Cienki, Alan and Cornelia Muller (eds) (2008). *Metaphor and Gesture*. Gesture Studies, 3. Amsterdam/Philadelphia: John Benjamins, pp. 307, €37 (Paperback). ISBN: 9789027228444.

his book is a collection of contributions focusing on the intersection of metaphor and gesture. It is divided into two parts: the first part, consisting of nine chapters and preceded by a short introduction, contains papers that were presented at the Eighth International Cognitive Linguistics Conference held in Logroño (Spain) in 2003; the second part comprises a series of eight shorter contributions in which key figures in the field of cognitive linguistics present their personal views and experience to predict the future of the marriage between metaphor and gesture.

In the opening chapter of the first part, Allan Cienki provides an overview of findings from the current research on metaphor and gesture, including a discussion of the implications and questions that the study of each brings to the other. This general approach makes it the chapter with probably the greatest appeal for readers with a background in Translation Studies. In the second chapter, Geneviève Calbris explores how metaphoric notions are rooted in non-metaphoric, physical actions, through a detailed look at a series of six interviews with the former French Prime Minister, Lionel Jospin, conducted by journalists. Calbris is concerned with how gestures translate abstract, symbolic meanings into concrete, perceivable representations by locating them on the physical axis. The author's conclusions give food for thought, but I wonder if it is possible to make generalisations about metaphorical gestures produced by only one speaker and in one single type of context.

The next three chapters present analyses of gesture in pedagogic contexts. Using data from a study of time-telling instruction, Robert F. Williams describes two important functions of gestures during instruction: (1) guiding mappings that link conceptual models with structures in the and (2) adding image-schematic structure conceptualisation. He concludes that these functions of gesture are apparent only when discourse is treated as multimodal and contextual. He also concludes that gesture mapping seems to be a particularly useful tool for instruction, a form of social interaction in which one participant overtly guides the conceptualisation of another. Rafael Núñez focuses on the study of gesture production in order to address the guestion of the nature of mathematics and its foundations. He shows how the study of the production of professional mathematicians characterising fundamental metaphorical contents which, while making the very mathematical ideas possible, are not captured by the standard wellaccepted formalism that is considered to "define" what mathematical concepts really are. Irene Mittelberg approaches the gestural sign from a cognitive-semiotic perspective, combining Peircean semiotics

conceptual metaphor theory. Her aim is to determine how speakers linguistically and gesturally represent linguistic units, grammatical categories, syntactic structures, as well as operations. Her corpus consists of videotaped academic discourse and gestures produced by four teachers of Linguistics during introductory courses. Her main conclusion is that iconicity and metaphor are not enough to account for the realisation of metaphors in gestures, which is why metonymy should also be taken into account.

The next three contributions build specifically on the study of gesture developed by the psychologist David McNeill. The first is authored by McNeill himself and examines what he calls "unexpected metaphors," i.e. those iconic gestures that are revealed to be metaphoric only when the function of the gesture is examined within the surrounding discourse, identifying their role in speech, thought, and discourse in order to uncover some of the functions that explain how and why they occur. A team of six is responsible for the second contribution. The Centre de Linguistique Appliquée, where they all seem to work, decided to analyse the verbal and bodily aspects of Jacques Derrida's discourse in a televised interview that took place in 2000. The aim was threefold: first, to use two conceptual tools developed by McNeill and his colleagues for their analysis (catchment and growth points); second, to confirm their relevance; and third, to enhance Tuite's schema of gesture production by integrating McNeill's concepts into his model. The last contribution, by Fey Parrill, takes up the case of a particular metaphoric gesture and assesses the extent to which its production form is constrained by a culturally established standard. Assessment is made via an experimental comparison between this gesture and an emblem. Parrill presents an experiment which explores two different hypotheses. His study does not provide a clear answer, as results show there is a high degree of variability among participants in what is considered acceptable for both gesture forms. These unexpected results produce a more complex picture of how convention shapes gesture, which, in turn, has implications for theories of language production.

In the final chapter of the first part of the book, Cornelia Müller points out that the study of metaphoric gesture highlights properties of metaphor, leading her to argue for a dynamic approach to metaphor as a cognitive activity. Her research consists of microanalyses of three verbo-gestural utterances, which show that metaphors are modality independent products of a general cognitive process, and that they are dynamic in several respects.

In the second part of the book, we find two different contributions by Ronald W. Langacker. In the first, he comments on how metaphoric gestures are relevant for cognitive linguistics and, in the second, he uses data from the field of neuroscience to explain why metaphoric gestures exist. Cultural anthropologist Naomi Quinn explains how much her previous research, based on discourse in marriage analysis, would have

benefited from videotaping the interviews she carried out, since a great deal of extra information could have been obtained from the gestures accompanying speech. Anders R. Hougaard and Gitte R. Hougaard discuss the implications of cognitive metaphor and gesture studies for Ethnomethodology and Conversation Analysis and *vice versa*. Sherman Wilcox emphasises the fact that, once the natural link between signs and gestures has been acknowledged, new horizons have opened up for researchers, thanks mainly to the new framework offered by cognitive linguistics. Paul Bouissac presents a critique from the perspective of semiotics, making a case for the use of neuroimaging techniques in the search for answers and solutions in the field of gesture metaphors. In the final chapter of this section, Raymond W. Gibbs reflects on some of the implications of the subject for psychology.

In sum, the aim of this book is to provide an overview of the current state of research on metaphor and gesture. Different research methods are presented together with a wide range of data-collecting methods, such as recordings of conversations or participants' narrations; televised broadcasts of interviews; and recordings of teachers at work in different academic settings. As far as methodological approaches to data analysis are concerned, those presented include statistical analysis, blending analysis, semiotic analysis, linguistic analysis, and types of hermeneutic analysis between the levels of spoken word and gesture. The volume thus provides a comprehensive description of the different ways in which metaphor and gesture can be researched. Although the contributions approach the subject from the perspective of different disciplines, all coincide in the fact that they work at a fairly abstract or theoretical level of understanding.

Presenting papers from the Eighth International Cognitive Linguistics Conference alongside invited contributions has resulted in a rather heterogeneous collection of contributions that is somewhat lacking in internal cohesion. Nevertheless, for those who are not acquainted with work that has been carried out to date on metaphor and gesture, this edition makes it a recognisable field of research and may well provide readers with ideas both on possible topics of research and research methodologies. For those who are conversant with research on either metaphor or gesture, this book will possibly provide useful insights on a familiar field presented from different points of view. An evident shortcoming, however, is its exclusive focus on gestures of the hands, although gesture can refer to any willful bodily movement. This may well reflect the reality of research on this topic and should be an incentive for researchers to explore metaphorical gesture behavior carried out with other parts of the body. Whilst attesting to a growing body of research on gesture, areas of interest which have so far been overlooked are also evidenced. I have noticed that most of the studies included in this volume have been carried out from a Western perspective, when little is known about research conducted in other academic cultures or from a cross-cultural perspective.

Speech and gesture should not be treated as distinct channels of communication since their interrelatedness has been proven. Researchers in disciplines in the Humanities and the Social Sciences, such as Translation Studies, Foreign Language Teaching, Discourse Analysis, Cross-cultural Studies and Contrastive Linguistics, should therefore take note and be encouraged to pursue this area of research in new directions. There are many lines of research within Translation Studies that could benefit from exploring the impact of new findings in metaphor and gesture and the new insights they can provide, for example, on audiovisual translation, and, in particular, audio description, literary translation or community interpreting, to name just a few.

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