

SPEECH PERCEPTION AND THE PHENOMENON OF FOREIGN ACCENT

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Although the phenomenon of foreign accent is commonly attributed to the learner's inability to articulate target language sounds, recent studies suggest that an important cause of foreign accent is a faulty perception of the sounds of the target language by non-native speakers of that language. This paper will review the results of recent experiments that document the important contribution of speech perception to the phenomenon of foreign accent.

The first experiment dealt with the pronunciation of a three-way vowel contrast (French /i:/y:/u/) by speakers of English and Portuguese where only two of these vowels occur (/i/ and /u/) [1]. Anglophones usually replace French /y/ with an [u]-like vowel, while Portuguese speakers replace it with an [i]-like vowel, with no apparent articulatory reason for this different outcome. A psychoacoustic test using a continuum of synthetic high vowels differing in F2 frequency and consisting of a forced-choice identification task revealed that the explanation to this phenomenon is to be found in the perceptual domain: The results of the test indicate that anglophones perceive French /y/ as belonging to their /u/ category, while Portuguese speakers perceive it as belonging to their /i/ category.

The second experiment focused on the actualization of a two-way consonantal contrast (French voiced and voiceless stops) by speakers of Mandarin Chinese, for whom the same contrast rests on different physical attributes [2]. A psychoacoustic test using a continuum of synthetic bilabial stops differing in VOT duration and consisting of a forced-choice identification task provided a description of the perception of these categories by speakers of Mandarin Chinese. These perception results, in conjunction with objective measurements of production data on the VOT values of French and Chinese plosives, provide an explanation for the replacement of French [p] with [b] and of French [b] with [p] by speakers of Mandarin Chinese, and make it possible to understand the variation observed in imitations of French plosives by native speakers of Mandarin Chinese [3].

The results of a perceptual study in which native speakers of Italian and anglophones were asked to identify single and double (geminate) intervocalic consonants suggest that Italian listeners are sensitive to differences in consonant duration and not to co-occurring differences in vowel duration in the process of distinguishing between words like fato and fatto [4]. On the other hand, it appears that anglophones are not sensitive to differences in consonant duration and that they rely instead on differences in vowel duration. This brings to light the importance of the

perceptual expectations of the speakers of the target language as a component of the phenomenon of foreign accent: Although English learners appear capable of distinguishing between Italian single and geminate consonants on the basis of concomitant vowel duration differences, their continued reliance on the latter in production is likely to prevent them from being understood, or perceived as native or near-native by Italian listeners, because the latter appear not to be sensitive to vowel duration differences but only to consonant duration differences.

Because of the important role of speech perception in shaping accented productions of target language sounds, it seems that any accent reduction program must include a well-structured auditory training component based on a good understanding of how non-native speakers perceive the sounds of the target language, and keeping in mind the perceptual expectations of the speakers of the target language. The results of recent laboratory experiments in which auditory training led to a better perception and production of non-native sound contrasts ([2], [5]) reveal the value of this approach and suggest that it deserves to be integrated systematically into foreign language pronunciation instruction.

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