The tonal events of NK Kurdish Abstract

The importance of intonation has been unanimously agreed-upon among Kurdish linguists (Majid, 1987; Hasan, 2005; Mosa, 2009). However, there is no detailed description of Kurdish tonal events and their interaction with other prosodic and segmental features. This study is a first attempt to provide a comprehensive description of the tonal events of one of the most widely spoken varieties of Kurdish, namely, Northern Kurmanji (NK) within the framework of autosegmental-metrical phonology (AM).

The present investigation which is part of a larger study is based on recordings of read speech which consists of experimentally designed sentences and a short story. The data is produced by 30 NK native speakers, undergraduate and staff at the University of Duhok. The data were phonetically and prosodically annotated in adaptation of the ToBI system (Beckman and Hirschberg, 1994; Beckman and Elam, 1997; Beckman, et al, 2005) to prepare the material for paradigmatic and syntagmatic comparisons of prominence marking and demarcation of boundary tones.

We identified four bitonal pitch accents associated with the prominent syllables in NK, i.e. H*L, HL*, L*H and LH*. The pitch accents may be right-headed or left-headed. The starred tones are invariably timed to be associated with the accented syllable, whereas the unstarred tones are variable in their association and alignment, i.e. they may be associated with the accented syllable, in the following syllable(s), in the preceding syllable(s) (in the case of HL* and LH*) or they may be delayed to be aligned with the end of the intonation phrase (IP). All of these tonal events were found in nuclear position but only one type, namely L*H appears in the prenuclear position. Moreover, the pitch accents in NK are not specific to the accented lexical item and can never contrast different lexical items, but can contrast different intonational meanings. Additionally, it is shown that NK Kurdish is a stress-accent language in which both tonal and non-tonal features, especially duration, are used to indicate prominence. Furthermore, NK has a limited pitch accent distribution, i.e. pitch accents do not occur on every phonological word (PW) in an IP because it is governed by information context, utterance-type and sometimes the speaker.

In our study, we also identified four types of boundary tones: L%, H%, LH% and 0%. It is observed that the co-occurrences of the boundary tones depend on the type of the pitch accent, i.e. the falling pitch accents (H*L and HL*) only co-occur with either H% or 0%, the rising pitch accent L*H co-occur with L%, LH% or 0%, and the rising pitch accent LH* co-occur with either L% or LH% boundary tones.

The study contributes to the debate of a number of unsolved issues in the AM approach, such as the existence or non-existence of phrase accents and the (co-) occurrence of trailing and leading tones in bitonal pitch accents. It supports the motivation of trailing tones and following a number of authors (e.g. Ladd, 1983 and Gussenhoven, 1984), it indicates that there is no motivation for positing a phrase accent, i.e. in H*L and L*H pitch accents the trailing L and H tones undergoes a tone spreading rule or the other possibility is that their association is delayed to the IP-final and there is no obvious phonetic basis for inserting a phrase accent. Furthermore, the study not only contributes to fill a gap in the Kurdish phonological studies, but also can be considered the first step towards developing NK-ToBI, a language specific intonational transcription tool that adapts the leading framework for annotation of intonation in the field. Besides, the study is a step in enriching the typological studies of intonation by adding another language to those that have already been investigated, and to pave the way to a more refined theory of intonation by comparing and contrasting a greater number of languages.

References

Beckman, M. A. a. H. J., 1994. *The ToBI Annotation Conventions, Appendix A.* s.l.:The Ohio State University Research Foundation.

Beckman, M. A. & Hirschberg, J. a. S.-H. S., 2005. The Original ToBI System and the Evolution of the ToBI Framework. In: *Prosodic typology: the phonology of intonation and phrasing*. Oxford: Oxford University Press, pp. 9-54.

Beckman, M. E. a. E. G. A., 1997. *Guidelines for ToBI labeling, version 3.0.*. s.l.:Linguistics Department, Ohio State University..

Hassan, A. M., 2005. The accentual function of intonation in Kurdish with reference to English. Mosul: University of Mosul.

Majid, S. H., 1987. The role of intonation in grammar with reference to English and Kurdish. Mosul: University of Mosul.

Mosa, A. K., 2009. *Hêz u awaze le diyaliktî kurdî jûrûda (Stress and Intonation in Northern Kurmanji)*. Hewler: Kurdish Academy Press.