Preface

The articles collected in this volume are a selection of papers presented at the 4th Nordic Symposium on Multimodal Communication that was held at the University of Gothenburg on 15-16 November 2012. The symposium was organized by the SCCIIL Interdisciplinary Research Center and the Division of Communication and Cognition at the Department of Applied IT at the University of Gothenburg and the NOMCO (Multimodal Corpora for the Nordic Languages) NORDCORP project. The symposium was supported by the Swedish Research Council (VR) and FORTE.

The symposium continues a tradition, established by the Swedish Symposium on Multimodal Communication, held from 1997 to 2000, and then continued by the two Nordic Symposia on Multimodal Communication held in 2003 and 2005, the workshop held at NODALIDA in Odense in 2009 and the Third Symposium on Multimodal Communication in Helsinki 2011.

Several studies based on and related to the NOMCO project were presented at the symposium and appear in this volume, most of them based on the Nordic corpora of First acquaintance interactions. Other studies on multimodal communication in the volume deal with other data and other aspects of multimodal communication. Studies on a number of topics and languages are represented in the volume. Two main topics of the papers are multimodal communication in relation to interaction regulation, e.g. turn management and communicative feedback, and multimodal communication related to emotions and attitudes.

The symposium received about 50 submissions from a number of countries in Europe, Asia, Africa and the US , 23 of which were accepted for oral or poster presentation in Gothenburg, after each being reviewed by two members of the Panel of reviewers and the Program committee. Four invited keynote speakers, Karl Grammer, Dirk Heylen, Daniel Västfjäll and Michael Kipp, were also included in the symposium program. The 12 papers included in these Postproceedings were submitted after the symposium and each paper was was revised after having been reviewed by the Program Committee and two members of the Panel of reviewers..

The first paper, by Navarretta and Paggio, studies turn management in Danish first encounters. It also includes measuring the length of contributions and one of the findings is that both male and female participants speak more when the conversation partner is female.

Ahlsén and Allwood report a perception experiment where the subjects are asked to identify the word most likely coproduced with a unimodally presented mimicked gesture. Some of the results were that gestures that were originally produced by persons with aphasia were as easy to interpret as those produced by persons without aphasia and that subjects with a different cultural-linguistic background from that of the person originally producing the gesture interpreted the gestures almost as easily as subjects with a similar background

The focus in the paper by Vella and Paggio is on overlaps in Maltese. The study includes map task dialogues and studies of face-to-face conversations and shows differences in the frequency and function of overlaps between the two conditions, where overlaps are used to achieve optimal information exchange in the Map Task dialogs, while they are a sign of ease and familiarity in free conversations.

O'Reilly introduces a study based on a corpus and interviews, as well as on an experimental empirical study of what he calls "Bipedics", i.e. communication through leg and foot gesture. This is one of several contributions on multimodal communication of emotion and attitudes. The results of both O'Reilly's studies support a link between certain bipedic gestures and the expression of attitudes and emotions.

The study by Ahlsén and Berbyuk Lindström takes the different phases of a particular social activity – the intercultural health care interaction – as its point of departure and describes the different types and functions of multimodal communication in these phases. Functions of multimodality, for example in enhancing comprehension and establishing rapport, are exemplified and discussed.

Henrichsen and Allwood have developed an approach to automatic prediction of attitude flow in dialog from multimodal speech cues and report on the results of using this approach in a first experiment. Their results include a recommended set of analytical annotation labels and a recommended setup for extracting linguistically meaningful data even from noisy audio and video signals.

A comparative study of Danish and Polish multimodal feedback in interaction is provided by Navarretta and Lis. Even though the same types of head movements and vocal expressions are used in the two languages, the Polish data contain more multimodal feedback in general and more repeated multimodal feedback. A relation between familiarity and repetitive feedback is also found.

Tuna, Allwood and Ahlsén attempt to capture the multimodal cues showing the attitude of interest in first acquaintance dialogs. Multimodal expressions connected with showing interest mainly include types of five body movements/gestures; gaze, head movements, holistic face, hand movements and body postures. The expression

of interest only and interest in combination with other affective-epistemic states is also analyzed.

Another study of emotions and attitudes, by Lindblad and Allwood, focuses on measuring their expression through prosodic features. The study uses studio recorded feedback words read with the intention to express different affective-epistemic states (AES) for a perception experiment as well as an acoustic analysis of these features. The results varies, i.e. there is more agreement among the subjects on some AES than others, which might reflect different degrees of dependence on prosodic cues in relation to other expressive features. The method shows promise for further studies.

The paper by Allwood and Vilkman focuses on how vagueness, unspecificity, approximation, uncertainty and hesitation (VUAUH phenomena) are reflected in word and gestures in a corpus of political debates. Some VUAUH types seem to be connected to certain gestures, e.g. approximation to head waggle.

Capturing multimodal expressions of emotions and attitudes in videorecorded interactions requires coding and/or automatic analysis and different methods have been used in the studies reported in this volume. Luff-Studsgård and Anderson contribute a methodology paper on annotating attitudes, where they suggest annotation in the PAD (pleasure, arousal, dominance) space in combination with annotation labels, in order to reach a higher intercoder agreement.

The last paper, by Wessel-Tolvig and Paggio, also deals with attitudinal emotions, focusing on head movements in Danish first encounters and their relation to reported attitudinal emotions in post-experiment questionnaires. The findings suggest a slight positive correlation between number of head nods and a more positive attitude.

On behalf of the organizing committee

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