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Section VII

Language acquisition, diversity, and change

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This section covers a diverse range of topics, each of which is a broad field of research in its own right. Nevertheless, the papers in this section are held together in an important respect. All of them illustrate an aspect of recent cognitive linguistic work on language and cognition, which can be summarised as the 'usage-based' perspective. This perspective highlights the importance of investigating linguistic knowledge from the viewpoint of the spatio-temporal reality of language. Given the fundamental place that language use is given in this approach, models of diversity and change become central elements of a theory of language.

Therefore, while the selection of papers in this section can certainly not do justice to the fields of language acquisition, diversity, and language change respectively, we hope that they can fulfil two functions. Firstly, the papers provide state of the art overviews of central aspects of these areas of research. Moreover, they do so from a cognitive linguistic perspective. Secondly, they together give an impression of the empirical and conceptual power of a usage-based approach to language and cognition.

This conceptual power consists, not least, in the challenge that usage-based approaches constitute for the development of theory in cognitive linguistics, and in the cognitive sciences more generally. Usage-based approaches can motivate a discussion on what we want the 'cognitive' in cognitive Linguistics to mean. Early work in cognitive linguistics was based on concepts imported from cognitive psychology, with its focus on mental representations (see Evans, Bergen, & Zinken, this volume). These concepts were predominantly constitutive of 'cognitivist' theorising in psychology, i.e., the view that cognition happens in a largely self-sufficient machinery inside the individual's head – a view that was itself strongly influenced by Chomsky's understanding of language. While the 'cognitivist' perspective has been highly contentious within cognitive psychology for a long time (see, e.g., Costall & Still, 1987), a view of cognition as a machinery in the individual head is implicit in much cognitive linguistic work, as has sometimes been criticised (see Sinha, 2005).

The essentialist view inherent in such a cognitivist perspective on language is directly addressed by William Croft in his chapter on 'Selection: An utterance-based evolutionary theory of language'. The essentialist view defines language as a system of abstract rules. These constitute the 'essence' of language that linguistics should identify. This essentialist definition is difficult to reconcile with the ever-changing nature of language. Croft discusses these problems and proposes to radically replace the distinction between an 'essence' and 'surface' manifestations of language by defining a language as the 'population' of actually occurring utterances. In his evolutionary model of language, the utterance is the fundamental unit of analysis, the 'replicator' of conceptual structure. By adopting such a radically usage-based approach to language, Croft integrates change as an integral part for a theory of language, as has been postulated by researchers of language change in the past (Keller, 1994). Croft's approach also encourages discussion of the representationalist view of meaning underlying much of cognitive semantics (see Evans, Bergen, & Zinken, this volume).

While Croft discusses the relation between language and conceptual development from the perspective of theoretical model-building, covering conceptual change on both the (individual) micro- and the (societal) macro-level, the other chapters in this section are dedicated to the relation between language as a social fact and individual conceptualisation.

In his chapter on 'Language and thought online: Cognitive consequences of linguistic relativity', Dan Slobin gives an overview of his research on thinking for speaking, and places it in a general framework for the study of Whorfian effects of language on cognition. The thinking-for-speaking framework, which has generated a substantial body of empirical work over the last 20 or so years (e.g., Strömqvist & Verhoeven, 1994), is a good example of an alternative to the 'cognitivist' perspective on language and cognition. The cognition that Slobin is interested in is not a detached process carried out beyond the (time-)constraints of the real world, but a process of managing attention and expectations that is part of a larger unit of analysis: situated action, more specifically, verbal behaviour. He shows that online conceptualisation is attuned to the semantic categories that a particular language makes available. Although studies of Whorfian effects focus on the evaluation of effects that linguistic categories might have on non-linguistic cognition (see Lucy, 1996), Slobin argues that thinking for speaking needs to be studied as the crucial process that brings such Whorfian effects about.

Whorfian effects in the classical sense of diversity in non-linguistic cognition that is correlated with diversity in semantic categories are addressed in Lera Boroditsky's chapter 'Does language shape thought? English and Mandarin speakers' conceptions of time'. Boroditsky presents a series of experiments that show such a correlation with respect to conventional figurative expressions used in English and in Mandarin for talking about temporal relations. While English speakers regularly talk about such relations using words that can also refer to horizontal spatial relations, Mandarin speakers also frequently use vertical spatial terms to talk about temporal relations. As Boroditsky shows, this difference in language is correlated with a differential performance of English and Mandarin speakers in reaction time experiments. This research underscores the (again) growing respectability of the view that the language 'data' learners are confronted with do actually play a role in the construction of conceptual categories (see Brown,

1958). The usage-based approach that is a common denominator of the chapters in this section might give this perspective additional scientific weight.

The argument that children actively construct semantic categories from the language they grow into is explicitly made by Melissa Bowerman and Soonja Choi in their chapter 'Space under construction: Language-specific spatial categorization in first language acquisition'. They provide a synthesis of their research into the acquisition of morphemes expressing spatial relations by Dutch and Korean children, in which they could show that children are sensitive from a very early age to the particular spatial relations that are relevant in their respective language. Furthermore, the errors that children make in overextending the meaning of such morphemes form patterns that systematically vary with the differences in meaning across languages. As Bowerman and Choi argue, these results show that children do a lot more in language acquisition than merely matching the 'labels' that language provides with the appropriate, fully-formed concepts.

The usage-based perspective implicit in this research on language acquisition is explicitly addressed by Michael Tomasello in his chapter, 'A usage-based approach to child language acquisition'. Tomasello synthesises some of his research on child language acquisition, focusing on the acquisition of syntactic categories. He argues that children construct such categories 'bottom-up', starting with local knowledge restricted to particular, frequent constructions ('verb islands'), and only gradually generalising across similar instances to arrive at more abstract categories, such as 'subject' or 'object' (see also Croft's chapter on 'Radical Construction Grammar' in section V). This is a perspective that is at odds with the one that has long been dominant in research on language acquisition, according to which many abstract schemas or 'rules' are already in place when children start learning language (cf. Pinker, 1989). Again, the usage-based perspective here shows its potential as a challenge to cognitivist treatments of language and cognition.

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