

# Table of contents

## CHAPTER 1

- Introduction: Gaze, interaction and eye-tracking:  
A multidisciplinary endeavor 1  
*Geert Brône and Bert Oben*

## Part 1. Theoretical considerations

### CHAPTER 2

- Eye gaze as a cue for recognizing intention and coordinating joint action 21  
*Franco Amati and Susan E. Brennan*

### CHAPTER 3

- Effects of a speaker's gaze on language comprehension and acquisition 47  
*Pia Knoeferle, Helene Kreysa and Martin J. Pickering*

### CHAPTER 4

- Weaving oneself into others: Coordination in conversational systems 67  
*Rick Dale and Michael J. Spivey*

### CHAPTER 5

- On the role of gaze for successful and efficient communication 91  
*Maria Staudte and Matthew W. Crocker*

## Part 2. Methodological considerations

### CHAPTER 6

- Quantifying the interplay of gaze and gesture in deixis using  
an experimental-simulative approach 109  
*Thies Pfeiffer and Patrick Renner*

### CHAPTER 7

- Gaze and face-to-face interaction: From multimodal data  
to behavioral models 139  
*Gérard Bailly, Alaeddine Mihoub, Christian Wolf and Frédéric Elisei*

CHAPTER 8

Automatic analysis of in-the-wild mobile eye-tracking experiments  
using object, face and person detection 169

*Stijn De Beugher, Geert Brône and Toon Goedemé*

**Part 3. Case studies**

CHAPTER 9

Gaze, addressee selection and turn-taking in three-party interaction 197

*Peter Auer*

CHAPTER 10

Gaze as a predictor for lexical and gestural alignment 233

*Bert Oben*

CHAPTER 11

Mobile dual eye-tracking in face-to-face interaction:  
The case of deixis and joint attention 265

*Anja Stukenbrock*

CHAPTER 12

Displaying reciprocity in an interpreter-mediated dialogue:  
An eye-tracking study 301

*Jelena Vranjes, Hanneke Bot, Kurt Feytaerts and Geert Brône*

Index 323