

## Abstract

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### **Rising and falling accents and the interaction of pragmatics and prosody in Egyptian Arabic**

The intonation of Egyptian Arabic (EA) is a comparatively under-researched field. Three dissertations and a handful of papers within the autosegmental-metrical framework address the topic.

The most recent study by Hellmuth (2006) identifies one basic kind of pitch accent for EA and analyzes it as LH\*, based on the phonetic characteristics of the peak in the tonal movement, which basically aligns with the end of a metrically strong heavy syllable (CVC or CVV) or with the post-stress syllable if the stressed syllable is light (CV). Rastegar-El Zarka (1997) investigated a more formal variety of EA and analyzed the pitch accent as H\*L. Rifaat's study (1991) is an investigation of the neutral declarative sentence in Egyptian Classical Arabic, an even more formal variety, and analyzes pre-nuclear accents as LH and nuclear accents as HL. In a more recent paper, Rifaat (2005) labels pre-final accents as H and the final accent as HL. Both Hellmuth (2006) and Rifaat (1991) take an experimental quantitative approach in their studies while Rastegar-El Zarka's (1997) qualitative analysis of spontaneous and semi-spontaneous speech is instrument-aided and corpus-based.

In this paper, I argue that in EA

- 1) alignment should not be the basis for identifying the basic accent type (rising LH as against falling HL). Based on data from different speech styles and different speakers, I will argue that the actual synchronization of the peak depends on speech rate and deliberateness. In more careful *lento* speech, peaks tend to be earlier and mostly fall within the limits of the stressed syllable and very often align with the first mora.
- 2) as an alternative to, or together with other formal devices, alignment or the synchronization of the peak with the speech material is grammaticalized as it is used to signal topical versus focal constituents. Topics can be characterized by a late peak far beyond the stressed syllable, frequently at the end of the word, while in focal constituents the turning point lies within the stressed syllable. This is especially true for early or narrow focus. In cases of broad focus the last accent is normally downstepped, either partially or totally, forming an L-plateau at the end of the phrase. All else being equal, a topic-comment structure could be distinguished from a subject focus utterance solely by the subtle difference in alignment (or association).

Based on recent findings (El Zarka 2007), I suggest an alternative analysis of the basic pitch accent type in EA, which shows a striking similarity to pitch accent languages, only that EA accent is not lexically specified but rather a postlexical phenomenon. Like Swedish (Gårding 1998), EA content words mostly carry a pitch accent and function words do not (Rastegar-El Zarka 1997, Hellmuth 2006).

In line with Liberman (1975), I assume a tune-text association procedure that synchronizes the peaks and valleys of the tonal and rhythmic structure with the linguistic material.

Thus, when a sequence of

L H L H L H L

is aligned with the linguistic material, L-targets are located at the beginning of the stressed syllable and H-targets rather in the middle or towards the end of the stressed syllable, with the H tone being the salient part, thus yielding the following structure for the neutral declarative sentence:

L H\* L H\* L H\* L.

The basic gesture is L H L. As in pitch accent languages, this gesture can best be described as belonging to one *accentual phrase* or *tone group*, which will typically be assigned to one prosodic word including suffixes or a sequence of a content word plus a function word. In a recent re-analysis of the Swedish word accents, Bruce (2005) also suggests to analyze the basic gesture of the two word accents in Swedish as L+H+L.

Though the first L and the H of the tonal domain in EA typically constitute a sharp rise across the accented syllable and on-ramp articulations of the rising movements are rare, this first low target is not obligatory and can be dispensed with in the beginning of contours, under conditions that are not yet fully clear. The second L will only be visible with a sufficient amount of segmental material between the stressed syllables, as a sequence of three or more unstressed syllables will frequently be realized as an even low stretch between the individual tonal movements surfacing as L H L...L H L. Following Gussenhoven (1983), I take this phenomenon to be an incidence of tone-linking.

It is the behaviour of the third tone in a tone group which is especially interesting, as the latter is subject to meaningful variation. To convey different meanings like finality and non-finality and pragmatic categories like topic and focus, this last tonal element is varied. Narrow or early focus can be signalled by the early alignment of the trailing L-tone at the end of the stressed syllable (Rastegar-El Zarka 1997), which also yields an early alignment of the H. In more casual and faster speech, a large part of the fall occurs within the stressed syllable but the final L target is not necessarily reached at the end of the syllable itself. Topical or focal accents can, but by no means must, be accompanied by a phrase break. As already mentioned, topics are often generally rising and characterized by a late peak. The striking fact is that there is no melodic contrast between the two contours, the only difference being the different alignment with the linguistic material. These facts invite an analysis based on phonological features such as [delayed peak] along the lines of Ladd's (1983) suggestions. This leaves us with two different types of variation in alignment, phonetic variation on the one hand and meaningful phonological variation on the other hand.

The preliminary results of this mostly qualitative analysis will have to be further substantiated by experimental data. Most importantly, a final analysis will rely on perceptual experiments identifying the main cues to the perception of focus and clarifying other central questions such as the possible need of a phrasal component, and production experiments to identify the landmarks of H and L tones under focus and topic conditions.

## References

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