

Focus and F0 patterns in Jeddah Arabic

Hajar Moussa Jalal Al-Tamimi

h.moussa1@newcastle.ac.uk

jalal.al-tamimi@newcastle.ac.uk

Newcastle University

This study is an acoustic investigation of the realisation of contrastive focus in Jeddah Arabic, an urban Arabic variety spoken in west Saudi Arabia. The study is carried out in an attempt to widen the scope and volume of the literature on Arabic prosody that would in turn aid in the cross-dialectal comparison of prosodic and intonational patterns. As opposed to 'neutral' or 'broad' focus where an utterance is given equivalent emphasis (prominence), a narrow focus sentence emphasises a particular constituent within the string, in order to make it perceptually salient. Narrow focus can be further employed to contrast information 'contrastive focus' or for intensification (Yeou et al: 2007).

Focus has been reported in many languages to be generally manifested through prosody, thus, intonationally- among other lexical and syntactic means (Xu & Xu: 2005, Hellmuth: 2011). In AM theory, narrow focus is manifested via nuclear accent marking, that is, prominent F0 behaviour over the focused constituent, compared to broad focus and pre and post focal material. The theory hence maintains a close interaction between accent distribution and information structure. The F0 behaviour is manifested acoustically via pitch level, range and excursion size: increased peak height and excursion, pitch compression or absence thereof between broad and pre/post focal material and narrow focus; in addition to contour shape: languages may have specific accent shapes differentiating both conditions. As a result of this F0 behaviour, vowel duration has been reported to also mark different focus conditions with a longer duration reported for narrow focus vowels.

Data for the study were collected from 20 native male and female speakers of Jeddah Arabic. The design of the focus material constitutes of declarative sentences as answers to questions in the form of a short dialogue. The target answer word is a disyllabic initially stressed proper feminine noun /'Laa.na/. This constituent is accordingly placed in three different sentential positions (initial-medial-final) in two focus conditions. Every target sentence corresponded to a specific question that elicits desired focus type and position. Data were semi-automatically segmented and manually transcribed using a modified TOBI system for Arabic. For each target sentence the following acoustic analyses were extracted: F0 excursion size (in Semitones), F0 contour shape and vowel duration (in Milliseconds). Preliminary results show a noticeable effect of focus on accent distribution and phrasing, a lengthening and raising effect of narrow focus on target vowel duration and peak height suggesting that JA speakers rely on quantitative differences to distinguish the two focus conditions, though qualitative differences also seem to play a role. These results indicate that information structure regarding focus is conveyed prosodically in this dialect.

References

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