

Dominiek, Sandra, Jan-Ola Östman, Jef Verschueren (eds) (2009). *Cognition and Pragmatics*. Amsterdam/Philadelphia: John Benjamins Publishing Company, 399 pp. EUR 39.00. ISBN: 978 902 720 780 7.

This excellent work is the third volume of *Handbook of Pragmatics Highlights*, a series which focuses “on the most salient topics in the field of pragmatics” (xv). This specific volume leads the reader into the manifold approaches to language and cognition, generally viewed as interacting capacities of the human mind.

The first chapter, an introduction to the book entitled “Perspectives on language and cognition,” by Dominiek Sandra, establishes some basic assumptions about these two key notions—language and cognition—, and succinctly presents previous research approaches in the fields of linguistics and psychology that led to cognitive-based proposals. A description of the content of the book closes this introduction and passes the baton to Steven Gillis, Walter Daelemans and Koenraad DeSmedt, with a chapter on “Artificial intelligence.” They introduce key notions and methods of artificial intelligence in general and of computational linguistics in particular, after a short historical note. The authors present the physical symbol system hypothesis (PSSH), which proposes the physical representation of mental processes. A summary of the main paradigms for knowledge representation follows, and a section on the main issues in computational linguistics related to semantics and pragmatics ends this contribution.

In a straightforward chapter entitled “Categorization,” Eleanor Rosch states the basic questions in categorisation research and presents a summary of its history, divided in four phases: the classical view; alternatives to this classical view, led by her own proposals on graded structures, prototypes and basic level; mathematical models and critiques of graded structure, and categories as theories. A hint of an emerging fifth phase is briefly shown. On the other hand, Michel Paradis’ contribution, “Cerebral division of labour in verbal communication,” begins by describing the deficits of pragmatic nature found in right-hemisphere damage (dyshyponoia) in comparison with left-hemisphere damage, and puts forward many unanswered questions. Some of the subsequent discussions revolve around key notions such as pragmatic inferences, the role of pragmatics in the interpretation of utterances, and verbal communication as language in context.

Ronald W. Langacker, founder of cognitive grammar, summarises the main tenets of his theory in the fifth chapter. It claims that grammar is “fully reducible to assemblies of symbolic structures” (78) and defines cognitive grammar as a pragmatically grounded theory of language. This chapter is followed by an introduction to “Cognitive science” by Seana

Coulson and Teenie Matlock. They point to the varied nature of research in cognitive science and present a brief history of contributing fields, including philosophy, artificial intelligence, psychology, linguistics and neuroscience. A succinct account of the main methods used in cognitive science is then presented: psychological experiments, naturalistic observation and ethnography, linguistic methodologies, eye tracking, neuroscience techniques and computational techniques. Some of the main issues at stake are discussed and, in a final short section, a relationship between cognitive science and pragmatics is established.

J. Cooper Cutting is the author of the seventh chapter, which addresses the processes of comprehension and production from a psycholinguistic point of view, focusing on three aspects: mental lexicons, syntactic processing, and mechanisms by which cooperation between speakers and listeners in communication is achieved. "Connectionism," by Ton Weijters and Antal van den Bosch, adopts a totally different approach and deals with connectionist modelling within natural language processing. The authors offer an overview of two types of network architectures: perception learning and self-organising feature maps. They also discuss the possibility of applying connectionist modelling to higher-level domains such as pragmatics.

Assuming that consciousness affects the shaping of language, Wallace Chafe discusses the properties and foci of consciousness as well as his notion of activation cost. On a different note, "Developmental psychology," by Susan M. Ervin-Tripp, presents a historical overview of the field of developmental psychology, provides a definition, and sketches the main research issues, as well as various approaches and methods of study. The last sections address many research issues to which pragmatics can contribute.

"Experimentation" is a thorough chapter by Dominiek Sandra that provides the basics of empirical research, and more specifically of experimental design, as opposed to theoretical studies. Special attention is paid to several frequently used statistical tests. The next chapter, by Steven Gillis and Dorit Ravid, focuses on the main controversies and methodologies in the multidisciplinary field of language acquisition. The notions of "bootstrapping" and variation are developed, and both quantitative and qualitative descriptions of early and later language development are summarised.

Elizabeth Mertz and Jonathan Yovel provide different conceptualisations of the term "metalinguage" in their chapter and link it to the notion of metalinguistic awareness. They discuss how these concepts have been used in linguistic/empirical studies, with a focus on linguistic ideology, as well as in cognitive, psycholinguistic and developmental approaches. The following chapter, by Roger Lindsay, debates whether perception can be modified by language, and studies the relationship between language and

perception from a cognitive point of view, stating that neuropsychological evidence suggests a functionally subdivided human information processing system.

"Psycholinguistics," by Dominiek Sandra, is an extensive and well-organised chapter that includes a first section with the basics of this discipline: historical overview, main aims, key theoretical frameworks, general methods and research techniques. The second part explores in greater detail four issues: visual word recognition, word spelling, speech perception and speech production. Finally, Ton Dijkstra is the author of "The multilingual lexicon", a chapter devoted to the multilingual processing system, and more specifically to the word recognition system in multilingual communication. The author advocates the existence of an integrated lexicon rather than different databases.

The sixteen chapters of the volume, each followed by a comprehensive bibliography, compose a clear introduction to some key notions in a riveting area where linguistic and psychological approaches converge. Although a linear reading is possible, it has its setbacks: chapters are organised alphabetically by title and, just to put an example, a general introduction to cognitive science, which includes two paragraphs on artificial intelligence, is found after a whole chapter on this specific topic. I think a thematic organisation would have proved more helpful although it must be admitted that a thematic revision that can guide the reader is already included in the introductory chapter. On the other hand, despite the emphasis on both cognition and pragmatics in the title, in some contributions a closer focus on pragmatics is missed. Finally, the extension and complexity of the chapters varies and they sometimes lack certain degree of unification.

All in all, regardless of these minor personal considerations, *Cognition and Pragmatics* is a monumental endeavour in the field of language and cognition. The editors state that the contributions to the volume can be viewed as encyclopaedic articles with the most relevant information but can also be used as teaching tools and as reading materials for a wide range of courses. I totally subscribe this opinion and invite you to use the volume according to your own purposes, be it to get a wide overview of the field or to focus on a specific sub-item. In this regard, although translation is not explicitly addressed in the book, translators and researchers in specialised translation will undoubtedly find a source of inspiration both on the cognitive-based theoretical proposals and on the empirical approaches to science which are clearly exposed in the volume.

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