

The Phonological System of Singapore English: Features, Origins, and Implications in a Global Context

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Abstract. This review takes a look at and breaks down the phonological system of Singapore English (SgE), known as Singlish, whilst going on to compare it with mainstream Australian English (AusE). Doing this by drawing on research in experimental phonetics, as well as sociophonetics and sociolinguistics, the study identifies the segmental and prosodic features that distinguish Singlish, such as extensive vowel mergers, monophthongisation, dental fricative substitution, consonant cluster simplification, syllable-timed rhythm, and a distinctive intonational system. This review investigates how these features have been shaped by the multilingual environment and substrate influences from other languages in Asia, such as Chinese, Malay, and Tamil, as well as by language policies and identity considerations unique to Singapore. In contrast to the native-speaker norms and stress-timed rhythm of AusE, Singlish demonstrates systematic phonological patterns influenced by its sociolinguistic context. The implications for mutual intelligibility and language pedagogy are discussed, which emphasise the need for metalinguistic awareness and flexible code-switching rather than the elimination of local features, providing references for more effective intercultural communication and language education.

Keywords: Singapore English, Australian English, phonological features, monophthongization, substrate influence, sociolinguistics.

1. Introduction

English spread as the most dominant lingua franca of the world and throughout the process inevitably developed diverse derivatives in different areas. Among all the varieties, Singlish, or to say Singapore English (SgE), is an interesting subject to research. Hugely impacted by the multilingual environment and sociolinguistic context, it is regarded as an “outer circle” variety according to Kachru [1]. Though rooted in colonial dissemination, Singlish has developed unique phonological systems, with which standard Singlish and colloquial variant serve different roles - one in formal occasions and with economic value whilst the other as a symbol of local identity and an outcome of preserving cultural traditions, inheriting the phonological and phonetic features from ethnic mother tongues like Chinese, Malay, and Tamil [2, 3]. SgE’s phonological features reflect its substrate languages, in huge contrast to Australian English (AusE), which is regarded as in the “inner circle” of the English language. AusE, according to researchers, is very close to native-speaker’s norms, especially to Southern British English and New Zealand English but very different from American English dialects [4]. This paper thereby analyses the segmental and prosodic features of SgE, especially in comparison with AusE, to further analyse its relation to language policies, identity, and acoustic evidence [3, 5, 6, 7].

2. Segmental Features

2.1. Vowel System

Compared with AusE, SgE’s vowel system shows a tendency of lower vowel contrast, and the main reasons can be the lack of distinction in vowel length, and multiple vowel categories are frequently merged, which results in a more compressed and simplified phonological feature.

An important feature of the Singaporean English phonology is that vowel pairs that still maintain phonemic distinctions in Australian English have merged in Singlish. Deterding’s early descriptive

study pointed out that vowels in the Fleece and Kit vocabulary set often realised as [i] in Singlish, resulting in almost no distinguishability between words like beat and bit [5]. Similar merging phenomena are also widespread in other vowel categories: the vowels of Goose and Foot tend to [u] merge, making the pronunciations of pool and pull increasingly similar. Also, the vowels of Thought, Lot, and Cloth tend to [ɔ] merge; the vowels of Start, Palm, and Strut merge into [ʌ]. Similarly, the vowel distinction between Dress and Trap is commweakened or even completely lost [5, 8].

Although these merging phenomena have been recognised by most experts, recent acoustic evidence indicates that the actual situation may be more complex than what the earlier studies suggested.

For example, Low's analysis of the inherent spectral variations of vowels indicates that several groups of vowels that were previously considered to have merged still retain certain spectral or duration contrasts [9]. Only the ones like /ae/ and /ε/ show evidence of nearly complete merging. In that case, earlier studies may have overestimated the degree of merging due to excessive reliance on single-point resonance peak measurements; if so, dynamic acoustic analysis methods may provide more accurate results.

Another characteristic of SgE is the general phoneticisation of diphthongs into monophthongs. Research shows that the diphthongs in AusE (such as [eɪ] and [əʊ]) maintain a clear glide, while in SgE, these diphthongs are often realised as more stable monophthongs [e] and [o] [5, 8]. In Low's VISC, the spectral changes of /eɪ/ and /oʊ/ are relatively small, and the acoustic patterns thereby are relatively stable [9]. In comparison, diphthongs like /aɪ/ and /aʊ/ still have resonance peak variations, which means the pronunciation is hence more dynamic.

How to pronounce unstressed syllables is another feature that differs SgE and AusE. SgE tends to retain the complete vowel features at unstressed positions whilst AusE weakens unstressed vowels to [ə] [5]. In function words (such as to, for) and unstressed syllables in polysyllabic words, it can be easy to observe the differences as there would be significant reduction in the degree of vowel weakening.

2.2. The Consonant System

In terms of the consonant system, SgE features its consonant substitution and phonological simplification in comparison to other English variants. Dental fricatives such as /θ/ is often replaced with [t] at the beginning and in the middle of words, and may be realised as [f] at the end of words. Thereby words like "three" and "tree", "then" and "den" may have the same pronunciation in SgE.

The simplification of consonant clusters is particularly evident in the final position of words due to the omission of final plosive, such as "just" being pronounced as [dʒʌs]. This simplification occurs frequently in Singapore English, even when followed by a vowel-initial word.

The use of glottal stop [ʔ] is also a feature of Singapore English. Clear stop consonants /p, t, k/ at the end of syllables are often replaced with [ʔ], such as "put" being pronounced as [puʔ] and "back" being pronounced as [bɛʔ]. Glottal stops may also occur in word positions, such as "water" [5].

In addition, final stop-approximant consonants in words are often devoiced in Singapore English, while the clear stop consonants /p, t, k/ at the beginning of syllables lack aspiration [8]. In contrast, Australian English usually retains strong aspiration in similar environments, such as "pin" being pronounced as [phm].

3. Prosodic Features

3.1. Rhythm and Lexical Stress

There are significant differences in the rhythmic structure between SgE and AusE as well. Australian English is of the stress-timed type, with a rule for the spacing of stressed syllables and non-stressed syllables often being weakened, while Singapore English is more similar to the syllable-timed type, with a more uniform flow of rhythm. Acoustic studies provide evidence for this difference. Ling et al. found through paired variation index (PVI) that the variability of syllable duration in

Singapore English is significantly lower than that in British English, indicating that its rhythm is more regular [10]. Deterding's measurement results also show that the rhythm variability of SgE is much lower than that of British English [11]. Since AusE is also of the stress-timed type, these findings provide a basis for comparing Singapore English and Australian English [4].

This rhythmic difference is caused by multiple phonological processes. In SgE, the weakening of non-stressed syllables is less, and the complete vowel features are often retained, making the syllable duration more stable; secondly, the simplification of the final consonant clusters of words increases the proportion of consonant-vowel-type syllable structures, further strengthening the feature of syllable timing. Therefore, SgE lacks the common stress compression in AusE, and the auditory features are significantly different from the latter.

In terms of stress realisation, SgE is regarded as fundamentally different from British English, especially in the prominence of the final syllable of polysyllabic words. However, Low and Grabe pointed out that this "stress migration" is more of a perceptual phenomenon rather than a true change at the phonological level [7]. Studies have found that the stress distribution in Singapore English is actually highly consistent with that of British English, and the surface differences mainly result from acoustic realisation: the syllable at the end of a phrase in SgE is often prolonged by about 22%, while speakers of British English rarely exhibit this prolongation, and even may slightly shorten the final syllable [7]. In addition, the pattern of pitch (F0) changes is also different - in British English, the syllable after the main stress usually undergoes a significant pitch drop (the "de-emphasis" phenomenon), while in SgE, such a drastic drop is less common, and the pitch drop after the stress is more gradual, and even may remain stable for a period of time. Therefore, the subsequent syllable retains a higher acoustic prominence, and the continuous pitch change and the significant prolongation of the final syllable together create an auditory illusion, making the stress position of SgE seem different from other English variants.

3.2. Intonation

The intonation system of SgE differs significantly from that of traditional British English. The intonation framework of British English usually relies on a single main core stress in each intonation phrase [12]. However, SgE is more flexible and has a boundary-oriented prosodic structure that cannot be explained by traditional methods.

One typical feature is the frequent occurrence of high pitch or "boosted pitch". It is noted that speakers often use raised initial tones when using discourse markers or declarative expressions (such as "actually", "I think") [5]. It shows a different prosodic contour from AusE, whose pitch development trajectory is usually more gradual.

SgE also uses high rising terminal (HRT) in declarative sentences [5]. This rising tone ending, surprisingly, does not indicate uncertainty but instead indicates the continuation of the conversation or the request for the listener to confirm. AusE also uses rising tone endings in certain contexts, but SgE's pragmatic usage is more deeply integrated into daily conversations [4]. In addition, the extensive use of level tones, which is often used to express uncertainty or incomplete information, and also used to emphasise or enhance the pragmatic effect, is also an important factor to consider [13].

Recent phonological studies attempt to model these intonation features from a formal perspective. Chong proposed in the Autosegmental-Metrical framework that SgE can be regarded as a "head and edge prominent" language [14]. Through the model, he identified three prosodic levels above the lexical level: stress phrases, intermediate phrases, and intonation phrases. Among them, the characteristic of stress phrases is that the beginning is a low boundary tone and the end is a high boundary tone [14]. This framework accurately reflects the boundary-oriented and multi-priority nature of Singapore English intonation, and also challenges the traditional prosodic model centred on British English.

4. Sociolinguistic Factors and the Role of Language Contact

When looking at the phonological features of SgE, it is important to factor in that it did not emerge out of thin air but rather was gradually formed in the long process of language contact in the multilingual environment of Singapore. The development of SgE was influenced by the interaction between English and the main local low-level languages. The biggest of these was local Chinese dialects and Malay, therefore it can be factored in that many phonological and suprasegmental features in SgE can be regarded as the result of the cross-linguistic transfer process in a multilingual society.

Multiple segmental features in Singlish are very, very similar to the phoneme arrangement characteristics of local Asian languages. Local Asian languages which include languages such as Cantonese and Bahasa. This is mainly manifested in the basic breakdown of consonant clusters and the merging of numerous vowels which are very consistent with the relatively simple syllable structure in Chinese dialects and Malay. These influences have formed the unique phonological features of Singaporeans. These processes are not isolated phonetic features but reflect the broader structural influences transferred by speakers from the language systems they have used and been familiar with before learning English.

Suprasegmental features in Singlish also show the influence of language contact. Ng believes that the common falling tone pattern at the end of phrases in spoken Singlish (CSE) is more likely to originate from the intonation patterns of Malay rather than the tone influence of Chinese [15]. More specifically, this feature seems to be related to the falling tone at the end of phrases in Bazaar Malay and dialects influenced by Indian English. This is a typical example of prosodic transfer: in the long process of multilingual interaction, the features of one language system are integrated into another language.

The influence of the underlying language is not limited to the phonological level. Bao proposed a broader "systemic substrate explanation" to analyse the formation of Singlish grammar, arguing that certain temporal and aspectual system components in the Chinese system adapt to the morphological structure of English during their transfer to Singlish [16]. Similar transfer processes are also reflected in the phonological level, and the organisational principles of the local underlying language seem to guide the formation of Singlish pronunciation patterns over a long period of development.

The language policy of the Singaporean government has played a crucial role in shaping the development of Singapore English. Singapore implements a bilingual education policy, requiring all students to use both English and the designated "mother tongue" simultaneously, which makes English the dominant language in administrative and social interactions [2, 3]. As English gradually became associated with economic progress and institutionalisation, its widespread use accelerated the process of localisation and ultimately gave rise to Singapore English, a unique language variant.

However, the Singaporean government had also initiated "Speak Good English" movement, attempting to promote internationally recognised standard English. Yet this conflicts with the means of maintaining the identity of the local language as Singlish is an important symbol of unity, informal occasions, and national identity for many Singaporeans. Such tension reflects the debate between the official language ideology and daily language practice.

5. Implications for Mutual Understandability and Language Teaching

Many phonetic and supranational features of Singlish are significantly different from Australian and British English. Studies which are done on this show that the English used by educated Singaporeans can still be understood internationally, despite it having local characteristics.

A foremost specialist on the matter, Deterding, argues that even if the native phonological features are retained, the English used by educated Singaporeans is still always understood by users of other English variants [5]. As the localised case study of Singaporean English demonstrates, that global comprehensibility doesn't really require strict adherence to the pronunciation norms of English. As Deterding pointed out, it is entirely possible to pronounce in the Singaporean way while maintaining

global comprehensibility [5]. This viewpoint is particularly crucial for discussions on language standardisation and language legitimacy in post-colonial English variants.

It is very likely that certain phonological and pragmatic features may also reduce the understanding of international listeners who are not familiar with Singapore English. For instance, the simplification of final consonant clusters or the extensive use of native discourse particles (such as "lah" and "lor") may cause temporary misunderstandings in cross-cultural communication. The unique intonation system of SgE may also lead to ambiguity, especially for users of stress-timed English varieties like AusE.

Meanwhile, these findings have important implications for Singapore's language teaching policies. Attempting to completely eliminate the features of Singlish is neither realistic nor in line with cultural acceptance. Therefore, rather than viewing local phonological features as a language defect, a more effective educational strategy should be to cultivate learners' metalinguistic awareness and cross-cultural transformation abilities [13].

Goh, based on Brazil's discourse intonation framework, emphasises the communicative function of intonation rather than strictly following the norms of native English speakers [13]. If this perspective is adopted, learners can maintain their local language identity in informal situations while switching to more easily understood pronunciation patterns when necessary. Therefore, developing the ability to switch is far more effective than just attempting to completely eliminate the innate features of SgE.

6. Conclusion

Singaporean English has a stable, systematic and continuously developing phonological system, featuring vowel merger and monophthongisation, consonant changes, temporal prosody of syllables, and a unique multi-core intonation system. These are not language deficiencies but are natural results of language contact, underlying language transfer, and historical and social language backgrounds. Comparing Singaporean English with Australian English can help better understand the development process of the phonological system of SgE and promote cross-cultural communication and mutual understanding globally. In language teaching in Singapore and around the world, teaching practices should emphasise the diversity of learners' backgrounds and the flexibility of their transformation abilities, rather than blindly following external standards.

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