THE EPIGLOTTIS AS AN ARTICULATOR

Asher Laufer, Hebrew Language Department, Hebrew University, Jerusalem, Israel, and I.D. Condax, Department of Linguistics, University of Hawaii, Honolulu, HI 96822, USA

We find that the epiglottis functions as an articulator in the production of (1) pharyngeals (2) the vowel [a] (3) whisper. In pharyngeals we find the epiglottis articulates against the posterior pharyngeal wall; the constriction varies from a full closure (pharyngeal stop) in the extreme case of [ʕ] in slow careful speech, through narrow opening (fricative [h, ?, y]) in connected speech to fairly open glide [γ]. The epiglottis folds toward the pharyngeal wall independently of the tongue root in these consonants. In the vowel [a] the opening is of the same shape as for the pharyngeal consonants, but the opening is substantially larger. The opening allowing the escape of air is between the epiglottis and the pharynx (never between the tongue and the pharynx lateral to the epiglottis). The independence of the epiglottis from the tongue is seen in some cases and not in others for [a]. In whisper the epiglottis is in general more retracted than during normal speech. These observations are based on approximately 100 minutes of videotape made using a fiberscope positioned in the upper pharynx (of nine subjects), spectrograms, and dissection of cadaver materials.

[This work was supported in part by NIH grant NS9780, the UCLA Phonetics Laboratory, and by Faculty of Humanities of Hebrew University of Jerusalem.]