TOWARDS A PHONOLOGY OF SINGAPORE ENGLISH

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1. INTRODUCTION

At the present state of research, almost any paper on the phonology of Singapore English has to begin with a number of caveats, and this is no exception.

Firstly, it has to be pointed out that I am not yet in a position to make any statistically valid claims about educated Singaporean English speakers in general. I have been investigating the speech of an individual, an undergraduate at the National University of Singapore, whom I judged to be representative of the younger generation of educated Singaporean speakers who use English as their primary language -- which is the type of speakers I am most interested in. The investigation of the linguistic systems of individuals is both a valid enterprise in its own right and a necessary first step towards a general description of a language or variety of language.

Secondly, a crucial distinction needs to be made between what speakers do and what they know. For example, the majority of educated Singaporean speakers can hear the difference between RP sit [sɪt] and seat [sɪt], and may even be able to mimic these pronunciations, but in their own spontaneous, natural speech, no distinction is normally made, both words being pronounced [sɪt]. (Incidentally, a parallel situation exists in Singapore Mandarin. Most educated Singaporean speakers of Mandarin know that there is a distinction in Beijing Mandarin between dental, palatal and retroflex obstruents, as illustrated by the initial consonants in sì ('four'), xī ('west'), and shì ('matter') respectively. But in their own speech, there is no such distinction, all three being pronounced with a dental or alveolar [s].

What I am investigating in this paper is what speakers actually do, not what they know. It is quite possible for some Singaporeans to think that their pronunciation is different from what I am describing, and that they make certain distinctions, when in actual fact they do not in their natural -- as opposed to artificial and self-conscious -- speech.

Thirdly, the phonological system of a speaker is a complex and multi-faceted thing, and is far more than a mere inventory of sounds. In the context of this paper,
I am naturally not in a position to describe the phonological system of even an individual speaker in any comprehensive manner, but only certain salient aspects of it. Though, ultimately, a linguistic system ought to be analysed on its own terms, in the present paper I shall be making references to other well-known varieties of English such as British RP or General American (GA) as a time-saving expedient by focusing on their differences from Singapore English (SE), without any implication that one is 'correct' and the other 'deviant'.

Indebted as I certainly am to previous work in the field (some of which are listed in the Bibliography), I shall not have time to support or disagree with their various analyses, and I shall proceed with as few prior assumptions as possible. As far as possible too, I have resorted to instrumental data to provide objective support for my own analysis, something which few previous investigators have done.

Describing the phonology or sound system of a language (or, more precisely, dialect of a language) involves a number of components, including:

(1) An inventory of PHONEMES, or sound segments which contrast with each other;

(2) Conditions governing how segments combine or co-occur with other segments, i.e. the DISTRIBUTION of segments;

(3) Regular and predictable variations that are conditioned by the environment, i.e. ALTERNATION.

In addition, there are higher-level phenomena such as stress, rhythm and intonation, but these are beyond the scope of the present paper.

2. THE VOWEL SYSTEM

One of the major differences between Singapore English and other Englishes lies in their vowel systems. This is not surprising, considering that (unlike consonants) vowels do not involve any contact between two articulators, but are differentiated by various degrees of tongue height and frontness, and by lip-rounding. The tongue may be advanced and raised, as in [i], or lowered, as in [æ], or retracted and raised, as in [u], or lowered, as in [u], but there is an almost infinite number of intermediate possibilities. This is why, more than anything else, vowels set one accent apart from another, and even within the same speech community, vowel qualities fluctuate to some extent from individual to individual.
Though we cannot easily see the position of the tongue in the mouth, we can rely on instrumental measurements, in particular spectrograms, to capture the qualitative differences between vowels. For the sake of those who may not be familiar with its technicalities, let me provide a simple explanation.

Because of the complex shape of the oral cavity in the production of each vowel, caused by various tongue and lip positions, the air resonates at different frequencies all at once, which show up as dark bands of concentrated energy at various frequencies on a spectrogram. The lowest of these is called the First Formant or F1, the Second F2, etc. What is relevant for our purposes is that there is an inverse correlation between F1 and the height of the tongue, namely: the higher the F1, the lower the tongue position, and vice versa. There is also a correlation between the distance between F1 and F2 (call it F2') and the backness of the tongue, namely: the smaller the distance, the more back the tongue is, and vice versa. As an illustration, the frequencies of the first three formants of vowels in General American are given in Figure 1 below (notice that the differences are of the order of over 100 Hz).

FIGURE 1: FORMANT FREQUENCIES OF AMERICAN VOWELS (from Ladefoged 1993)
When F1 is plotted on the vertical axis of a graph, against F2' on the horizontal axis, with zero at the top right hand corner, the configuration of the vowels resembles what is found in traditional vowel charts, which are arranged according to vowel height and backness (see Figure 2).

FIGURE 2: FORMANT CHART OF AMERICAN VOWELS

A spectrographic analysis of the vowels of my Singaporean subject yields the picture given in Figure 3. I have grouped the data on the basis of how their F1 and F2 measurements cluster together, without any preconceptions about possible phonemic contrasts.