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One in Singapore English*

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This paper investigates the grammar and usage of *one* in Singapore English, which exhibits the influence of both Chinese and English, the two dominant languages in the multilingual ecology of Singapore English, as well as the influence of relevant linguistic universals. The grammar of *one* is essentially the grammar of Chinese *de* filtered through the morphosyntax of English *one*. The corpus data show that some *one* forms which are judged acceptable by native-speaker informants have nevertheless low frequency of use. I argue that usage plays an important role in the success of contact-induced grammatical innovation, and propose an exemplar-based model of relexification that provides a satisfactory explanation of the grammatical properties and usage patterns of *one* in Singapore English.

1. Introduction

Recent work on creole genesis recognizes three linguistic factors: the substratum, the superstraum, and language universals. Scholars tend to overemphasize one over the other two. Substratists see contact languages as relexified versions of the substratum language, whereas superstratists see them as dialects of the superstratum language adapting to new cultural and linguistic environments. The universalists place their explanatory burden on linguistic universals, seeing contact languages as arising from the effect of parametric re-setting under contact conditions. Part of the reason for this fractious state of debate on the origin of contact languages has to do with the nature of contact languages themselves — there is empirical evidence in support of the roles of each of the three factors. Unfortunately, to my knowledge, there has been little work to bring all three factors to bear on the emergence of a given grammatical neologism. In this paper, I analyze the grammar of *one* in Singapore English, which has Chinese as its main substratum language[1] and English as its superstratum. I will show that the grammar of *one* in Singapore English is essentially the Chinese *de* system sieved through English morphosyntax and universal markedness constraints. The frequency of use, however, mirrors that

of English *one*, rather than Chinese *de*. I propose an account of these facts along three lines of argument. First, following Bao (2005), I argue that substrate transfer targets an entire grammatical subsystem in the substratum language, and the exponencing, or 'fleshing out,' of the transferred system is subject to the grammaticality requirement of the language that contributes the morphosyntactic materials. Second, I develop a usage-based model of relexification, or exponencing, on the basis of exemplar theory (Johnson 1996, Pierrehumbert 2001, Bybee 2001, 2002, 2006). This model provides a simple explanation of both the structure and use of Singapore English *one*. Third, I show that marked structures may be generated as part of the transferred system, but they do not develop into robust features in the emerging grammar of a contact language.

2.   The data

In this section, we first consider the grammar of *one* in Singapore English. For comparative purposes we will discuss English *one* and Chinese *de* as well. Almost all of the works on *one* in the current literature are based on field notes and on the intuitive judgment of native-speaker informants. We will continue this practice. We then examine the frequencies of the constituents, or frames, in which *one* is used, as reflected in the PRIVATE DIALOGUE subcorpus of the Singaporean portion of the International Corpus of English (ICE-SIN).[2] Again, we will compare the statistical profile of Singapore English *one* with those of English *one* and Chinese *de*.

   Against the backdrop of the more prestigious and more established English and Chinese, Singapore English is in constant flux, torn between the two contributing languages which are still active in the contact ecology. Its grammar exhibits enormous internal variation, and in this sense resembles the emergent grammar of Hopper (1987). For methodological convenience, we assume that the grammars of English *one* and Chinese *de* are stable, and their usage patterns are determined by communicative needs unimpeded by structural factors. Against these two stable systems we examine the structural properties and usage patterns of the stabilizing Singapore English *one* system. According to the 2000 Census of Population, a sizable segment of the Singaporean population speaks Singapore English as the main home language, and the acceptability judgment of the *one* forms is robust even among casual informants. The intuition and corpus-based data are neither mutually exclusive nor contradictory. They are complementary, and help shed light on the dynamics of contact-induced grammatical innovation in a multilingual ecology. While the corpus approach does not add new insight into the structural range of *one*, which can be established on the basis of native-speaker intuition, it nevertheless reveals how *one* is used in various structural configurations. The usage data

are important for understanding the stabilization of the *one* system in Singapore English, and the roles of the contributing languages and the relevant linguistic universals in the process.

We focus our attention on the surface configurations of expressions that contain *one*. By 'surface' I mean the way *one* is actually used in casual speech, regardless how it may be analyzed in some theoretical framework. The categorical status or syntactic function of *one* does not concern us. This methodological move is especially important for English *one* and Chinese *de*. Unlike *one*, *de* is neither a pronominal nor a free form, and has no lexical meaning of its own. The English *large one* and its Chinese equivalent *da de* may be given different theoretical analyses, but they exhibit the same surface word order and have the same meaning. For the creator-developer of an emerging contact language, surface word order is more important than theoretically-informed analysis. For exemplar theory, which is the basis of our analytical approach, surface orientation is of fundamental importance.

2.1 The grammar of *one*

The word *one* is a pronominal in English. In Singapore English, it has two major uses, as a pronominal and as a marker of emphasis. The third use, as a relative pronoun, has been argued for in Alsagoff and Ho (1998). But this is relatively minor, for reasons that will be made clear in Section 2.3. The two major uses are exemplified in (1). (Unless otherwise stated, all data are cited from the ICE-SIN, and will be glossed only when the meanings are opaque; A, adjective; N, noun; P, pronoun; XP, phrases and clauses).

(1)		*frame*		*example*
	a.	A-*one*		large *one*
	b.	N-*one*		silk *one*
	c.	P-*one*		my *one*
	d.	XP-*one*	i.	PP-*one*
				from Thailand *one*
				'one from Thailand'
			ii.	VP-*one*
				showing in Cathay *one*
				'one which is showing in Cathay'
			iii.	S-*one*
				those wear black *one*
				'the ones who wear black'
	e.	XP-*one*	i.	I always use microwave *one*
				'I ALWAYS use microwave!'

ii.   Wah like that *one*.
      'Wow, LIKE that!'
iii. Very rough *one*, you know.
      'Very ROUGH, you know.'

In addition, as in English, *one* can be post-modified by a phrase or a clause:

(2) *frame*   *example*
     one-XP   that *one* on the cabinet
                    the *one* who comes to our house

I use the term FRAME to refer to the syntactic type of the phrase in which *one* occurs. So *large one* is a token of frame A-*one*, *silk one* a token of frame N-*one*, and so on. Frames (1a–d) and (2) exemplify *one* as pronominal, and (1e) as marker of emphasis. All the *one* forms in (1) and (2), with the exception of (1e), are NPs headed by *one*. The forms in (1e) belong to the category of the phrase which *one* attaches to — S in (1e-i), PP in (1e-ii), and AP in (1e-iii). This is the crucial categorial difference between the pronominal frame XP-*one* (1d) and the emphatic frame XP-*ONE* (1e). In surface structure the two frames are identical, and the categorial ambiguity can be resolved through intonation and context of use. In English, (1a–c) and (2), especially (1a), are the canonical structures of *one* as pronominal, and (1d, e) are ungrammatical. It is worth noting that all the frames of *one* in Singapore English, including (1d, e), follow the English morphosyntax that governs *one*'s surface order — *one* occurs at the end of the phrase.

I include prepositional phrase (PP), verb phrase (VP) and clause (S) under the label XP for two reasons. First, as we shall see in Section 1.2, there is too little instantiation in ICE-SIN of the frames PP-*one*, VP-*one* and S-*one* to keep them separate. Second, the structural analysis of a given string is often non-unique. (1e-i, ii), for example, may be assigned two structures each, as shown below:[3]

(3) a.   showing in Cathay *one*
          i.   [$_{NP}$ [$_{VP}$ showing in Cathay] one]
          ii.   [$_{NP}$ [$_S$ *e* showing in Cathay] one]
     b.   those wear black *one*
          i.   those [$_{NP}$ [$_{VP}$ wear black] one]
                'those, the ones who wear black'
          ii.   [$_{NP}$ [$_S$ those wear black] one]

The semantic difference is rather subtle. By grouping all phrasal categories under the label XP, we avoid the problem of multiple analyses.

The Chinese origin of *one* is not in doubt. An English-Chinese bilingual speaker in Singapore will without hesitation identify Chinese *de* as the source of Singapore English *one*. In the scholarly literature *one* has been discussed extensively;

see Gupta (1992a), Alsagoff and Ho (1998), Brown (1999), and Lim (2004). Gupta (1992a) gives an especially careful analysis of *one*, and its source in Chinese, based on data that she collected from Singaporean children's speech. The present study follows Gupta's work, drawing data from ICE-SIN instead.

In Chinese, *de* occurs in the same set of frames as Singapore English *one*, with the exception of *one*-XP, as shown in (4).

(4)   *frame*   *example*
   a. A-*de*   da de
                       big *de*
                       'large one'
   b. N-*de*   si   de
                       silk *de*
                       'silk one'
   c. P-*de*   wo de
                       I   *de*
                       'mine/my one'
   d. XP-*de*   i.   PP-*de*
                            cong Taiguo   lai   de
                            from Thailand come *de*
                            'that which is from Thailand'
                 ii. VP-*de*
                            zai Cathay fang de
                            in Cathay show *de*
                            'that which is showing in Cathay'
                 iii. S-*de*
                            naxie chuan hei   de
                            those wear   black *de*
                            'those who wear black'
   e. XP-*DE*   i. wo zongshi yong weibolu   de
                            I   always use   microwave *de*
                            'I ALWAYS use a microwave oven.'
                 ii. Xiang na   yang de.
                            like   that type *de*
                            'LIKE that!'
                 iii. hen chuzhao de
                            very rough   *de*
                            'Very ROUGH.'

As in Singapore English, all frames are noun phrases except the emphatic frame (4e).[4] Descriptions of the *de* construction are readily available in English-medium Chinese linguistics literature; see, among many others, Chao (1968), Li and

Thompson (1989), and Matthews and Yip (1994). The striking structural convergence between Singapore English *one* and Chinese *de* cannot arise accidentally, and provides strong empirical evidence for the role of the substratum. It is worth noting that the entire set of *de* frames is transferred to Singapore English to be realized as *one*. This provides strong empirical evidence that substratum transfer is systemic, involving an entire grammatical subsystem. For further evidence of the systematicity of substratum transfer, see Bao (2005) and Bao and Lye (2005).

The apparent *de-one* convergence, however, hides important differences between the two systems in structure and frequency. We will discuss the frequency issue in Section 1.2. Structurally, all *de* frames, except the emphatic frame (4e), can be used as pre-modifiers in Chinese, as illustrated below:

(5)   a.   da *de* shu
           big *de* book
           'big book'
     b.   si   *de* shu
           silk *de* book
           'silk book'
     c.   wo *de* shu
           I   *de* book
           'my book'
     d.   cong Taiguo   lai   *de* shu
           from Thailand come *de* book
           'book from Thailand'
     e.   *wo zongshi fan   ta   DE shihou
           I   always   bitch she *de* time
           'the time I ALWAYS bitch her'

(4e) would be acceptable if *de* is not interpreted as emphatic, in which case it is an instance of frame XP-*de*.

Singapore English *one* frames cannot pre-modify nominal heads:

(6)   a.   *large *one* durian
     b.   *silk *one* blouse
     c.   *my *one* auntie
     d.   *from Thailand *one* durian

Native-speaker intuition is strong on the ill-formedness of these forms. We propose (7) as a nonviolable constraint in the grammar of Singapore English:

(7)   *XP-*one* N

Constraint (7) reflects the morphosyntax of *one* in English. We will discuss the corpus basis of this constraint in the next section.

The grammars of *de* and *one* are summarized in (8).

(8)		Chinese	Sing Eng	English
	a. Pronominal	yes	yes	yes
	b. Emphasis	yes	yes	–
	c. Pre-modification	yes	–	–

For ease of comparison I use the label 'pronominal' to refer to Chinese *de* as well. Although *de* is not a pronominal, its relevant uses parallel those of the pronominal *one*. It must be acknowledged, however, that English *one* and its Singapore English counterpart differ in the range of felicitous frames.

2.2 The use of *one*

The Singapore English *one* frames in (1) and (2) are established on the basis of native-speaker intuition, and can be observed in casual speech by keen observers. Although they are all judged acceptable, the frames do not have the same frequency of use. Table 1 displays counts of the frames in the PRIVATE DIALOGUE subcorpora of the Singaporean and British components of the International Corpus of English.

Table 1. Counts of *one* in the PRIVATE DIALOGUE subcorpora, ICE-SIN and ICE-GB.

	frame	ICE-SIN		ICE-GB	
		token	percent	token	percent
a.	A-*one*	156	28.1	123	38.6
b.	N-*one*	37	6.7	18	5.6
c.	P-*one*	3	0.5	5	1.6
d.	XP-*one*	6	1.1	0	0.0
e.	XP-*ONE*	74	13.3	0	0.0
f.	Others	280	50.4	173	54.2
	Total	556	100.0	319	100.0

The percentage figures are based on the total number of tokens of *one* as pronominal, 556 in ICE-SIN, and 319 in ICE-GB. *Others* includes tokens that do not fall in any of the preceding frames, eg. *this one*, *that one*, and the bare *one*. These forms constitute half of all tokens in both the Singaporean and British corpora, 50.4% vs. 54.2%. Singapore English displays a much higher incidence of usage in the *one* frames than British English; most of the additional tokens, however, come from the *others* category. Like N-*one*, the demonstrative-*one* frame is found in

both English and Chinese (*zhe-ge de* 'this one', *zhe-xie de* 'these ones'). The bare *one* frame is obviously derived from English, since Chinese *de* is not a free form. Excluding instances of the bare *one*, the *others* frame can be subsumed in N-*one*. We set up the *other* category to highlight the way lexical words are used in the *one* construction.[5]

As we have seen earlier, Singapore English *one* and its Chinese source *de* are not point-by-point identical in structure. They are not identical in usage pattern, either. Since there is no directly comparable corpus in Chinese, we use two novellas as our database. Table 2 displays the data of *de* in the novellas:[6]

Table 2. Counts of *de* in two Chinese novellas.

	frame	token	percent
a.	A-*de*	1181	19.4
b.	N-*de*	1402	23.0
c.	P-*de*	684	11.2
d.	XP-*de*	1322	38.1
e.	XP-*DE*	402	6.6
f.	Others	102	1.7
	Total	6093	100.0

The *others* category includes tokens of *de* used in formulaic expressions, such as the affirmative *shi-de* and the expletive *ma-de*. There is no instance of the bare *de*. Since *de* is a grammatical morpheme in Chinese, the statistical profile in Table 2 reflects the normal productivity of each frame, unconstrained by the kind of structural factors that constrain the *one* frames in Singapore English. The incidence of usage is more evenly distributed among all frames, which explains why the frequency of the emphatic frame XP-*DE*, expressed in percentage, is only half that of its Singapore English counterpart XP-*ONE*. Both frames exhibit normal productivity. We attribute the robust use of the emphatic frames to the extralinguistic communicative needs that call for the emphatic construction.

The usage profiles of *de* and *one* cannot be directly compared. Even though the two morphemes encode the same grammatical construction, as we would like to argue, they are subject to different morphosyntactic forces in their respective languages. There is little structural parallel between Chinese *de* and English *one*. Chinese *de* is not a pronominal, and performs grammatical functions beyond those required of a pronominal. However, the usage profile of *de* is important for the claim that Singapore English *one* is derived from Chinese *de*. The Chinese data are reflective of the general usage pattern of the *de* frames, and are therefore useful as a point of reference for our understanding of the *one* system in Singapore English.

2.3 Summary

To facilitate comparison, we list the frequencies of *de/one* in Table 3.

Table 3. Frequencies of *de* and *one*, in percentage.

	frame	Chinese	Sing. Eng	English
a.	A-*one*	19.4	28.1	38.6
b.	N-*one*	23.0	6.7	5.6
c.	P-*one*	11.2	0.5	1.6
d.	XP-*one*	38.1	1.1	–
e.	XP-*ONE*	6.6	13.3	–

From the data summarized in Tables 1 through 3, we can see that the usage pattern of Singapore English *one* is determined by the interplay between Chinese and English, the respective substratum and superstratum languages. Returning to (8), which summarizes the *one* frames in English, Chinese and Singapore English, we can establish three logically possible correlations between structure and use. When the frames are convergent in structure, they are accepted as grammatical by native speakers of Singapore English and exhibit normal productivity. When the frames are divergent in structure, we have two scenarios. First, they are accepted as grammatical by native speakers but exhibit low productivity. Second, they are rejected as ungrammatical by native speakers and are therefore not used at all in daily interaction. We list these properties in (9).

(9)   *structure*   *intuition*   *productivity*
    a.   convergent   acceptable   normal
    b.   divergent   acceptable   low
    c.   divergent   unacceptable –

We take structural divergence to mean that the form is judged acceptable in the substratum language and the contact language, but not in the superstratum language. We define a frame's productivity narrowly in terms of the rate of repetition of that frame instantiated in a reasonably large corpus. For our purpose, the repetition rates of the ICE-GB *one* frames in Table 1 and of the Chinese *de* frames in Table 2 reflect the normal productivity of these frames, which are not affected by the respective morphosyntax of *one* in English and of *de* in Chinese. Against these stable productivity patterns, we examine how repetition affects the productivity, hence stabilization, of the various frames of the emergent *one* system in Singapore English.

3.   The explanation

An adequate analysis of *one* should shed light on the following three salient properties. First, we need to provide an explanation for the source of the native-speaker intuition on the basis of which some *one* frames are accepted while others are rejected. Second, the productivity profile of the frames, as measured by frequency of use, needs principled explanation. Finally, we need to account for the normal productivity of the emphatic frame XP-*one* and the low productivity of the pronominal frame XP-*one*. Both frames are ungrammatical in English.

From the preceding discussion it is clear that the grammar of *one* in Singapore English cannot be attributed to a single source. It overlaps with Chinese in structure, modulo the effect of English morphosyntax, and with English in frequency, provided that the frames are shared in both languages. A purely substratist account underexplains important aspects of the grammar. The proper analysis needs to pay attention to the mechanism of substratum transfer and of morphosyntactic exponencing — the way the transferred grammatical system is expressed in the emergent contact language. The explanation I argue in the following pages essentially follows the one in Bao (2005) and Bao and Lye (2005), and runs like this. The entire cluster of *de* frames is transferred from Chinese to Singapore English, to be expressed by the English pronominal *one*. Substratum transfer, in other words, is systemic. The exponence of the transferred system is subject to the grammatical requirement of the language that provides the morphosyntactic materials, flushing out, at varying degrees of thoroughness, those elements in the transferred system that cannot be expressed felicitously. The *one* cluster of Singapore English is the *de* cluster of Chinese filtered through the morphosyntax of English. Linguistic universals ensure that 'crazy' elements of the transferred cluster do not develop into robust features. I now turn to the specifics of the argument.

3.1 The substratum

Substratum transfer has long been invoked as a mechanism of creole genesis in contact linguistics; see the survey in Lefebvre (1998). Most substratist studies tend to focus on matching grammatical neologisms in contact languages with equivalent structures in the substrate language or languages, with little regard to grammatical system or the structuredness of language (cf. Givón 1979, Bickerton 1981). Given the contact conditions of Singapore English, especially the relatively high degree of homogeneity of the linguistic substratum, we would expect substratum transfer to exhibit the effect of structuredness. The ready access to the substratum language enables the creator-developer of the contact language to approach feature transfer in a systematic, rather than piecemeal, fashion. We assume that

substratum transfer is subject to what Bao (2005: 258) calls System Transfer, shown below:

(10)   System Transfer
Substratum transfer involves an entire grammatical subsystem.

This Optimality Theory-style constraint, which is violable, requires that we examine not only features which transfer, but also features which are related but nevertheless fail to transfer. The locus of empirical enquiry and theoretical explanation shifts from individual features to feature clusters that can be specified in a general theory of linguistics, and to the robustness of the transferred clusters in structure and in usage.

Given System Transfer, the attested *one* frames of Singapore English shown in (1) are not at all surprising. The intuition that supports the frames derives from the Chinese *de* construction. By demanding faithful compliance with the grammar of the substratum language, System Transfer predicts convergence in grammatical structure between the contact language and its substratum, and rules out divergence. However, the grammar of a contact language is seldom an exact replica of the grammar of its substratum language, and in the case of the *one* construction, the systemic substratist explanation provides only a partial account. Other forces must have worked in influencing the development of *one* in Singapore English. We turn to the superstratum language and linguistic universals for clues.

3.2 The superstratum

The structural divergence in the grammar of *one* between Singapore English and Chinese is not random, and can be readily explained in terms of English grammar. A transferred feature must be expressed by suitable relexifying materials — the exponent of the said feature. And it is reasonable to assume that the morphosyntactic exponence is subject to the grammar of the superstratum language which contributes the relexifying material. This is the content of the constraint Lexifier Filter, proposed by Bao (2005). Like System Transfer, Lexifier Filter is violable. The need to meet the requirement of System Transfer and Lexifier Filter is especially strong in a linguistic ecology where the substratum and superstratum languages are easily accessible to the creator-developer of the contact language, as is the case throughout the history of Singapore English. The two constraints are antagonistic, and often one constraint is met at the expense of the other constraint. Substratum-derived neologisms stabilize amidst tension between the need to be faithful to the substratum language, as required by System Transfer, and the need to be faithful to the superstratum language, as demanded by Lexifier Filter.

In Singapore English *one*, we see the influence from English in structure as well as in usage. As we have argued, the grammar of Singapore English must contain constraint (7). This constraint rules out expressions of the form [$_{NP}$ XP-*one* N], which is neither accepted by native speakers nor attested in ICE-SIN. In English, the phrase-final position is favored, except for the frame with a post-modifying phrasal category (eg. *one* PP: *the one in the canteen*). Constraint (7) is modeled on the English *one* frames that are used most frequently, such as A-*one*; see Table 3. We put forth the following hypothesis:

(11)   If a constraint C emerges in the grammar of a contact language due to influence from the superstratum language, then C is modeled on forms which are frequently-used in the superstratum language.

(11) captures the role of frequency in the emergence of grammar. It is not new, and has long been recognized in the contact linguistics literature as a condition of substratum transfer; see, among others, Mufwene (1990a, b, 1991) and Siegel (1999). Other than serving as the empirical basis for the postulation of constraint (7), English also provides the usage pattern for *one*. As can be seen from Table 3, the frequency profile of the *one* frames in Singapore English mirrors that in English.

English influences the usage pattern not only of the *one* frames which are grammatical in English, but also of the *one* frames which are ungrammatical. Of the five frames shown in Table 1, A-*one*, N-*one* and P-*one* are attested in both English and Singapore English, and they exhibit similar frequencies. The pronominal frame XP-*one* and the emphatic frame XP-ONE are not grammatical in English. The low frequency of XP-*one* can be seen as empirical evidence in support of the active role of English in determining the characteristics of the emergent grammar. Note that XP-*one* is accepted by native speakers. The disconnect between intuition and productivity is not attested in Chinese *de*, nor, needless to say, in English *one*. We explain the disconnect by attributing the *one*-related intuition to Chinese, and the usage pattern to English. I will comment on the surprisingly normal productivity of the emphatic frame XP-ONE shortly.

In a contact ecology such as Singapore English's, the robustness of substratum-derived grammatical features is sensitive to the complex tripartite relationship among the contributing languages: the substratum language, the superstratum language and the contact language itself. In evaluating a substratum-derived feature against the grammatical constraints of the competing languages, there are three logically possible outcomes. First, the feature does not violate any known constraint in the respective grammars. This is the situation which encourages transfer (Weinreich 1964, Siegel 1999). Second, the feature violates the grammatical constraints of the superstratum language. We call this type of violation WEAK, and the feature WEAK VIOLATOR. Third, the feature violates those constraints, such

as (7), that must be postulated for the grammar of the contact language. We call this type of violation STRONG, and the feature STRONG VIOLATOR. By definition, the feature does not violate constraints of the substratum language. The correlation between constraint violation and the level of productivity of the feature in the contact language is summarized in (12).

(12) | | *violation* | *productivity* | *frame* |
|---|---|---|---|
| a. | none | normal | A-*one*, N-*one*, P-*one* |
| b. | weak | low | XP-*one* |
| c. | strong | – | *XP-*one* N |

(12) instantiates the filtering function of the superstratum language, which imposes its grammatical requirement on the exponence of substratum features, and at the same time influences the usage pattern of the exponenced features.

The productivity of the pronominal frame XP-*one* is further limited by the English-derived *one*-XP (eg. *the one in the canteen*). Table 4 shows that Singapore English does not differ from English in the use of *one*-XP.

Table 4. Frequencies of XP-*one* and *one*-XP in the PRIVATE DIALOGUE subcorpora, ICE-SIN and ICE-GB.

	ICE-SIN		ICE-GB	
	token	**percent**	**token**	**percent**
one-XP	121	21.8	76	23.8
XP-*one*	6	1.1	–	–

As we have seen in Table 2, XP-*de*, the Chinese source of XP-*one*, exhibits normal productivity. The twin obstacle of weak violation and competition prevents XP-*one* from becoming a feature with normal productivity in Singapore English. We will return to the feature in Section 2.3.

We now examine the emphatic frame XP-ONE. Like its pronominal counterpart XP-*one*, it is a weak violator. Against the low frequency of weak violators, the normal productivity of the emphatic frame cannot be explained in terms of the correlation displayed in (12). It can nevertheless be understood from the perspective of the active system of particles in Singapore English.

Singapore English has a robust system of particles, see Kwan-Terry (1978), Platt and Weber (1980), Tay (1982), Platt and Ho (1989), Gupta (1992a, b) and Lim (2004), among others. The particles appear at the end of sentences or sentence fragments, and express various pragmatic meanings, which include assertiveness (*lah, leh*), speaker uncertainty or hedging (*meh*), and compromise (*lor*). These particles, exemplified in (13), are commonly used in informal context.

(13)   a.   I suppose that's part of life *lah*.
     b.   But today got some rice left *leh*
     c.   It sounds like that *meh*
     d.   You use the Chinese pickles *lor*

Not surprisingly, they are represented in the Private Dialogue subcorpus of ICE-SIN. Of the four particles exemplified in (13), *one* ranks third, after *lah* and *lor*, as shown in the frequency counts displayed in Table 5.

Table 5. Counts of four particles and *one* in the Private Dialogue subcorpus, ICE-SIN

particle	token
lah	1606
lor	140
leh	38
meh	16
one	74

The robustness of the emphatic frame XP-*one* is due to the fact that *one* is now a component of the particle system of the language. Despite the weak violation, it has grammaticalized to the extent that it loses its pronominal meanings and assumes the new function as emphasis marker. It is now free of the constraining effect of English morphosyntax.[7]

3.3 Linguistic universals

One puzzle remains, however. From the perspective of grammaticalization, if *one* can freely develop into a marker of emphasis in XP-*one*, overcoming the frame's weak violation, what prevents it from developing into a relative pronoun in XP-*one*? If *one* were a relative pronoun, the frame XP-*one* could be interpreted as a headless relativized NP, with the structure shown in (14a), and as a relative clause in (14b, c):

(14)   a.   Structure of XP-*one* as relative clause
       $[_{S'} [_{XP} \dots] \; one]]$
     b.   Structure of N XP-*one* as relativized NP
       $[_{NP} N [_{S'} [_{XP} \dots] \; one]]$
     c.   Structure of XP-*one* N as relativized NP
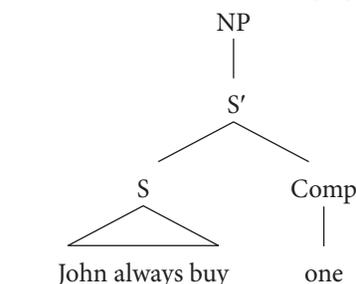 $*[_{NP} [_{S'} [_{XP} \dots] \; one] \; N]$

(14c) is ruled out by constraint (7). (14a, b) remain possible analyses if *one* is to be analyzed as a relative pronoun.

Alsagoff and Ho (1998) propose precisely such an analysis, treating *one* as a relative pronoun and [$_{S'}$ XP-*one*] as a relative clause. The data in (15) are cited from Alsagoff and Ho (1998). Relativized noun phrases are set in italic.[8]
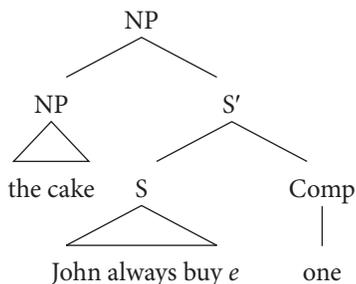
(15)   a.   *The cake John always buy one* very nice.
            'The case that John always buys is very nice.'
       b.   *The man sell ice-kacang one* gone home already
            'The man who sells ice-kacang has gone home.'

Using (15a) as an example, the headless and headed relativized NPs can be assigned the following structures, which for clarity I present in tree format:

(16)   a.   Headless relativized NP (= (14a))

```
                        NP
                        |
                        S′
                      /    \
                    S        Comp
                  /   \        |
            John always buy   one
```

       b.   Headed relativized NP (= (14b))

```
                      NP
                    /    \
                  NP      S′
                 /  \    /   \
            the cake  S    Comp
                    /   \    |
         John always buy e   one
```

In this analysis, *one* loses its pronominal meaning, and assumes the function of a relative pronoun, occupying the Comp position in the tree. Like *one* as emphatic marker, *one* as relative pronoun should escape the effect of English morphosyntax and exhibit normal productivity. This, however, has not happened. XP-*one* has low productivity; see (12b).

According to Alsagoff and Ho (1998), the putative Singapore English relative clause, displayed in (14a, b), is a mixture of the relative clauses of Chinese and English.[9] This can be seen clearly if we compare the relevant structure of the relativized NPs, shown in (17) (S, sentence, R, relative pronoun, N, nominal head).

(17) Relativized NPs in Chinese, English, and Singapore English:
    a.   Chinese: [S-R]-N
    b.   English: N-[R-S]
    c.   Singapore English: N-[S-R]

These are exemplified below:

(18) a.   [wo mai *de*] shu
         I   buy *de* book
    b.   the book [*that* I bought]
    c.   the book [I buy *one*]

The Singapore English relativized NP gets the relative clause [S-R] from Chinese, and head-initialness from English.

Alsagoff and Ho's (1998) analysis is plausible. It is, however, based largely on native-speaker intuition. Although a keen observer may come across expressions like those in (15), noun phrases of the form [XP-*one*] are rare, and those of the form [N XP-*one*] are rarer still. In ICE-SIN, [XP-*one*] is attested, albeit in small numbers (see Table 1), but [N XP-*one*] is not found at all. In Section 2.2 we attributed the intuition-usage disconnect to two factors: XP-*one*'s weak violation and competition from the alternative frame *one*-XP, in which *one* remains a pronominal. This explanation fails to take into account the likelihood of internal development through grammaticalization. If *one* can overcome weak violation to become an emphatic marker in XP-*ONE*, one would expect that it could evolve into a relative pronoun in XP-*one*. Other forces are at work that prevent *one* from developing into a robust relative pronoun.

The contrast in robustness between XP-*ONE* and XP-*one* reveals the role of linguistic universals in the development of linguistic neologisms. The grammaticalization of *one* into an emphatic marker violates no known universal. It joins the active system of particles, and does not affect the structural integrity of the constituent to which it attaches. This is not the case if *one* were to develop into a relative pronoun, as we shall now see.

In the literature on linguistic universals (Greenberg 1963; Comrie 1989; Hawkins 1990; Dryer 1991, 1992; Croft 2003), it has been noted that the position of the relative pronoun within the relative clause is correlated with the basic word order of the language. Hawkins (1990) shows that for SVO languages, the relativized NPs are head-initial (NRel), and the complementizer, i.e. the relative pronoun, is positioned before the clause (CompS). The statements in (19) are due to Hawkins (1990: 225):

(19) Relativized NP
    a.   VO languages: $[_{NP}$ N S$'$] only
    b.   OV languages: $[_{NP}$ N S$'$] or $[_{NP}$ S$'$ N]

Comp positioning
c. VO languages: [$_{S'}$ Comp S] only
d. OV languages: [$_{S'}$ Comp S] or [$_{S'}$ S Comp]

The same results are obtained in Dryer's (1991, 1992) work. Incidentally, in a corpus of 17 languages spoken in Southeast Asia and Oceania that Dryer (1992) studies, only one language, Chinese, has SVO word order and head-final relativized NP (RelN). We display the correlation in the tetrachoric table below (cf. Croft 2003):

(20)   RelN   NRel
    OV   2   2
    VO   1   12

The same results are obtained in a corpus of 60 languages from all geographic regions (Dryer 1992).

On the positioning of the complementizer, Dryer (1991) expresses the same position as Hawkins (1990):

> …all of the languages that I am aware of with clause-final complementizers are V-final. … SVO languages apparently share with V-initial languages the property of never having clause-final complementizers. (p. 460)

In OV languages, the headedness of relativized NPs and the positioning of the relative pronoun cannot be predicted. In VO languages, these two properties are predictable. The statements in (19) can be re-cast as the logical implications in (21):

(21) a.   SVO → [$_{NP}$ N S′]
     b.   SVO → [$_{S'}$ Comp S]

Following Croft (2003), we consider the pair SVO and NRel and the pair SVO and CompS as typologically unmarked, and the pair SVO and RelN and the pair SVO and SComp as marked. Typologically unmarked pairs obey implicational universals.

The two implicational universals, especially (21b), are crucial for our understanding of why the putative relative clause XP-*one* does not have the same degree of productivity as the emphatic frame XP-*ONE*. Now, the basic word order of Singapore English is SVO, like that of Chinese and English. If *one* were to develop into a relative pronoun, XP-*one* would have the structures displayed in (22).

(22) a.   N [XP-*one*]
     b.   [XP-*one*] N

In Section 2.2, we ruled out (22b) because it violates the English-derived constraint (7). (22b) also violates the implicational universal (21a), hence is typologically marked. (22a) does not violate (21a), but the putative relative clause [XP-*one*]

violates (21b), with *one*, now analyzed as a putative relative pronoun, occurring after the clause. N [XP-*one*] is typologically marked.

Frame XP-*one* is in an awkward predicament. If *one* develops into a relative pronoun, [XP-*one*] is a typologically marked relative clause; if *one* remains a pronominal, XP-*one* is a weak violator. Either way the frame will be low in productivity. English and the implicational universals (21) conspire to ensure that XP-*one* does not develop into a robust grammatical feature of Singapore English.

4.　An exemplar-based approach to relexification

We now turn to relexification, the mechanism that turns Chinese *de* into Singapore English *one*. In generative linguistics, the representation of lexical entry specifies the idiosyncratic phonological, syntactic, and semantic properties (Chomsky 1981). Work on the formal aspect of relexification has been heavily influenced by this conception of the lexical entry. For Muysken (1981) and Lefebvre (1998), relexification is a process which re-combines the syntactic and semantic properties of a substratum word with the phonological property of its superstratum counterpart to form the lexical entry for the contact language. The process of relexification can be written as follows:

(23)　$\{\text{Phon}_i, \text{Syn}_i, \text{Sem}_i\} + \{\text{Phon}_j, \text{Syn}_j, \text{Sem}_j\} \rightarrow \{\text{Phon}_j, \text{Syn}_i, \text{Sem}_i\}$

Lefebvre (1998) calls this process relabeling. A substratum lexical item is relabeled with the phonological shape of its exponent from the superstratum language.

This account places the lexical entry at the core of relexification. For content words, i.e. nouns, verbs, adjectives and adverbs, the recombination process is straightforward. As an illustration, consider Singapore English *win* and Chinese *yin*, exemplified below:

(24)　a.　John won Bill.
　　　　　'John defeated Bill.'
　　　b.　Zhangsan yin-*le*　　Lisi
　　　　　Zhangsan win-ASP Lisi
　　　　　'Zhangsan defeated Lisi.'

From the perspective of relexification (23), Singapore English *win* inherits the pronunciation of English *win*, but the lexical semantics — the syntactic and semantic properties — of Chinese *yin*. More examples of relexification can be found in Muysken (1981), Keesing (1988), and Lefebvre (1998), among others.

The lexicalist approach to relexification, encapsulated in (23), runs into problems in two areas: function words and frequency effects. Relexification of function

words is tricky. Chinese *de* is not a pronominal; its primary grammatical function is to connect two constituents A and B into a larger one, A *de* B. Chao (1968) classifies it as a particle. When B, the head, is missing, *de*'s function resembles some of the functions of English pronominal *one* (*da de* vs. *large one*; but *da de shu* vs. **large one book*). If Singapore English *one* is a phonologically relabeled *de*, (23) requires that it be classified as a particle, on par with *de*. But in all productive frames *one* behaves like a pronominal in Singapore English. Only in the emphatic frame XP-*one* and the putative relative clause XP-*one*, *one* loses its pronominal status and assumes the grammatical functions of particle and relative pronoun, respectively. In other words, Singapore English *one* acquires not only the phonological property of English *one*, but also its syntactic property.

In addition, the lexicalist approach fails to account for the frequency effects that we see in Tables 1 through 3. Granted that the *one* frames in Singapore English are relexified *de* frames, we would expect them to exhibit the same usage profile. As far as the usage of *one/de* is concerned, we expect Singapore English to converge with Chinese, as determined by communicative needs. This expectation is not borne out by our corpus data. Singapore English *one* converges with Chinese *de* in structure, but with English *one* in frequency of use. The difficulty to account for the frequency effects is a direct consequence of the notion of lexical entry in generative linguistics that underpins the relexification specified in (23).

Frequency plays an important role in the shaping of grammar (see Bybee 2001, 2003; Bybee and Hopper 2001). But it has not found a place in an explanatory theory of creole genesis. In what follows I outline a usage-based approach to relexification which provides a straightforward explanation of the structure and frequency of use of *one* in Singapore English.

Exemplar theory was first developed by psychologists to study perception. Johnson (1996) and Pierrehumbert (2001) extend it to the study of speech perception and production, and Bybee (2001) to the study of phonology. The theory is based on linguistic performance, so it departs from the standard assumptions of generative linguistics, which is concerned with linguistic competence. The basic tenet of exemplar theory is that each linguistic unit is represented by what Pierrehumbert (2001) calls a 'cloud of remembered tokens' of that unit. Each individual token of a linguistic unit is a separate exemplar of that unit. A frequently used unit is represented by a large number of exemplars, and an infrequently used unit by a small number of exemplars. The cloud of tokens can be arbitrarily large.

Two attributes of the theory are crucial. First, each exemplar is associated with a strength index, whose value increases each time it is activated by new experiences. Frequently experienced exemplars are more likely to be activated than infrequently experienced ones. The frequency effect follows naturally from this conception of exemplar. Second, each exemplar exemplifies a constellation of

representations that encode a variety of information typical in a communicative act. Pierrehumbert (2001) says that an exemplar may fall into different categorization schemes, and each scheme creates a separate representation. A token of a given phrase exemplifies the physical speech signals, the phonemes and words that make up the phrase, and the construction type of the phrase, among others. This is illustrated in the exemplar *large one* below, specifying only the pronunciation and the construction type, i.e. frame:

(25) [lɑːdʒwʌn]
  |
 large one
  |
 A-*one*

Of course, it can be further categorized into other representations, such as anger (as in *large one!*) or request (as in *large one, please*). Since exemplars are remembered tokens that include detailed physical properties of the speech signal, they can be categorized on the basis of any physical property that conveys a communicative intent. For our purpose, (25) is sufficient.

Johnson (1996) and Pierrehumbert (2001) are concerned with the perception and production of speech sounds. The basic tenets of the theory, however, can be easily extended to linguistic units larger than speech sounds. The unit of interest to us is the *one* phrases in English and Singapore English, and the *de* phrases in Chinese. A token of *large one* not only provides an exemplar of the phonemes and words that make up the phrase, but also of the construction type, or frame. So the token count of *large one* raises the strength index of *large one* the phrase, but also of the strength index of A-*one* the frame. Tokens of different adjectival phrases raise the strength indices of the respective phrases, but the strength index of the same frame, i.e. A-*one*. It is not surprising that A-*one* is taken as the canonical use of *one*. Its strength index is the highest among all frames.

Assuming (25), we define the usage-based process of relexification as in (26) ([…], pronunciation):

(26) *substratum*   *superstratum*   *contact*
     $[\ldots]_i$ $[\ldots]_j$ $[\ldots]_j$
       | | |
   EXEMPLAR$_i$ + EXEMPLAR$_j$ → EXEMPLAR$_k$
       | | |
      F_i F_j F_k
   where $F_k = F_i \cup F_j$.

For ease of exposition we use F to refer to the set of frames in which a given feature f is used, and the subscripts i, j, k to refer to the substratum language, the superstratum language and the contact language, respectively. EXEMPLAR is the set of exemplars that exemplify all possible surface configurations, or frames, of a given feature. In addition to phonological relabeling, the contact language obtains its frames from the frames of the substratum and superstratum languages. The size of the union set F_k — its cardinality — is not the simple sum of the sizes of F_i and F_j, since some frames may exhibit surface configurations that are similar enough for them to be treated as a single frame, even though they may be subject to different structural analyses. The shared frames, along with shared meanings, serve as the basis for choosing EXEMPLAR$_j$ as the morphosyntactic exponent of EXEMPLAR$_i$ in the first place.

For any transferred feature to be exponenced, the exemplar-based relexification defined in (26) requires two sorts of information: the set of frames of the feature in the substratum language and the set of frames of the putative morphosyntactic exponent from the superstratum language. The set of frames being created crucially depends on these two sorts of information. The categorial status of the feature plays no role. This is to be expected in a contact ecology such as Singapore English's, where the creator-developer of the contact language has ready access to all contributing languages. Exposure to spontaneous language data ensures that the frame most frequently used will be the most prominent in the relexification process.

(26) produces four types of logically possible outcome of substrate influence, shown in (27).

(27) a. Type I: If $F_i = F_j$, then $F_k = F_i$ or $F_k = F_j$
      b. Type II: If $F_i \subset F_j$, then $F_k = F_j$
      c. Type III: If $F_j \subset F_i$, then $F_k = F_i$
      d. Type IV :   If $F_i \not\subset F_j$ and $F_j \not\subset F_i$, then $F_k = F_i \cup F_j$

The four implicational statements are not logical tautologies, but the consequences of (26) that must be supported by empirical evidence. Note that F_i and F_j must minimally share one common frame, allowing f_j to be the morphosyntactic exponent of f_i. If the two sets are identical (Type I), or the substratum set is included in the superstratum set (Type II), we have no evidence that substratum transfer has taken place. In either case, the exponent is used in the contact language in the same way as it is used in the superstratum language. In Type III, the superstratum set is included in the substratum set, whereby the exponent is used in more frames in the contact language than those in the superstratum language, and the additional frames are identical to those in the substratum language. In Type IV, the two sets of frames overlap, but neither is the proper subset of the other. Given the

union definition of F_k, the frames of the exponenced feature, substratum influence can be seen as a special case of broadening. This is because F_k includes the uses of F_i and F_j, modulo the effect of the grammar of the language that contributes F_j and of linguistic universals.

Type II deserves some comment. In this type, if the exponent's usage in the contact language mirrors that of the exponenced feature in the substratum language, we have a special case of narrowing. This state of affairs calls for an intersection definition of F_k, given in (28a), which yields the implicational statement (28b):

(28)   a. $F_k = F_i \cap F_j$
       b.   If $F_i \subset F_j$, then $F_k = F_i$

(28b) is a direct counterexample of (26), which encodes substratum-driven broadening. The empirical consequence of this type of substratum influence has yet to be fully explored. There is evidence, however, that substratum influence results in a broadening, rather than narrowing, of the meanings of f_j. The behavior of *play* and its Chinese counterpart *wan* illustrates this general tendency. In English, *play* can be used with games (*play basketball*), musical instruments (*play the guitar*) and recording media (*play the CD*). The word is typically translated as *wan* in Chinese. But *wan* can be used in the first two instances, but not the third (CL, classifier):

(29)   a   wan lanqiu,
           play basketball
       b.   wan jita
           play guitar
       c.   *wan zhe-zhang CD
           play this-CL   CD

Clearly, *wan*'s range is narrower than *play*'s. Yet, in Singapore English, *play* follows the English usage; its range has not narrowed to that of *wan*. Interestingly, in colloquial Chinese spoken in Singapore, (29c) is acceptable, suggesting *play*-influenced broadening.

Type III is quite common among contact languages. Most works on substratum influence cite examples of this type; see contributions in Muysken and Smith (1986) and Mufwene (1993), and Keesing (1988), Lefebvre (1998), Siegel (1999, 2000), among others. Singapore English *win* is a typical example of Type III relexification. The event of winning (a game) has three participants: two opponents and a game, which are expressed by noun phrases in a clause. In Chinese, English and Singapore English, we observe the following uses of *win* ($N_{1,2}$, opponents, N_3, game):

(30) a. N_1_:
              Chinese: Zhangsan yin-*le*
                                           Zhangsan win-ASP
              English: John won.
              Singapore English: John won.
         b. N_1_N_2
              Chinese: Zhangsan yin-*le*   Lisi   (= (24b))
                                           Zhangsan win-ASP Lisi
              English: *John won Bill.
              Singapore English: John won Bill.
         c. N_1_N_3
              Chinese: Zhangsan yin-*le*   zhe-pan qi
                                           Zhangsan win-ASP this-CL   chess
              English: John won the chess game.
              Singapore English: John won the chess game.

The frames of English *win* are included in the set of frames of Chinese *yin*. As predicted by (26), Singapore English *win* acquires its frames from Chinese *yin*, i.e. $\{N_1$_, N_1_N_2, N_1_$N_3\}$. Incidentally, it is an instance of broadening.

   Singapore English *one* is a case of Type IV relexification. The set of Chinese *de* frames and the set of English *one* frames overlap, but neither is a proper subset of the other. Given the sets specified in (31a) and (31b), (27d) yields (31c), which is the set of *one* frames for Singapore English (…, any non-null phrasal type):

(31) a.   Chinese:
              {A-*de*, N-*de*, P-*de*, XP-*de*, XP-*DE*, …*de* N}
         b.   English:
              {A-*one*, N-*one*, P-*one*, *one*-XP, *one*}
         c.   Singapore English:
              {A-*one*, N-*one*, P-*one*, *one*-XP, XP-*ONE*, XP-*one*, *one*}

I include the bare *one* for the sake of completeness. The first three frames have the same surface configuration, even though their syntactic analysis varies — English *one* is pronominal, whereas Chinese *de* is not. All the Singapore English frames in (31c) are either accepted by native speakers or attested in ICE-SIN. Note that the frame …*one* N, the exponent of …*de* N, is a strong violator; consequently it is excluded from the set (31c) by constraint (7). The remaining frames are further circumscribed by the morphosyntax of English and by linguistic universals, as we have seen in Section 2.

5.   Conclusion

The reconstructed contact language is not a direct replica of the substratum language, even in contact ecologies with a persistent and homogeneous linguistic substratum. Our account imposes a systematicity requirement on substratum transfer, and recognizes the contribution of the superstratum language beyond lexical items. The grammar of *one* in Singapore English reveals the interesting dynamics of substratum-superstratum competition, refereed by linguistic universals. While Singapore English converges with Chinese in structure, modulo the effect of (7), it converges with English in frequency. We attribute the substratum convergence to systemic substratum transfer, and the superstratum convergence to the circumscriptive function of the language that contributes the morphosyntactic materials to exponence the transferred system. Singapore English *one* is Chinese *de* that has filtered through the morphosyntax of English.

Relexification plays an important role in our account. The lexicalist model of relexification proposed by Muysken (1981) and Lefebvre (1998) is based on the conception of the lexical entry in generative linguistics, which is concerned with the linguistic competence of the ideal speaker-hearer. While it predicts the substratum convergence in structure, it fails to provide an adequate account of the frequency effects. The issue of use is overlooked in the lexicalist approach to relexification. By focusing on usage, the exemplar-based model overcomes this problem. Central to the model are the notions of frame and exemplar. A frame is the construction type of the constituent in which the putative substrate feature or lexical item (and its exponent) is embedded, and an exemplar is a physical token that exemplifies, among other modalities, a given frame. Exposure to the languages in contact is an essential element in our analysis. The set of frames associated with a feature is constructed on the basis of usage. The frequency effects follow directly from the exemplar-based model of relexification.

Notes

1.   Singapore English, or Singlish, refers to the vernacular variety spoken in informal context in Singapore. Although Singapore was a British colony (1819–1965), it was actually colonized by immigrant populations from southern China, southern India, and Malay-speaking areas in the region. The population mix, about 2/3 of Chinese descent and 1/3 of Malay and Indian descent, has been constant since the early days of Singapore (Turnbull 1977). This sociohistorical fact is significant for Singapore English, which exhibits extensive grammatical restructuring under the influence of the indigenous languages, especially Southern Min dialects of Hokkien and Teochew, and Cantonese. Though not a significant immigrant language, Mandarin has been an important part of the linguistic mosaic of Singapore throughout the 20th century. Since the dialects share the same construction which is the source of Singapore English *one* (Southern Min *e*, Cantonese *ge*, Mandarin *de*), Chinese data will be cited in pinyin, in accordance with Mandarin pronunciation.

2.   The International Corpus of English was initiated by the late Sidney Greenbaum, and started in the 1990s (Greenbaum and Nelson 1996). The corpus is a collection of corpora from countries where English plays significant communicative functions. Each country corpus is one million words in size, and follows the same design structure of 32 text categories. The informal register of Private Dialogue is composed of 100 files of spontaneous face-to-face (90 files) and telephone (10 files) conversations. Each file contains 2,000 words, for a total word count of 200,000. In this study we use the Private Dialogue subcorpora of the Singaporean and British components of the International Corpus of English, ICE-SIN and ICE-GB. The term 'Singapore English' therefore refers to the variety represented in ICE-SIN, and 'English' to the variety represented in ICE-GB.

3.   Of course, the sentences may be given more readings:

    i.   [showing in Cathay] ONE   (i.e. XP-*ONE*, cf. (1e))
         'SHOWING in Cathay'
    ii.   showing in [Cathay one]   (i.e. N-*one*, cf. (1b))
         'Showing in Cathay's'
    iii. those wear [black one]   (i.e. A-*one*, cf. (1a))
    iv. [those wear black] ONE   (i.e. XP-*ONE*, cf. (1e))
         'Those who WEAR BLACK'

We will only consider the reading that is most plausible within the context of the Private Dialogue of ICE-SIN, and ignore the other possible readings.

    The inherent structural ambiguity of the *one* forms, modulo the effect of intonation and context, forces us to be careful in the analysis of these frames. Methodologically it is necessary to consider the corpus-based usage pattern of a *one* form, in addition to the acceptability judgment of it by native speakers. Usage affects the outcome of the stabilization process.

4.   The emphatic frame XP-*DE* may optionally contain the copula verb *shi* 'be' with no change in emphatic force. The forms in (4e-iii) may read as follows:

    i.   shi hen chuzhao de
         shi very rough   *de*

In the display of Chinese data, I omit *shi* for the sake of clarity.

5. The *other* category includes bare uses of *one* and uses of *one* preceded by the article *the* and determiners like *this*. The breakdown of the counts is displayed below:

frame	ICE-SIN		ICE-GB	
	token	percent	token	percent
bare	11	3.9	38	22.0
determiner-*one*	269	96.1	135	78.0

It is interesting to note that the bare *one* frame has a much lower usage rate in Singapore English than in British English, perhaps due to the influence from Chinese *de*, which as a bound form must be preceded by a lexical word or phrase.

6. The novellas are *San li wan* by Zhao Shuli (approximately 135,000 characters) and *Bei ji guang* by Zhang Kangkang (approximately 75,000 characters). As a grammatical morpheme, *de* is among the most frequently used characters (words) in Chinese. The 6093 tokens of *de* constitute 2.9% of the total number of characters in the two novellas.

7. One may account for XP-ONE in terms of apparent grammaticalization (Bruyn 1996), according to which the grammaticalization of *one* into the emphatic marker in Singapore English is modeled on that of *de* in Chinese. Regardless of what drives the grammaticalization or reanalysis, the emphatic frame XP-ONE and the pronominal frame XP-*one* are instances of the *one* system. One referee points out that the emphatic ONE and the pronominal *one* in Singapore English may be unrelated homophones. We will not explore this possibility here. Suffice it to say that the judgment by native speakers on the source of *one* and the scholarly analyses of the *one* forms make it unequivocal that Singapore English *one* is modeled on Chinese *de*.

8. Alsagoff and Ho (1998) also include relativized NPs that contain both the English relative pronoun and *one*:

    i.   The man *who* do camera *one*
    ii. The man *who* sell ice-kacang *one*.

Here, we will not be concerned with the variation, which is common when the new relative clause structure is still in a state of flux.

9. Malay may also be a contributing factor (Alsagoff and Ho 1998). Since the Malay relative clause has the same relevant structure as its English counterpart, we will consider the English relative clause only.

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