#### Report Marc Swerts on visit to South-Africa and Swaziland (2-10 July 2008) as an ISCA distinguished lecturer

## 1. Introduction

From July 2 till July 10, 2008, I visited South-Africa and Swaziland on the second trip during my term as an ISCA distinguished lecturer. During the visit, I gave 3 lectures for colloquia at the University of Witwatersrand in Johannesburg and at the Meraka institute (a lab specialised in language and speech technology) in Pretoria, and as a keynote speaker in Manzini (Swaziland) where I was invited to attend a local conference. In addition to the lectures, I have taken the opportunity, while I was visiting, to start up a collaboration with Sabine Zerbian, with whom I have discussed results of some pilot experiments on cross-linguistic analyses of prosodic structures, which we will use as a basis for future collaborations.

Below I will elaborate on the lectures I have given during my visit, and on the initiatives to set up a joint research project with my local host in Johannesburg, Sabine Zerbian.

### 2. Lectures

During my lectures at various occasions, I have first taken the opportunity to introduce the ISCA organisation and its various goals and objectives. In addition, I discussed my work on nonverbal communication, in particular talking about results of various analyses of facial expressions in human-human and human-machine interactions. While the results were primarily based on research of Dutch speakers and observers, it was nice to see that the talks always initiated discussions on the extent to which our findings generalize to other (i.e., African) cultures as well. The audiences as well as the general environment in which I gave the talks were quite diverse.

First, I have paid a visit to the Human Language Technologies group at the Meraka Institute in Pretoria (South-Africa). This goal of the HLT Research Group at Meraka is to study how human language technology can be applied, adapted, and developed to benefit the people of southern Africa. This goal is considered from two perspectives: (1) HLT as an enabling technology that can play a crucial role in addressing the need for information empowerment. An example is telephone-based systems using HLT that can provide much useful information. (2) HLT as a support for language diversity in an affordable and equitable fashion. HLT can assist industry and government to make services and documents available in the 11 official languages in South-Africa and has a role to play in rectifying the historical discrimination against specific languages. At Meraka, I have talked with one of the research leaders, Etienne Barnard, who is primarily concerned with aspects of automatic speech recognition (including the possible incorporation of prosody in automatic speech recognition), and with tone modelling for building synthesis systems of a number of Bantu-languages. My talk at Meraka was well attended, also by people from outside the institute, such as Laurette Pretorius, who does interesting work on building a Northern Sotho embodied conversational agent, and researchers working on the automatic interpretation of sign languages.

I was also invited, during my visit to South-Africa, to give a keynote lecture at the ALASA conference in Manzini (Swaziland), 7-9 July, 2008. ALASA (http://www.alasa.org.za) stands for the African Language Association of Southern Africa, and organisation whose primary goals are (1) to promote interaction between researchers, students and teachers of African languages and literature, and (2) to assist in the promotion of research, language development and effective verbal and written communication in a multilingual society, for example, in matters relating to language planning and. The ALASA conference turned out to be quite an international event, in that it not only attended participants from South-Africa and Swaziland, but from other African countries

(Botswana, Zimbabwe and Kenia) as well. The conference attracted about 70 people, and focused on socio-politic, linguistic and cultural issues related to the complex, but intriguing language situation in the southern part of Africa. Of all the talks I attended, I would like to mention interesting ones on gender-related aspects of language use (Muntu Evelyn Mothibe), on the jargon and tabu-language of Botswana students (Nkolola), on the use of nicknames in South African soccer teams (Hlongwa), on tone and prosodic domain in Akoose (Ekanjume), on the language used in male initiation rituals (Musehane) and on coherence markers in academic writing of students at the Walter Sisulu university (Tshotsho)

And finally, I gave a lecture at the university of Witwatersrand in Johannesburg (South-Africa), where the audience mainly consisted of BA, MA and postgraduate students. The students who attended came both from various departments of the humanities faculty, including people specializing in sign language and general linguistics. The talk was well attended, and I received some nice questions on the relevance of my work on facial expressions for sign language, and for general cognitive development.

# 3. Collaboration

While I was in South-Africa, I have also taken the opportunity to discuss the possibilities to set-up a joint research project with my local host in South-Africa, Sabine Zerbian. I had been in touch with Sabine before my visit, as we both share an interest in the prosodic structures that speakers and listeners employ for marking important (prominent) information in spoken interactions. We have previously used specific elicitation procedures for getting semi-spontaneous, yet controlled types of natural discourse, that allow the proper analysis of intonational and tonal properties of potential cues to new, given and contrastive information. With Sabine, I have started to look at ways to initiate a collaboration on a comparative analysis of prosodic structures in typologically different languages.

After some discussion, we have agreed to work together on research with the goal to see how the prosodic structures in the English spoken by South-African speakers who use English as a first language compare to that of English used as a second language by people who speak Zulu as a first language. In particular, we are interested in the extent to which prosodic correlates of the second language are transferred to that of the first language, given that Zulu has been argued to be markedly different in terms of its use of intonation for marking aspects of information structure. Our first set of data from recorded speakers give some promising results, as they show that the prosodic structures of languages that are intonationally quite distinct may have clear correlates in the structures of English as a second language. We intend to explore this research question further in the future in a more elaborate project.

## 4. Conclusion

My visit to South-Africa and Swaziland has been a very rewarding one, in that I got in touch with a new culture and have been made aware of interesting new problems. I was pleased to see that my own work on facial expressions was well received on various occasions, and that I was able to get people reflect on how aspects of nonverbal communication in Dutch may generalize to their own language. I am very excited about the fact that, through this visit, I have also been able to initiate a new project on cross-linguistic comparisons of prosodic structure in collaboration with Sabine Zerbian of the university of Witwatersrand.