

The chapters in MTG are I. The philosophical underpinnings of the generative paradigm, II. The modules of a transformational-generative grammar - a preliminary overview, III. PS-rules, P-markers, and their interpretation, IV. The structure of lexical items, V. X-bar syntax, VI. The principles of binding, VII. The transformational component - some basic concepts, VIII. Transformational operations - move alpha, IX. Transformational operations - deletion of lexical material with semantic content, X. Constraints on transformations - the search for generalizations, XI. 0-roles, the 0-criterion, the theories of chains and case - and some related issues, XII. Logical form - selected topics, XIII. Other semantic rules - selected topics, XIV. Speech acts.

J has a couple of interesting chapters at the end, viz. XIII and XIV, in which he suggests formalization for some semantic and pragmatic notions that strictly fall outside of the domain of GB theory. In chapter XIII J deals with inherent semantic features and how they relate to componential analysis and selectional features and how they apply to subcategorization rules, thematic features, sense-relations such as synonymy, hyponymy and antonymy, compositional semantics and the notion of presupposition. In chapter XIV J applies some linguistic analysis to Speech Act theory.

For anyone thinking of attempting a full descriptive grammar of a language in the GB framework MTG gives some idea of how this might be done since all one normally gets in articles and even books on the subject is "grammar fragments."

References

- Chomsky, N. 1965. *Aspects of the Theory of Syntax*. Cambridge, Mass.: MIT Press.
- van Riemsdijk, H. and E. Williams. 1986. *Introduction to the Theory of Grammar*. Cambridge, Mass.: MIT Press.

Received 17 July 1991

The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason. By Mark Johnson. Chicago: The University of Chicago Press, 1989. xxxviii + 234 pp. US\$18.25.

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Mark Johnson presents us with an academic book on human reason. He is "concerned here with how real human beings reason and not with some ideal standard of reality."

In the early chapters of the book, Johnson demonstrates how people first learn to reason about the concrete physical world. We, through metaphor, apply the inference patterns we have learned in the physical realm into the abstract realm. For example, Johnson claims that the meanings of modal verbs such as *must*, *may*, and *can* are based on bodily experiences of forces and re-

straints. He argues that what we experience and learn in the physical world allows us to reason (and limits our ability to reason) in abstract matters. As a consequence, a person with experience in a wide variety of things may have a wider variety of inference patterns available to him to apply in new situations and problems. He may see a problem from a new perspective and find a better solution. (Or perhaps he will smell out the problem and brew up a good solution?)

Johnson's book is written to prove a point. He argues against "traditional" theories of cognition and cites the work of many researchers in support of his own views. Although dry and academic, the book is carefully written. The chapter titles themselves explain the progression of argumentation in the book: The Need for a Richer Account for Meaning and Reason; The Emergence of Meaning through Schematic Structure; Gestalt Structure as a Constraint on Meaning; Metaphorical Projections of Image Schemata; How Schemata Constrain Meaning, Understanding and Rationality; Toward a Theory of Imagination; On the Nature of Meaning; "All this and Realism, Too!"

As can be seen from the title of the sixth

chapter "Towards a Theory of Imagination," Mark Johnson's book takes one more step toward understanding how we think. The step is an important one. I look forward to future work in cognition based on this effort.

Received 11 October 1991

More than Cool Reason, A Field Guide to Poetic Metaphor. By George Lakoff and Mark Turner. Chicago: The University of Chicago Press, 1989. xii + 230 pp. cloth: US\$34.50, paper: US\$13.70.

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Lakoff and Turner have written an excellent book on metaphor. They claim that "traditional" approaches to the study of metaphor have not allowed students of language, especially poetry, to understand the nature of this powerful mechanism of language. Given a better understanding of metaphor, a student of poetry can begin to comprehend why a poet can instill wonder and insight using such ordinary words. Yet Lakoff and Turner's interest is not limited to simply understanding poetry. They believe that a proper understanding of metaphor can give insight into many facets