

Influence of indexical information on sound processing

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A great number of perceptual studies indicate that variables other than acoustic properties of speech signal can influence perception of sounds. Such variables include perceived age (Hay, Warren & Drager 2006), social background (Hay, Warren & Drager 2006) and gender of the speaker (Strand & Johnson 1996; Strand 1999, 2000; Johnson 1990, 2006). Visual cues, such as labels on answer sheets, suggesting geographical background of speakers have been shown to influence the processing of sound signal (Niedzielski 1999; Hay, Nolan & Drager 2006). A perceptual study by Hay and Drager (2010), in which participants were exposed to an object associated with a country and its culture (stuffed kiwi or kangaroo toys) while classifying sounds heard in an auditory task, suggests that even exposure to a mere concept of a culture associated with a certain pronunciation may shift listeners' perception of heard sounds. The present study, carried out within the exemplar theory framework, analyses the way the presence of items associated with Greece or Cyprus (and/or corresponding cultures) influences Greek Cypriot listeners' perception of a boundary between geminate and singleton alveolar plosives. Namely, listeners taking part in a forced-choice perceptual task were asked to categorise a heard sound continuum as singleton or geminate plosives in the presence of (1) a Greek Cypriot flag (symbolising Greek Cypriot culture), (2) Greek flag (symbolising Mainland Greek culture), or (3) no flag at all. As expected, the presence of flags caused a slight shift in perception of the sound continuum. However, the way the perception of the target sounds shifted in the present study was different from the way that was observed by Hay and Drager (2010), Hay Nolan and Drager (2006) and Niedzielski (1999). The discrepancies between the results of the present study and of the other three studies demonstrating the influence of indexical information relating to geographical areas on sound perception imply that even though influence of indexical information seems to apply across language communities, the ways in which perception is affected by indexical information appears to be determined by a linguistic situation in and social dynamics of a given linguistic community.

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