

## **What Insights Does Sign Language Research Have to Offer in Understanding Language, Cognition, and the Brain?**

Emmorey, K. (2002). *Language, Cognition and the Brain: Insights from Sign Language Research*. Mahwah, NJ: Lawrence Erlbaum Associates. 383 pages. Paperback. \$49.95.

This book brings together what has been learned about the relationships between human languages, cognition, and the brain through reviewing studies of signed languages and their Deaf users. The text claims to be written for the general reader, although there is much to recommend it for the more specific or advanced reader interested in the development, use, and insights from sign language research.

The author first attempts to “debunk” a number of common myths about sign languages and to inform the reader about the issues, terminology, and sign coding conventions that are to be encountered in successive chapters. The author then traces the emergence of sign languages as human language and focuses on the characteristics of developed and relatively well-documented sign languages (for example, American Sign Language), as well as an emerging sign language (Nicaraguan Sign Language).

The reader is then introduced to the use of space in signed languages and the interaction between spatial concepts, abstract conceptual structures, and linguistic expression. Issues of modality, the use of gesture, the use of “shouting” and of “whispering” in sign, and importantly, the parallels and differences between the acquisition processes of signed and spoken languages are discussed. The impact of sign language acquisition and use on human information processing and memory is also explored. Finally, evidence that experience with sign language enhances specific cognitive processes and informs our understanding of the relationship between language and thought is discussed. This section shows how far we have come from the early studies of Whorf (1941), Oleron (1953), and Furth (1961), with their inherent assumptions about the nature of “language” in studies of cognition by deaf people.

The last chapter examines the nature of hemispheric specialization with sign language acquisition and its use in related cognitive systems, as well as the implications of this for neural plasticity and brain organization. The author acknowledges, however, that this area of research is so active, due to the potential provided by current brain imaging techniques, that the material in the chapter may have a limited capacity to sum up the field.

In summary, the text moves from “myths” about signed languages to studies of their acquisition, structure, and use, to consideration of implications for human information processing and memory, and finally for brain structure and functioning. At all times the strongest connections are made between sign language research and the general conditions applying to human communication, language acquisition, and the relationship between language and thinking. As such, the book takes up a broad challenge but does so in manner that is comprehensively researched and documented and with a most readable and informative style.

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