Is there conflation? An acoustic analysis of vowels in Japanese English

Toshiko Yamaguchi and Poh Shin Chiew

*Department of English Language, University of Malaya, Kuala Lumpur, Malaysia; †Department of Malaysian Languages and Applied Linguistics, University of Malaya, Kuala Lumpur, Malaysia

ABSTRACT

This article examines whether conflation, a term introduced by Nihalani, occurs among English vowels produced by four Japanese native speakers reading a short English text. On the basis of perceptual, acoustic, and statistical methods, it is argued that conflation is not key to understanding the structure of vowels in Japanese English (JE). Having inspected vowel variants, we conclude the following. First, since conflation is not guaranteed, singular emphasis on suprasegmental features is untenable. Second, vowel space in JE tends to be centralized. As a result, speakers have more difficulty producing open back vowels. Third, the centralized vowel [a], substituted for five vowels [æ], /, /t/, /s/, /t/, is not statistically speaking a single sound. Fourth, JE speakers produce near-native vowels to different degrees. Statistical test results showed no significant difference between the pronunciation of the open-mid vowel [a] produced by JE speakers and an American English speaker.

1. Introduction

This article examines the results of the acoustic analyses undertaken by Nihalani (1999, 2001, 2010) by investigating a new group of Japanese speakers residing in Malaysia as experimental subjects. The main focus of this experiment is to determine whether or not what Nihalani (2001) called ‘conflation’ (p. 70) is present in the sample of speech sounds produced by these speakers, who participated in our experiment in 2016 and 2017. Nihalani (2001) originally wrote:

Since vowel segments of each pair tend to cluster together, there seems to be hardly any significant qualitative difference among these pairs of vowels. No wonder, pairs of words like beat and bit, pot and port, cat, cart and cut, and pull and pool very often sound indistinguishable from each other in Japanese English. (p. 69)

The term ‘conflation’ refers to cases in which two (or three) vowels are not pronounced distinctly and are instead realized with, or sound like, a single vowel. An example is the conflation of /æ/ and /a/, which are both realized as [a] (see Table 1). As a result of this single production of the two vowels, it is assumed that Japanese speakers of English find it hard to