

On the Phonetics and Phonology of Tonal Rises in German Dialects
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A growing body of studies concerning the alignment of tonal categories with respect to the segmental string contribute to develop a more precise picture of the theory of intonational phonology (e.g. Arvaniti et al 1998, Ladd et al. 2000, Atterer & Ladd 2004). In particular detailed phonetic analyses provide evidence for the reality of tonal targets, clarifies the nature of a starred tone, and yield in cross-linguistic information of tonal categories itself that result in comparable descriptions of tonal grammars of different languages.

Cross-language comparisons of tonal categories and their alignment show real evidence in favour of the assumption of tonal elements to be built up of lows and highs, i.e. tonal targets. Yet, an appropriate tonal representation of certain tonal events seem to be unreachable concentrating on one language variety alone. In modern Greek, for example, Arvaniti et al. (1998) found that prenuclear rising accents consistently align their low target five milliseconds before and their high target after the stressed syllable, meaning that neither of the two targets forming a rising tone (LH) being associated with the stressed syllable. From that no decision may be made where to put the star in order to mark the metrical prominence of the pitch accent. Recently, Atterer & Ladd (2004) showed that Northern and Southern German speakers consistently align prenuclear rising accents with the segmental string, though Southern German speakers show later alignment than Northern German speakers. Comparing their results with published data on the alignment of English, Dutch and Greek accents, the authors conclude that the realisation of tones, here the tonal category of a rise (LH) without acknowledging the metrical prominence of the pitch accent by putting a star to either of the tonal entities, is based on language specific phonetic implementation rules rather than any secondary alignment of the individual tonal targets. They further hypothesise that this might be true for language varieties and call for more evidence in favour of this claim.

The general aim of this paper is to deliver further data of the alignment of tones from our dialect corpus in order to provide supportive evidence for the general hypothesis that underlying equal phonological tones yield in different phonetic realisations across dialects. Moreover, we attempt to contribute to the general theoretical debate of what a starred tone has to look like cross-linguistically (Arvaniti et al. 2000), and whether phonetic analyses of tonal alignment in combination with analyses of pitch excursions may help to decide phonologically which kind of tonal grammar a language variety explores.

Our dialect corpus consists of several hours of spontaneous speech, in particular map task dialogues and free conversations. The speech data were obtained recording two speakers having a conversation at their homes' in order to achieve maximal naturalness in speech. This is particularly necessary since dialect speakers themselves reported to use their real dialect variety almost only at home in interaction with their relatives and friends. In total, 10 speakers (5 conversations) per dialect area (Swabian German and Upper Saxon German) have been recorded and subsequently digitised at 16 kHz. Transcriptions were made using Praat (© 1992-2004 Boersma & Weenik). Alignment and excursion measurements were performed in Praat on the basis of a tonal labelling of the data. For this study accentual rises were analysed in order to get results comparable with earlier published investigations cited above.

Previous findings on Swabian German (Kügler to appear) in combination with the results of the current study suggest that one and the same tonal category (a rising pitch accent) is realised differently across dialects, thus pointing to a variety-dependent phonetic implementation mechanism claimed by Atterer & Ladd (2004). More generally, the above touched question concerning the representation of tonal categories phonologically will be discussed on the basis of the results of the current study and previously published data.

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