

L2 acquisition of Japanese pitch contrasts: an investigation on cross-linguistic difference in the function of pitch

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The aim of this study is to investigate how a cross-linguistic difference in the function of pitch takes part in learning difficulties during L2 speech acquisition. Thus far work in this area has been focused on segmental contrasts. However, research on prosody such as stress, length or pitch could provide us with a more comprehensive view to understand the mechanism of L2 acquisition. It is particularly important because a prosodic property can be systematically used in both L1 and L2 while its function shows cross-linguistic differences. There is also evidence to suggest that prosodic divergence in learners' productions is more likely to give non-native like impression than segmental divergence (Kawano 1998; Pennington & Richards 1986). Hence, an investigation on prosody could contribute not only to theoretical insights into L2 speech phenomenon but also practical use in L2 classroom.

Both English and Japanese have phrasal function of pitch to differentiate intonation patterns. Pitch also plays a role in lexical function to distinguish word meanings in Japanese. Pitch accent in Japanese is characterised by the F0 peak alignment of pitch contour followed by a rapid fall (Hasegawa & Hata 1992; Sugito 1982). Thus, learning Japanese pitch accent contrasts can be problematic for native speakers of English in that they have to learn this acoustic pattern of F0 as function of pitch in Japanese apart from the phrasal function. The present study addresses two questions: 1) whether or not F0 profiles produced by English-speaking learners diverge from those produced by native speakers of Japanese, 2) if they do diverge, what the potential factors behind such differences are. One of the main claims has been that learning difficulty of L2 speech acquisition lies in learners' perception ability of target contrasts (e.g., Flege 1995). However, having linguistic function of pitch in L1, difficulty in hearing the differences in pitch patterns may not be the determinant factor for learning difficulty of English speakers.

To answer above questions, I conducted imitation tasks and perception tasks using sets of disyllabic nonce words in Japanese such as *mene* or *noma*. Participants were native speakers of Japanese and learners whose L1 is English. Based on their L2 experience, learners were divided into two groups (experienced/inexperienced learners) to examine developmental changes in their performance if there is any.

In this talk, I will present how learners' F0 profile diverges from native speakers of Japanese in terms of intelligibility score and the acoustic measurements. Secondly, I will report the evidence for the possible factors behind the learners' divergent F0 pattern. Finally, I will discuss that learning difficulty of English speakers in acquiring Japanese pitch accent contrasts may arise from the combinations of several factors including the process of internalising lexical function of pitch in Japanese.

References

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