

## Added final plosives in Singapore English

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### Introduction

Simplification of final consonant clusters in Singapore English (SgE) has been widely reported (Platt & Weber 1980:50; Deterding & Poedjosoedarmo 1998:158; Low & Brown 2005:131), and it is usually assumed that, in most cases, the last consonant in the cluster is omitted. On the other hand, little work has been done on additional final consonants, except when this involves plural suffixes on uncount nouns such as *informations* and *clothings* (Tongue 1979:50). In fact, the possibility of extra final consonants, apart from those arising from spurious plurals, appears not to have been investigated very much in any variety of English. For example, in her survey of fast speech processes that commonly occur in British and American varieties of English, Shockey (2003) does not mention the possibility of added final consonants. In contrast, extra final vowels have been considered in a process sometimes known as paragoge (Jenkins 2000:34).

Insertion of a [t] between two consonants, sometimes referred to as [t] epenthesis, has been quite widely investigated. Fourakis and Port (1986) report that [t] may occur between the /n/ and /s/ in words like *dense* (making it homophonous with *dents*) in American but not South African English, so it arises as a result of dialect-specific re-timing of the articulators. Clements (1987) also finds that an epenthetic [t] in such instances is a result of re-synchronisation of the various features, including [voice], [sonorant] and [nasal]. Blakenship (1992) reports that, in American English, insertion of a [t] between /n/ and /s/ is most likely to occur at the end of stressed syllables, though it may sometimes occur across a syllable boundary as in *considerable* and even across a word boundary as in *clean state*. More recently Woo and Blakenship (2003) confirm that the occurrence of an epenthetic [t] depends partly on stress,

so that it is more likely to occur in the middle of *census* (with stress on the first syllable) than in *consent* (where the stress is on the second syllable).

A few of these examples, such as *clean state*, involve an extra final consonant, but the studies mentioned above all investigate the insertion before /s/. The current study will investigate insertion of a [t] in other environments, including before a pause.

Setter and Deterding (2003) conducted a preliminary study of extra final consonants in the English of Hong Kong and Singapore. After summarising their findings concerning extra plosives in SgE, the current study, which is based on Lim (2003), extends the investigation by considering the phenomenon in more informal data, involving conversations between good friends. We thereby hope to throw further light on added final plosives and determine if they occur because of hypercorrection or because of the mistiming of the articulators.

### Formal interviews

For the part of their study investigating SgE, Setter and Deterding (2003) investigated the occurrence of extra final consonants in the formal interviews in the NIECSSE. Those interviews are here classified as formal because the students were talking to their academic lecturer (the second author of this paper), in contrast with the conversations between friends that occurred in the informal data discussed below. All instances of added plosives found in the formal SgE data are shown in Table 5.1. (In some of these instances, the [t] might instead be classified as [d], but they are all given as [t] here to avoid subjective judgements about whether they are voiced or voiceless.)

Examples 1 and 2 might be analysed as additional *-ed* suffixes, involving unexpected occurrences of the past tense. However, none of the other final [t]s occurs on a verb, so it would be rather unexpected to find past tense suffixes on the end of words such as *house*, *yes* and *twice* (examples 3, 4 and 5).

Note that all occurrences except for examples 1 and 9 involve a [t] following another alveolar consonant, either /n/ or /s/, so it is tempting to suggest an articulatory explanation. For example, if the velum is raised to close off the nasal passage at the end of /n/ while the tip of the tongue is still in place, and then the tip of the tongue subsequently moves away from contact with the alveolar ridge, a [t] will be the result. However, it is hard to extend this explanation for instances of [t] following /s/: the tongue tip would have to move into firm contact with the alveolar ridge before subsequently moving away for the release of the [t], and there does not seem to be any articulatory logic to why this sequence of events should take place.

Table 5.1: Added final plosives in the NIECSSE  
(Setter & Deterding 2003)

1	I like[t] er fixing up furnitures	(F10-e:20)
2	when I fast, because I abstain[t] from food	(F4-d:07)
3	and renovate my house[t]	(F10-a:10)
4	but in in the old campus yes[t] ... yeah	(F10-g:10)
5	went down there twice[t] ... yeah, twice	(F13-d:05)
6	er have one[t] ... my dad bought one bike	(F13-d:26)
7	yah the trekking is ... was fun[t]	(F13-e:36)
8	whatever has been done[t] in er Germany	(F17-f:08)
9	I, yah, to me[t] I feel that the knowledge would help	(F24-d:44)
10	so it's fun[t] being[k] with them	(F9-f:40)
11	indeed, I mean fun as in[t] ... those kids	(F9-f:31)
12	two days in erm Brisbane[t] ... then we went on to	(M2-d:06)

There is also one instance of an added velar plosive, after *being* in example 10. This seems to lend support to an articulatory explanation, with the tongue remaining in position against the velum after the nasal passage is blocked off at the end of the /ŋ/, and then the tongue subsequently lowering to allow the perception of a plosive being released.

We will now consider what happens in more informal conversational speech, to see what further light can be shed on the phenomenon.

### Informal conversations

In the formal interviews discussed above, the speakers who exhibited most instances of extra final plosives were F9 (with two occurrences of [t]s and one of [k]), F10 and F13 (each with three instances of an added [t]). Informal conversations were recorded with each of these speakers. Speaker F13 (the first author of this paper) talked to her good friends F9 and F10, and then F10 talked to F13. Of course, being the principal researcher, speaker F13 was aware of the purpose of these talks, but the other two did not know why they had been invited to come and make a second recording.

The speech was recorded directly onto the computer in the Phonetics Laboratory at NIE in the same way as the formal interviews, with a microphone placed a few inches from the mouth of the subject. Each five minutes of the conversation was saved in a separate file. Here, reference to a speech sample such as 'iF9-e:150' refers to the informal data of speaker F9, 150 seconds into file e. (For reasons of space, the full conversations are not provided as part of the corpus as distributed on CD-ROM. Only the instances of extra final consonants are included.)

All the conversations lasted for about one hour (so each was saved as 12 separate speech files). These conversations were substantially more informal than the original interviews for two reasons. Firstly, they were all between good friends, rather than students and their academic tutor. Secondly, they lasted for much longer, thereby allowing the participants to relax over the course of the recording. However, speaker F9 seemed to feel less relaxed than F10 or F13. As an indication of this, she used hardly any instances of the particles *ah* and *lah*, while both F10 and F13 used them quite frequently, especially in the later parts of their recordings.

All instances of extra final plosives found in the informal conversations are listed in Table 5.2.

Table 5.2: Added final plosives in the informal data

13	I mellowed down[t] ... and I be ... quite	(iF9-e:150)
14	white cloth hang down[t] and	(iF9-i:108)
15	spent quite a lot of time[t] ... um creating	(iF9-b:202)
16	this ... um hated feature[t] ... about um	(iF9-f:63)
17	the audience will capture[t] ... or get the picture	(iF9-j:75)
18	yet he turned ... astray[t] ... he um	(iF9-k:210)
19	decorative stuff like[t] um photo album	(iF9-c:85)
20	very expensive, it's like[t] er ... the cheapest ride	(iF13-a:54)
21	it seems like[t] um they take life	(iF13-d:107)
22	that's why I chose English[t] as ... the first	(iF13-g:28)
23	mmm selling[k] um decorative stuff	(iF9-c:83)
24	that I was studying[k] ... this	(iF9-c:238)
25	when we were young[k] ... we used to erm	(iF10-e:180)

We can see from Table 5.2 that speaker F9 had seven instances of an extra final [t] (examples 13 to 19), F13 had three instances (examples 20 to 22), and F10 had none. This represents a less frequent occurrence of an added final [t] than for the formal data: speaker F13's three instances in the informal conversation represent one instance every 1,200 seconds, whereas her three instances in the formal interview represent one instance every 100 seconds. Even F9, the speaker with the most occurrences of an added final [t], only exhibited seven instances in the informal conversation, representing one instance every 514 seconds, whereas her two instances in the formal interview represent a frequency of one every 150 seconds.

Note also that, in the informal data, [t] occurs only twice after an alveolar consonant (examples 13 and 14). However, it also occurs after /m/ (example 15), after vowels (examples 16 to 18), after /k/ (examples 19 to 21, all involving the word *like*) and after /ʃ/ (example 22).

In addition, there were three instances of added final [k] (examples 23 to 25), all occurring after /ŋ/.

## Discussion

The data suggest that final [t] occurs less frequently in informal situations. Only speaker F9, who was the least relaxed of the speakers, exhibited many instances of the phenomenon in the informal data, and even she inserted an extra [t] less frequently than in her formal interview.

In the informal data, the occurrence of an extra [t] after a wide range of sounds, including vowels, /m/, /ʃ/ and /k/, suggests that an articulatory explanation will not work. It seems hard to see why mistiming of the articulators or resynchronisation of the phonetic features could result in the occurrence of an extra [t] after a vowel, or after bilabial and velar consonants.

These two findings, that an added [t] is more common in formal data, and that it occurs after vowels and a range of consonants, suggest that it is a spurious final suffix. In the formal data, this extra [t] occurs even at the end of words like *yes* and *twice* where no verbal suffix is expected, and in the informal data, it similarly occurs after *down*, *astray* and *English*. It seems that the speakers are so worried about dropping final suffixes that they add them in unusual places, even on words that cannot possibly be verbs.

The instances of an extra [k] cannot, of course, be analysed as a spurious extra suffix. Roach (2000:66–69) discusses the status of /ŋ/ in some detail, including the possibility that, in words such as *young*, there is an underlying final /g/ which usually gets deleted by phonological rule

in most (but not all) modern varieties of English. Under this analysis, we might regard the occurrence of a final velar plosive as representing a particularly careful style of speech, a style where this phonological rule occasionally does not get implemented. In this respect, it might not be so different from the hypercorrect addition of an *-ed* suffix which gets added in some instances when a speaker is so concerned about dropping suffixes that they get inserted even when their occurrence is rather surprising.

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