Svenja Adolphs and **Ronald Carter**. *Spoken corpus linguistics. From mono-modal to multimodal*. New York and London: Routledge. 2013. 206 pp. ISBN 978-0-415-88829-5. Reviewed by **Stefan Diemer**, Saarland University.

How should spoken discourse corpora be analysed, and what happens when you move beyond the text? Svenja Adolphs and Ronald Carter state that

> [d]escribing spoken language use is not simply a matter of collecting spoken data; it is, crucially, a matter of collecting (and accurately recording and preserving) spoken data as users of the language interact with other nonverbal data streams (p. 180)

In their book, the authors are proposing a framework for the transition from monomodal to multimodal corpus analysis on the basis of several case studies, drawing on data from various spoken corpora such as the British National Corpus (BNC), the Cambridge and Nottingham Corpus of English (CANCODE) and the Nottingham Multi-Modal Corpus (NNMC). Their insightful and practice-oriented approach convincingly manages to connect the concerns arising out of the development of monomodal corpora, such as sampling, size, and representativeness, with the particular issues of multimodal corpora, such as the importance and the handling of various types of data streams. The authors caution that, with present tools and resources, multimodal features "beyond highly recurrent back channels and corresponding head gestures would be difficult to study systematically." (p. 178). Their proposed solution is the development of larger multimodal corpora and alignment of additional discourse features, particularly gestures and prosody. At the same time, this leaves content from alternative data streams, particularly in the context of internet-based communication. The challenge Adolphs and Carter see here is the reconciliation of inherently asymmetrical and fragmented computer-based interactions in the form of corpora. They conclude their analysis with a call for reevaluation of the formerly accepted linear model of spoken interaction in simultaneous multichannel interaction with dynamic contexts.

The general impression of the book and its call for multimodal spoken corpus linguistics as a matter of necessity is favourable, though there are two caveats – the first part is rather weak, if not wholly superfluous, and the case studies from Adolphs' and Carter's work are not all convincingly integrated as part of the main argument. The undeniable strengths lie in the second part, where the authors manage to assemble and discuss the key issues that will face corpus linguists in the next decade, when more and more data streams have to be integrated in order to capture all facets of communication. The brilliant, but short, conclusion leaves the reader wishing for more, and it is rather like a cliffhanger at the end of a movie when the authors observe, in their last sentence, that "such an enterprise will [...] for the moment need to be the subject of another book and this is as good a place as any to complete this one." (p. 181). One can hope that a sequel is already on its way, even if the authors might let us wait for it.

The book comprises 181 pages (excluding appendices) and is divided into two parts: Part 1 on monomodal, and Part 2 on multimodal spoken corpus analysis. The larger Part 1 presents and discusses traditional approaches to monomodal analysis and "sets the scene" (p. 2). It is also the weaker part of the book, mainly due to its treatment of corpus linguistic theory. The authors do not take the time to discuss corpus analysis at length from a 2013 perspective, but provide a rather cursory view of several well-established aspects of monomodal corpus compilation, transcription and analysis issues, illustrate them with materials from earlier research essays, and then add several newer approaches in the form of short case studies before moving on to Part 2. The first chapter, 'Making a start', has the feel of an introductory lesson for students of corpus linguistics and is too basic in the context of a book series on advances in corpus linguistics. Adolphs and Carter briefly revisit corpus design issues, among them Sinclair's (2005) guidelines and Thompson's (2005) prescriptions for spoken corpora, recording and metadata, before moving on to transcription. Though the theory part feels unnecessary in the context of what the authors set out to do, the sample analyses that accompany all chapters of the book (the use of the discourse marker *like* in Chapter 1.4) are well suited to illustrate how the integration of additional pragmatic features entails procedural and analytical issues that will have to be addressed in a multimodal context. Chapter 2 examines selected multi-word units in spoken English on the basis of the BNC. The results indicate, according to Adolphs and Carter, that these units are chosen according to Sinclair's (1987) idiom principle. The authors point out that, while multi-word units can be retrieved with increasing reliability, inferential qualitative analysis is still needed. More importantly in the context of their main issue, multimodality, the example also serves to illustrate the importance of additional pragmatic

features. The approach of pointing out limitations of monomodal analysis is repeated in Chapter 2 with a look at speaker responses in two discourse corpora, the Cambridge and Nottingham Corpus of Discourse in English (CANCODE) and the Limerick Corpus of Irish English (LCIE). The authors examine several types of non-minimal response tokens manually and find that these vary even within two close language varieties. The study shows how useful it would be to be able to integrate multimodal aspects, such as audio-visual context. It also stresses the essential role of manual analysis in spoken language corpus research. Chapter 4 contains two case studies in applied spoken corpus linguistics, one on the use of discourse markers and one on lexis in English for academic purposes. With their first study the authors show "how spoken corpora can be utilized for speaking and listening enhancement" in a pedagogic setting (p. 67), presenting a useful tentative framework for the corpus analysis of discourse markers based on both Schiffrin's (1987) and Aijmer's (2002) perspectives, and distinguishing between interpersonal, textual, topical and cognitive categories of discourse marker use. The connection to the issue of multimodality is tenuous, but their argument that useful data will be lost through the restriction on one mode remains sound and further prepares the stage for Part 2. The second study is, on the whole, unconvincing and does not really advance the authors' main argument on multimodality, as it is "based on a relatively small corpus sample of only one variety of English" (p. 107) within one domain, business, at one university. It merely indicates that there is a need to replicate the findings in larger studies, which seems rather self-evident in the context of corpus linguistics.

Part 2 of the book discusses (on 70 pages) the multimodal domain and considers which multimodal elements should be added and how they would change corpus-based description of language. It is well worth reading, and the points the authors make provide highly relevant and useful insights into the importance of multimodal data and the difficulties inherent in its integration as part of corpora. Key problems that are mentioned here are the alignment of language and other modes, particularly hand and head gestures, and the use of prosody to enhance communication. In Chapter 5, the authors comment on prosody in multimodal spoken corpora and describe how results from a multimodal corpus provide more information than a text-based corpus when looking at the use of multiword units like *I think*. Chapter 6 discusses technical and ethical considerations of capturing nonverbal communication and how to code, for example, backchanneling and hand gestures in the concrete context of the ongoing research on the interface design of the Nottingham Multi-Modal corpus (NMMC) and its accompanying analysis tool. The problems and shortcomings of this project pro-

vide useful, if preliminary, indications of the difficulties that researchers will face as they move to integrating and aligning multimodal features as part of standard spoken corpora. The brief, and remarkable, final chapter in which the authors discuss the implications of their observations should have been considerably expanded. There is a wealth of valuable and pertaining recommendations here. One fully agrees with the authors when they call for gestures and prosody to be "incorporated alongside forms of language as data for corpus analysis" (p. 179). The same is true for their comments on the "incorporation of further 'non-linguistic' data streams" (p. 179), which, as they point out, generate "valuable insights into the extent to which everyday language and communicative choices can be determined by different spatial, temporal, social and experiential contexts" (p. 179). While their observation is not new in the context of spoken discourse corpora in general, the development of recording technology now provides the opportunity to record and analyse these additional data streams unobtrusively and in a wide variety of contexts. Adolphs and Carter caution that future corpora need to consider the effects of ubiquitous computing on the complexity of communication, which leads to interaction moving "via diverse interaction mechanisms rather than the same ones that remain forever constant" (p. 179). Their main recommendation is that, since "successful interaction within these environments depends on the reconciliation of various fragments of interaction" (p. 180), the development of "new means for recording and representing these kinds of multidimensional data" (p. 181) is highly necessary. In order to capture the contextual dependencies of linguistic features, existing discourse models focused on linear acquisition and analysis of data have to be reevaluated and adapted to the simultaneous multichannel communication of today's spoken multimodal discourse.

With their book, particularly in their brilliant second part, and through their innovative research examples, Adolphs and Carter manage to provide a new departure point for the compilation and analysis of spoken language corpora from a multimodal perspective. As such, *Spoken corpus linguistics – from monomodal to multimodal* is a highly recommended reading for corpus linguists involved in the creation or analysis of spoken multimodal corpora.

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