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In November 2014, leading language researchers from India and Germany came together to participate in the 2nd Attentive Listener in the Visual World workshop. The workshop's theme was multi-modal cognition with an emphasis on the interaction between language and vision. This book is the culmination of the discussions that took place during this workshop and presents cutting-edge research from researchers whose work overlaps with the thematic framework of the "Attentive Listener in the Visual World" workshop series.

The central focus of the workshop was on how attentional and visual processes interact with spoken and written language processing. Why are attention and vision crucial to language comprehension? The human language system is able to integrate information from multiple sources and modalities. Listening to speech, for instance, is a core human linguistic process while reading builds on acquired knowledge of sounds and symbols. Both reading and listening have important attentional and visual elements in it. Classical psycholinguistics, however, has considered language and many of its subsystems like phonology, syntax, semantics and pragmatics in an encapsulated manner. This theoretical stance meant that, 15 years ago, few psycholinguists investigated the influence of attention and vision or even memory when describing and modeling important psycholinguistic processes like reading, listening and speaking. However, this state of affairs has changed dramatically over recent years. With advances in Cognitive Sciences and Cognitive Psychology, it soon became evident that language processes cannot take place in isolation from other crucial cognitive processes such as attention and vision. Examining multimodal interactions between cognitive systems became an important theoretical focus of much

research in psycholinguistics and related fields. Models of reading, spoken word processing, sentence production and a range of other activities have been shown to be affected when visual and attentional processes are manipulated. Multi-modal investigations of language processing are not only more ecologically valid, as they more closely resemble real-world, multi-modal situations, but are also better equipped to explore how language interacts with other cognitive functions in a non-modular mind.

Furthermore, prominent approaches to language-vision interactions have focused so far on whether language processing is like sensory processing (the 'embodied cognition approach') or whether cross-linguistic differences lead to permanent restructuring of cognition and perception (the 'linguistic relativity approach'). We know, however surprisingly little about the nature, representations, and mechanisms of every-day language-vision interactions such as when language guides our attention around the visual world. The chapters selected for publication in this book were chosen for their contribution to this state-of-the-art.

Muenster and Knoeferle provide a review of the studies examining the interplay between visual attention and non-linguistic and social information (e.g., speaker gaze, facial gestures) in language processing and, against the background of the relevance of social information in early development, highlight the importance of such social information on language comprehension even in adulthood and argue for the representation and activation of such information to be better incorporated in models of language processing.

James and Watson highlight the current stand on individual differences in language-mediated eye-movement research and conclude that while exploring such differences are critical for our understanding of language-vision interactions, the field, as such, currently lacks consensus and know-how of how to integrate correlational designs in the visual world paradigm.

Mitterer, Brouwer and Huettig discuss the literature on anticipatory language processing and argue that while prediction may be important to organizing natural interactions, it does not play an important role in word recognition. Given the contrast between this argument and theories that highlight the importance of prediction in the presence of suboptimal input, Mitterer and colleagues conclude with an outline of the data that would allow us to better adjudicate the role of prediction in word recognition.

Mishra and Prasad highlight the role of visual, social and cultural context on language-mediated eye-movements in bilingual populations. With a comprehensive review of the literature on bilingual language production and comprehension, Mishra and Prasad argue that that bilinguals consider the identity of their interlocutor when planning their speech, such that the language currently activated is influenced by linguistic identity of the interlocutor or the cultural identity of the images presented in the visual world paradigm.

Poarch offers a comprehensive review of the executive function research in multilingualism. This chapter traces the research from the early studies offering evidence in favor of bilinguals and multilinguals having enhanced executive function to the more recent studies finding no such differences, with a particular focus on developmental research, in an attempt to highlight the factors that may potentially lead to the differences in the reported findings.

Winskyel and Perea present a series of experiments examining the influence of mirror letters in scripts on the perception of mirrored letters in reading. They find that Thai readers, whose script does not contain mirrored letters, perceived mirrored letters as being more similar to one another relative to English readers, whose script contains mirrored letters (e.g., b vs. d). They present these results against the context of the neural recycling hypothesis (Dehaene, 2005) which argues for the influence of the recent invention of literacy on brain systems typically used in the visual recognition of objects.

Finally, Vulchanova and Vulchanov discuss a series of studies looking at figurative language processing in autism leading to the conclusion that figurative expressions may be more difficult to process in individuals with autism, highlighting problems in the on-line processing and off-line comprehension of such expressions as well as disassociations between structural language skills and figurative language processing in these populations.

Together the chapters provide in-depth reviews of the literature touching on a variety of aspects of language-vision interactions in the context of the visual world paradigm and highlight areas where there is need for further research. We hope that this book provides the reader with a concise introduction to the literature, while highlighting the issues pertinent to language-mediated eye-movement research.