoil the broth") triggers the setting up of a pattern of abstract goals and events against which to match the events of the story, or vice-versa. If the former, one wonders how the appropriate adage is picked out in the first place. If the latter, then the use of adages would seem to be no more than a gimmick, or more charitably an initially interesting but quickly tiresome, expository device. The question of just how the more intricate details of the stories are to be understood is more pressing. On the other hand, as part of a cognitive theory of story understanding, the idea of relating stories with similar structures is probably right, though there is also the important point that stories are only interesting insofar as they take an unexpected turn, as Dyer correctly notes: "It is the unusual and unexpected events, including the mistakes and failures of the characters which often make a story memorable. By their very nature, such events cannot be predicted in a top-down manner" (p. 17).

As well as TAUs, the discussion of which continues for an excessive 75 pages, Dyer introduces the notion of AFFECTs, which are knowledge structures relating the emotional reactions of participants. These are important in indicating which TAU is present, and in answering questions about the narrative.

The second part of this book concerns the control, coordination, and interaction of various processes, viz., parsing for comprehension, retrieval for question answering, and memory modification in both. Dyer's claim is that these interactions are a key element of the integrated narrative comprehension system, one of whose features is the ability to understand and answer questions without parsing them fully or even completely understanding them. The system, called BORIS, uses "demons", a type of production system similar to, but more general than, Riesbeck and Schank's "requests", which undertake a wide variety of tasks involving various types of knowledge structure. The knowledge structures used by BORIS are firmly founded in the Yale tradition, a feature that extends in Part III to the use of "I-links" (goal-plan-event dependencies not unlike those discussed in Wilensky's book), MOPs (interconnectable script-like structures which will be familiar to followers of the Yale School), and so on.

The final part of the book, not including a number of appendices, contains a highly detailed worked example which will be of great interest to anyone thinking of simulating the model, and which is of value in that it brings together and focuses the preceding discussion, as well as clarifying some peripheral questions, especially

concerning the basic parsing strategies used. The book ends with a retro- and prospective view of the general approach, highlighting some of the theoretical discoveries that arose from the computer implementation, and looking forward to future work in the field.

As mentioned above, Dyer's book is long and thorough: while this is an advantage for readers who wish to immerse themselves in the model and get an exhaustive view of it, for the more casual reader it is a difficult book to get a lot out of despite the author's guide to "skimming". In some respects it is more overtly relevant to Computational Linguistics than Wilensky's book, especially in being more explicit about formalisms and fine detail, and in dealing with run-time questions: Wilensky only really underlines the relationship between planning and understanding in his final chapter, whereas the Dyer book makes this more explicit throughout.

Finally, one thing that both books are able to make quite clear even to the most optimistic reader is that the whole question of understanding and modelling actors' motives even in relatively banal stories is extremely complex, and worthy of all the attention it is given.

Harold Somers

Centre for Computational Linguistics
UMIST, PO Box 88
Manchester M60 1QD, England

BOOKS RECEIVED

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Erratum: The following book was incorrectly listed in issue 12(4); the author's name was inadvertently given as Dobbs.

Hobbs, James B.

[Lehigh University]

Homophones and Homographs: An American Dictionary
Jefferson, NC: McFarland, 1986, viii+264 pp
Hardbound, ISBN 0-89950-182-6, \$27

- Barton, G. Edward; Berwick, Robert Cregar; and Ristad, Eric Sven**
[Artificial Intelligence Laboratory, Massachusetts Institute of Technology]
Computational Complexity and Natural Language
(Series on computational models of cognition and perception)
Cambridge, MA: The MIT Press / Bradford Books, 1987, xii+335 pp.
Hardbound, ISBN 0-262-02266-4, \$24.95
- Boudreaux, J.C.; Hamill, Bruce W.; and Jernigan, Robert (editors)**
[National Bureau of Standards, The Johns Hopkins University, and Decision Resource Systems, respectively]
The Role of Language in Problem Solving 2: Edited Proceedings of the Johns Hopkins University Applied Physics Laboratory Second Symposium on the Role of Language in Problem Solving held in Laurel, Maryland, 2-4 April 1986
Amsterdam: North-Holland, 1987, xiii+471 pp
Hardbound, ISBN 0-444-70144-1, \$70.00 / Dfl 175.00
- Bramer, Max A. (editor)**
[School of Computing and Information Technology, Thames Polytechnic]
Research and Development in Expert Systems III: Proceedings of Expert Systems '86, the Sixth Annual Technical Conference of the British Computer Society Specialist Group on Expert Systems, Brighton, 15-18 December 1986
Cambridge: Cambridge University Press on behalf of the British Computer Society, 1987, vii+277 pp
Hardbound, ISBN 0-521-34154-X, \$39.50
- Devitt, Michael and Sterelny, Kim**
[Department of Traditional and Modern Philosophy, University of Sydney and Department of Philosophy, Australian National University]
Language and Reality: An Introduction to the Philosophy of Language
Cambridge, MA: The MIT Press, 1987, xii+274 pp.
Hardbound, ISBN 0-262-04089-1, \$25.00
Paperbound, ISBN 0-262-54046-0, \$12.50
- Giannesini, Francis; Kanoui, Henry; Pasero, Robert; and van Caneghem, Michel**
[Groupe intelligence artificielle, Université de Aix-Marseille]
Prolog
(International computer science series)
Wokingham, England: Addison-Wesley, 1986, xi+260pp
Paperback, ISBN 0-201-12911-6, \$24.95
- Hindley, J. Roger and Seldin, Jonathan P.**
[University College, Swansea; Concordia University]
Introduction to Combinators and λ -Calculus
(London Mathematical Society student texts 1)
Cambridge: Cambridge University Press, 1986, 360 pp.
Hardbound, ISBN 0-521-26896-6, \$49.50
Paperback, ISBN 0-521-31389-4, \$16.95
- Kearsley, Greg P. (editor)**
[Park Row Software]
Artificial Intelligence and Instruction: Applications and Methods
Reading, MA: Addison-Wesley, 1987, xiv+351 pp
Hardbound, ISBN 0-201-11654-5, \$29.95
- Kuno, Susumu**
[Harvard University]
Functional Syntax: Anaphora, Discourse and Empathy
Chicago: The University of Chicago Press, 1987, viii+320 pp.
Hardbound, ISBN 0-226-46200-5, \$49.00
Paperback, ISBN 0-226-46201-3, \$18.95
- Lakoff, George**
[Department of Linguistics, University of California, Berkeley]
Women, Fire, and Dangerous Things: What Categories Reveal about the Mind
Chicago: The University of Chicago Press, 1987, xvii+614 pp.
Hardbound, ISBN 0-226-46803-8, \$29.95
- Miller, George A. and Johnson Laird, Philip N.**
Language and Perception
Cambridge, MA: Belknap / Harvard University Press, 1976, viii+760 pp.
Hardbound, ISBN 0-674-50947-1, \$35.00
Paperback, ISBN 0-674-50948-X, \$12.50
- Morgan, James L.**
[Institute of Child Development, University of Minnesota]
From Simple Input to Complex Grammar
(The MIT Press series in learning, development, and cognitive change)
Cambridge, MA: The MIT Press, 1987, xiii+223 pp.
Hardbound, ISBN 0-262-13217-6, \$22.50
- O'Grady, William**
[Department of Linguistics, University of Calgary]
Principles of Grammar and Learning
Chicago: The University of Chicago Press, 1987, xiii+233 pp.
Hardbound, ISBN 0-226-62074-3, \$27.50
- Pinker, Steven**
[Department of Brain and Cognitive Sciences]
Language Learnability and Language Development
(Cognitive science series 7)
Cambridge, MA: Harvard University Press, 1984, xiii+435 pp.
Hardbound, ISBN 0-674-51054-2, \$29.50
Paperback, ISBN 0-674-51055-0, \$11.95

Reilly, Ronan G. (editor)

[Educational Research Centre, St Patrick's College,
Dublin]

Communication Failure in Dialogue and Discourse:

Detection and Repair Processes

Amsterdam: North-Holland, 1987, xi+404 pp.

Hardbound, ISBN 0-444-70112-5, \$59 / Dfl 175.00

Rogers, Jean B.

[University of Texas at Austin]

A Prolog Primer

Reading, MA: Addison-Wesley, 1986 (corrected reprinting), xii+223pp

Paperback, ISBN 0-201-06467-7, \$19.95

Shneiderman, Ben

[University of Maryland]

Designing the User Interface: Strategies for Effective Human-Computer Interaction

Reading, MA: Addison-Wesley, 1987, xv+448 pp.

Hardbound, ISBN 0-201-16505-8, \$29.95

Slade, Stephen

[Yale University]

The T Programming Language: A Dialect of Lisp

Englewood Cliffs, NJ: Prentice-Hall, 1987, xiv+425 pp.

Paperbound, ISBN 0-13-881905-X, \$21.33

Stillings, Neil A.; Feinstein, Mark H.; Garfield, Jay L.;

Rissland, Edwina L; Rosenbaum, David A.; Weisler,

Steven E.; and Baker-Ward, Lynne

[Hampshire College and University of Massachusetts,
Amherst]

Cognitive Science: An Introduction

Cambridge, MA: The MIT Press / Bradford Books,

1987, xvii+533 pp

Hardbound, ISBN 0-262-19257-8, \$25.00

Traub, Joseph F.; Grosz, Barbara J.; Lampson, Butler W.; and Nilsson, Nils J. (Editors)*Annual Review of Computer Science*

Volume 1, 1986

Palo Alto: Annual Reviews Inc, xiv+459 pp.

Hardbound, ISBN 0-8243-3201-6, ISSN 8756-7016,
\$39.00

[Includes a paper by Perrault and Grosz on natural language interfaces.]

van Benthem, Johan*A Manual of Intehsional Logic*

(CSLI lecture notes number 1)

Center for the Study of Language and Information, Stanford University, 1985, 74 pp

Distributed by the University of Chicago Press

Paper, no ISBN, order number 12210-7, \$8.95

Yngve, Victor H

[University of Chicago]

Linguistics as a Science

Bloomington, IN: Indiana University Press, 1986,

viii+120 pp.

Clothbound, ISBN 0-253-33439-X, \$25.00;

Paperbound, ISBN 0-253-20402-X, \$9.50