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The acoustic characteristics of diphthongs in Mišótika Cappadocian: findings from two refugee villages in Northern Greece

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This paper discusses the acoustic characteristics of diphthongs in contemporary Mišótika, the Cappadocian variety originally spoken in Mistí. The aim is to analyse the distribution of diphthongs in the vowel space and determine their phonetic status. In particular, we compare the realization of diphthongs in the speech of ten male native speakers from two Cappadocian refugee communities: Neo Agioneri (Kilkis) and Xirohori (Thessaloniki).

The present study traces the distinctive phonetic properties of Mišótika diphthongs which are realized at the boundary of a word (internal hiatus) according to measurements at two time points, at the beginning (25%) and at the ending (75%) point of each diphthong in order to detect its trajectory (see Harrington 2010; Jacobi 2009). We identified 19 diphthongs which are classified according to stress position. We divided these into *'closing'*, *'centring'* and *'opening'* to determine whether the diphthongs are produced with a tongue movement to a low or central or to a high position in the vowel space (Clark et al. 2007). These distinctions aim to capture the direction of the diphthong trajectory in the F1/F2 acoustic vowel space (see also Maxwell & Fletcher 2010). In Mišótika, the part of the diphthong which is characterized as more prominent is defined by the stress position. In other words, the stressed segment of the diphthong is more prominent than the unstressed one.

The results of the analysis show that there are variations of diphthongs in the vowel system of the speakers due to the stress position in the onset or offset element. Specifically, the position of stress influences the gravity center of the diphthongs and causes graduations in the beginning and/or the ending point of a diphthong in the vowel spectrum. Also, the length of the Euclidean distances from the first segment to the second vowel target seems to be affected by the position of stress. In particular, using the terms *'broad'* and *'narrow'*, where broad is related to a longer trajectory and narrow to a shorter trajectory (Kerswill & Torgersen 2008), it was found that if the same diphthong is stressed in the first segment, its trajectory is broad, but if it is stressed in the second segment, it is narrow. Moreover, the trajectory often diversifies because of the direction of the diphthong, as for a *closing* diphthong (e.g. oi) the trajectory is broad, but for an *opening* (e.g. io) it is narrow.

At the same time, we detected differences between the two villages under investigation in relation to the diphthongs' realization and trajectory. In particular, many pairs of diphthongs present more than one variation in their realization by the speakers of the two Cappadocian communities and most of them are determined by the F2 values in the vowel spectrum.

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