Two Types of Functional Transfer in Language Contact

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Abstract
The aim of this article is to examine one kind of cross-linguistic influence, or transfer, in language contact situations. This is “functional transfer”, defined as applying the grammatical functions of a morpheme from one language to a morpheme in another language that does not normally have these functions. With regard to language contact, most reported instances of this kind of transfer concern the creation of a new grammatical morpheme in an expanded pidgin or creole, resulting from the use of a lexical morpheme of the lexifier (here the recipient language, RL) with semantic and syntactic properties of a grammatical morpheme of the substrate language(s) (here the source language(s), SL).

Another kind of functional transfer, however, results in an already existing grammatical morpheme in the RL being used with semantic properties, but not syntactic properties, of a grammatical morpheme in the SL that speakers perceive as equivalent. Thus, the two types of functional transfer differ in that the first entails morphological augmentation while the second involves functional alteration of an existing morpheme.

Other differences between the two types of transfer are that certain constraints appear to apply to the first type but not to the second. In addition, the first type of transfer, as opposed to the second, does not commonly occur in the process of second language acquisition. Explanations proposed for these distinctions concern different strategies used for morphological expansion in the development of a contact language. Different contact languages can be placed along a continuum based on the prevalence and type of functional transfer.

Keywords
transfer; constraints; creoles; pidgins; dialects; acquisition

Introduction
The purpose of this article is to fine-tune an important notion in contact-induced language change – transfer. It concentrates on one particular kind of transfer that leads to changes often referred to as semantic or structural borrowing – i.e. functional transfer (defined below). After discussing transfer in general, the article demonstrates that there are two kinds of functional transfer.
and describes the differences between them. It goes on to consider some possible explanations for these differences and to discuss some questions about one of the types. The conclusion proposes that the degree and type of functional transfer results in a continuum of different kinds of language contact varieties.

1. Transfer in general

The term “transfer” is used in historical linguistics, studies of bilingualism and second language acquisition (SLA) with a variety of interpretations (see Odlin 1989, 2003; Winford 2003; Jarvis and Pavlenko 2008). It sometimes refers to a process, or sometimes to the outcome of such a process, or sometimes ambiguously to both. For example, Heine and Kuteva (2005: 2) discuss the “transfer of linguistic material from one language to another”, but do not define “transfer”. Van Coetsem (2000: 51) defines transfer as “transmission of material or elements from one language to another”. Jarvis and Pavlenko (2008: 1) equate transfer and “cross-linguistic influence” and define it as “the influence of a person’s knowledge of one language on that person’s knowledge or use of another language”. They distinguish the transfer of linguistic properties (linguistic transfer) from the transfer of conceptual categories (conceptual transfer). In contrast, Yip and Matthews (2007: 37) consider transfer as a particular form of cross-linguistic influence and follow Paradis and Genesee (1996: 3) in defining it as “incorporation of a grammatical property into one language from the other”.

With regard to contact-induced language change, van Coetsem (2000) distinguishes between two types or patterns of transfer: “imposition” versus “borrowing”. In imposition, materials are transferred from a source language (SL) into a recipient language (RL) via the agency of speakers who are fluent in the SL (their dominant language) and less proficient in the RL. This is called “source language (SL) agentivity”. In borrowing, the transfer is again from the SL to the RL, but it is via the agentivity of speakers of the RL who are more fluent in that language. This is called “recipient language (RL) agentivity”. (See also Winford 2003, 2005.) It is imposition, or transfer via SL agentivity, that I am most interested in here. The results of this kind of transfer are also referred to in historical linguistics by various other terms, such as substratum influence and interference. Johanson (e.g. 2002) also uses the term “imposition”, which he distinguishes from “adoption” (rather than borrowing). This takes place when one code dominates another (e.g. adoption from French into Breton). Here dominance is social (e.g. in terms of power or prestige) rather
than psycholinguistic (in terms of proficiency). Johanson conceptualises the process as one of “code-copying” rather than transfer.

Here I am using transfer to refer to a particular psycholinguistic process in which the linguistic features of one language are employed by individuals in learning or using another language (Færch and Kasper 1987: 112). As such, transfer can be positive, when the features of the L1 and L2 are similar, or negative, when the features are different. The focus in the study of contact induced change is usually on negative transfer.¹ This process is evident when an individual’s production of an L2 differs from existing community norms, and the differences can be attributed to the individual’s L1. It is only in some special cases that transfer leads to change in the speech of a large number of individuals and that this change is eventually adopted by the speech community – i.e. that transfer leads to language change.

In this article, I examine evidence that this kind of transfer occurred in the earlier formation of language contact varieties: specifically new languages (expanded pidgins and creoles) and new dialects (indigenised varieties) that arose from colonisation. In each case, RL is the colonial language (the lexifier language in the case of pidgins and creoles) and the SL is the substrate language or languages of speakers who adopted a form of the RL as an important auxiliary language (and in some cases, who shifted to it as their primary language). The assumption here is if there is a grammatical feature in the contact variety that has properties of a corresponding feature in the SL and was not previously a feature of the RL, it is the result of transfer by individuals in an earlier stage of development. Such transferred features entered the pool of variants used for communication in the contact environment, and were used frequently enough to be retained when the contact variety stabilised (Siegel 1997, 2008).

2. Functional transfer

Here I focus on one particular kind of transfer in language contact situations. This is “functional transfer”, defined as applying the grammatical functions of a morpheme from one language (the SL) to a morpheme in another language (the RL) that does not normally have these functions. There appear to be two different types of functional transfer, as described below.

¹ However, as pointed out by the anonymous reviewer, positive transfer may also have a role in language contact in constraining change in features that are similar in the L1 and L2, and promoting the retention of common features in a resulting contact variety.
2.1. Functional transfer type 1

The first type of functional transfer leads to the creation of a new grammatical morpheme in a contact language, resulting from the use of a lexical morpheme of the recipient language (RL) with the semantic and syntactic properties of a grammatical morpheme of the source language(s) (SL).

I will present a clear example from Colloquial Singapore English, concerning the functions of *got* in this indigenised variety. All examples come from Lee, Ping and Nomoto (2009). In CSE, *got* on its own is a verb indicating possession (as in English):

(1) *I got* two brothers, one sister.
   ‘I have two brothers and a sister.’

But unlike English, it can function as an existential marker:

(2) a. *Got* two pictures on the wall.
    ‘There are two pictures on the wall.’

   b. *Here got* many nice houses.
    ‘There are many nice houses here.’

Preceding verbs, it can also be a marker of habitual or completive aspect:

Habitual aspect:

(3) a. *You got* play tennis?
    ‘Do you play tennis regularly?’

   b. *You got* play tennis last time?
    ‘Did you play tennis regularly?’

Completive aspect:

(4) a. *I got* go Japan.
    ‘I have been to Japan.’

   b. *You got* wash your hands?
    ‘Did you wash your hands just now?’

It can also be an emphatic marker:

(5) *You never sweep the floor ah?*
    ‘You didn’t sweep the floor, did you?’

   *I got* sweep!
    ‘I did sweep the floor!’

(6) a. *I got* at home.
    ‘I am at home.’
b. I got taller than him.
   ‘I am taller than him.’

And it is used with an interrogative pronoun to express challenge or disagreement:

(7) This dress very red.
   ‘This dress is very red.’
   Where got?
   ‘Is it? I don’t think so.’

Lee et al. (2009) demonstrate that all of these functions are characteristic of the Hokkien particle *u:*²

Possessive:

(8) Hi jiaq ngeow u ani zway ngeow knia.
    that clf cat u int many cat dim
   That cat got so many kittens.
   ‘That cat has got many kittens.’

Existential:

(9) Jit dao u jin zway swee e cu.
    this place u int many nice mod house
   Here got many nice houses.
   ‘There are many nice houses here.’

Habitual aspect:

(10) Li u pha bang giu bo?
    you u hit tennis neg
   You got play tennis?
   ‘Do you play tennis?’

(11) Li yee zeing u pha bang giu bo?
    you before u hit tennis neg
   You got play tennis last time?
   ‘Did you play tennis?’

Completive aspect:

(12) Li u sway qiu bo?
    you u wash hand neg
   You got wash your hands?
   ‘Have you washed your hands?’

² Note that Lee et al. (2009) do not indicate tones, and that there are some inconsistencies in their transliteration.
Emphasis:

(13) Le boh tak ceh a?
   you NEG study PART
   ‘You never study, ah?’

   ‘You didn’t study, did you?’

   Gwa u tak!
   I u study
   I got study!
   ‘I did study!’

Challenge/disagreement:

(14) Jin nia kun jin ang.
   this clf skirt INT red
   ‘This skirt is very red.’

   Dolo u?
   where u
   Where got?
   ‘Is it so?’

So this seems to be a clear case of the result of functional transfer. It also appears to be a clear example of contact induced language change, but let us make sure. Poplack and Levey (2010: 410) outlined a number of conditions necessary to establish contact-induced change due to interference (i.e. negative transfer), based on Thomason (2001: 93-94):

1. Situate the proposed change with respect to its host linguistic system.
2. Identify a presumed source of the change.
3. Locate structural features shared by the source and recipient languages.
4. Prove that the proposed interference features were not present in the pre-contact variety.
5. Prove that the proposed interference features were present in the source variety prior to contact.
6. Rule out (or situate) internal motivations.

Thomason (2001: 94) says that “in many, possibly even most contact situations around the world we cannot at present satisfy requirements 4 and 5”. But it seems clear that the uses of got in CSE, except for indicating possession, were not present in English but were present in Hokkien.

When dealing with language contact varieties, we also need to add to the list what Smith (1999: 252) calls “Bickerton’s Edict”: the need to show that “the right speakers were in the right place at the right time” (Bickerton 1984: 183) for such transfer to take place. Although Mandarin is now the dominant
Chinese language in Singapore, it was hardly spoken in the 1950s when education in English became more widespread (Lim and Foley 2004: 4) and Singapore English was rapidly developing. In 1957, over three quarters of the Chinese population and approximately 53 percent of the total population spoke Hokkien and other southern Min dialects as their first language (Kuo 1980: 41). Thus, the conditions of Bickerton’s Edict are met, and we can consider this an example of contact-induced language change resulting from transfer.

Here are two other examples of the results of functional transfer – one in an expanded pidgin and one in a creole. In Bislama, the English word *stop* became the preverbal marker *stap* indicating either habitual or progressive aspect:

(15) Hem i *stap* toktok

3sg srp.3sg hab/prog talk

‘She talks/is talking.’

This appears to be modelled on a marker with the same functional range typical of the dominant North/Central Vanuatu substrate languages, such as Nguna (Schütz 1969: 29):

(16) e *too* mari a

srp.3sg hab/prog do it

‘He does/is doing it.’

In Hawai’i Creole, the English verb *stay* is used as a copula (*ste/stei*) for locations and non-intrinsic attributes, and as a marker of progressive and perfect aspect, as in these examples (in both the phonemic Odo orthography and an etymological orthography) from Sakoda and Siegel 2003: 13, 61):

(17) Da buk *ste* awn tap da teibol. (Da book *stay* on top da table.)

‘The book is on the table.’

(18) Da wawta *ste* kol. (Da water *stay* cold.)

‘The water is cold.’

(19) Jawn *ste* raiting wan leta. (John *stay* writing one letter.)

‘John is writing a letter.’

(20) Aevribadi *ste* finish. (Everybody *stay* finish.)

‘Everybody has finished.’

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3 The exact figures were 53.2 percent of the population speaking Southern Min varieties (30.0% Hokkien, 17.0% Teochiu, 5.2% Hainanese, 1.0% Foochow), 17 percent speaking Cantonese and 0.1% Mandarin, as well as 11.5 percent speaking Malay (Kuo, 1980: 41).
Although the estar + gerund construction is considered a feature of Brazilian rather than European Portuguese, it is found on Madeira and the Azores (Carrilho 2010). The vast majority of Portuguese immigrants in Hawai‘i came from these islands.

These functions match those of estar in Portuguese, one of the major substrate languages and the language of the first immigrant community that shifted to the emerging creole:

(21) O livro está sobre a mesa.
‘The book is on the table.’

(22) A água está fria.
‘The water is cold.’

(23) João está escrevendo uma carta.4
‘John is writing a letter.’

(24) Todo mundo está acabado.
‘Everybody has finished.’

Note that ste in Hawai‘i Creole, like estar in Portuguese but unlike to be in English, is not used as a copula with adjectives indicating permanent or intrinsic characteristics, and when it acts as a progressive auxiliary, it cannot be used to refer to future events, as in He is leaving tomorrow (Siegel 2000: 229).

2.2. Functional transfer type 2

The other kind of functional transfer results in an already existing grammatical morpheme in the RL, not a lexical item, being used with the semantic/functional properties of a grammatical morpheme in the SL.

For example, in Colloquial Singapore English the conjunction until can be used as in other varieties of English to indicate that the propositions in the two clauses are sequential or consecutive – for example:

(25) I run until I (am) tired. (Bao and Wee 1998: 33)

Here until indicates the action of the main clause (running) comes to an end when the state of the subordinate clause (being tired) comes into effect. But in Singapore English, until can also be used to indicate that the action of the main clause continues along with the state or action of the subordinate clause, as in the following (Bao and Wee 1998: 34):

(26) a. I ate until I (was) sick; but I didn’t want to stop because I already paid for the food.
   b. I waited until I (was) angry; luckily my turn came ten minutes later.

4 Although the estar + gerund construction is considered a feature of Brazilian rather than European Portuguese, it is found on Madeira and the Azores (Carrilho 2010). The vast majority of Portuguese immigrants in Hawai‘i came from these islands.
Bao and Wee (1998) show that this use of *until* in Singapore English matches the functions of the conjunction *dao* in the Chinese substrate languages – for example (p. 37):

(27) *tamen tan dao ban ye, hai zai tan*

    they talk DAO half night still PROG talk

    'They talked until midnight, and were still talking.'

Another example of this kind of functional transfer in Singapore English concerns the pronoun *one*, as described by Gupta (1982), Wong (2005) and Bao (2009). *One* can substitute for a noun modified by a determiner or an adjective, as in English:

(28) a. *I don't like this one.* (Wong, 2005: 250)
    b. *Very ugly one.* (p. 246)
    c. *This one free one.* (p. 246)

But unlike English, it can substitute for an uncountable noun:

(29) *I get nothing but rubbish one* [i.e. junk mail], *you know.* (p. 240)

Furthermore, unlike English, *one* can be modified by a preceding prepositional phrase:

(30) *from Thailand one*

    'one from Thailand' (Bao 2009: 340)

or by a clause:

(31) a. *This one must eat fast one.* (Wong 2005: 241)

    ['This [item of food] is one that must be eaten quickly.]
    b. *She got no substance one.* (p. 246)

    ['She is one who has no substance']

Both Wong (2005) and Bao (2009) demonstrate that these uses of *one* correspond with those of a particle in the Chinese substrate languages, such as *de* in Singapore Mandarin.

Alsagoff and Ho (1998: 128) give many other examples, such as:

(32) a. *That man wear red shirt one Keng's cousin from Ipoh.*

    ['That man who's wearing a red shirt is Keng's cousin from Ipoh. ']
    b. *The cake John always buy one very nice.*

    ['The cake that John always buys is very nice. ']

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5 Bao and Wee (1998) also do not indicate tones.
Following Li and Thompson (1981), Alsagoff and Ho (1998) interpret such phrases with one modified by a clause as relative clauses, with one functioning as a relative pronoun (rp), modelled on the use of particles in Chinese languages – de in Mandarin, e in Hokkien and ge in Cantonese. Take, for example, the following sentence in Singapore English.

(33) *That boy pinched my mother one very naughty.* (Alsagoff and Ho 1998: 129)

The equivalent in Hokkien is:

(34) Ngiap wa-e laubu e hi-le tabo gin jin pai
    pinch my mother rp that boy child very naughty

   'That boy who pinched my mother is very naughty.'

and in Cantonese (p.129):

(35) Mit ngo mama ge go-go namzai ho kuai
    pinch my mother rp that boy very naughty

   'That boy who pinched my mother is very naughty.'

Thus we see evidence of the functional transfer of grammatical properties from the Hokkien particle e and Cantonese ge to the English pronoun one.

This kind of functional transfer can also be seen in the Spanish of Quechua-Spanish bilinguals in the Andes. Quechua (SL) has an opposition between the non-evidential past marker -sqa (indicating that the speaker has no visual evidence for the action or state described by the verb) and the evidential past marker -rqa (indicating that the speaker does have evidence from their own experience or memory). The following examples come from the Cochabamba region of Bolivia. In (36) the speaker did not witness the burglars she is talking about:

(36) encapuchado yayku-sqa:-nku
    hood.cover.part enter-nonevid.past-3pl.

   'with their faces covered with hoods they entered'

In (37) the same speaker reports on the approximate time of the burglary, which she knows from her own experience:

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6 Alsagoff and Ho (1998) also do not indicate tones, and their system of transliteration does not always agree with that of Lee et al. (2009).

7 Quechua and Andes Spanish examples come from Corpus ANDES, Stefan Pfänder, Daniel Alcón, Mario Soto, Philipp Dankel (coord). www.espanoldelosandes.com, 2011. Thanks go to Mario Soto, Philipp Dankel and Stefan Pfänder for providing them.
(37) *siete y media ocho-ña ka-rqa* =
seven and half eight-LIM be-EVID.PAST
‘it was half past seven, at most eight’

This opposition in evidential marking has been transferred to the pluperfect and perfect constructions in Spanish (RL). The pluperfect form of Spanish *había V-ado* is used not to indicate past before past as in European Spanish, but to mark non-evidential past, corresponding to the Quechua morpheme *-sqa*. The perfect *ha V-ado* is used to mark evidential past, corresponding to *-rqa*. In (38), the speaker is narrating a story about a murder that occurred long ago and talks about the interrogation of a friend of the murderer. She uses the pluperfect to mark the event of the friend talking, which she did not witness herself, but the perfect in quoting what the friend said, since he was talking about his own experience:

(38) *el amigo había dicho yo no be tocado*
the friend had said [=NONEVID.PAST] 1SG NEG has touched [=EVID.PAST]
‘The friend reportedly said “I didn’t touch (her).”’

The same phenomenon, called “functional convergence” by Sánchez (2004), has been described for other varieties of Andean Spanish (Klee and Ocampo 1995; Escobar 1997; Pfänder 2010).

This second type of functional transfer is harder to find in expanded pidgins and creoles because they less frequently incorporate grammatical morphemes from the lexifier language. One example, however, comes from Hawai’i Creole, which has adopted the English suffix *-ing* to indicate progressive, either with or without the auxiliary *ste* (*stay*):

(39) a. …*my grandpa stay listening to his Japanese radio station.* (Tonouchi 1998: 245)
‘…my grandpa is listening to his Japanese radio station.’

b. *I stay drowning my sorrows in Faye and Shakespeare.* (Kearns 2000: 26)
‘I was drowning my sorrows in Faye and Shakespeare.’

‘He’s helping me.’

d. *She talking to herself.* (Lum 1998: 230)
‘She’s talking to herself.’

This may have been reinforced by progressive suffixes in the substrate languages of the two immigrant communities who first shifted to the emerging creole: Portuguese(*-ando/-endo/-indo*), as in example 23 above, and Cantonese (*-gán*), for example (Matthews and Yip 1994: 198):
(40) Wôhng siújé gong-gân dihná.
Wong miss talk-prog telephone
'Miss Wong is [talking] on the telephone.

Like the corresponding suffixes in these substrate languages, but unlike -ing in English, the progressive suffix in Hawai‘i Creole cannot be used to refer to future events, as mentioned above – e.g. *He helping me tomorrow. Thus, while the examples showed a contact-induced extension of the functional properties of a grammatical morpheme, these examples show a contact-induced contraction of functional properties.

2.3. Summary

In summary, the two types of functional transfer differ in that the first entails morphological augmentation – the creation of a new grammatical morpheme – while the second involves functional alteration (either extension of contraction) of an existing grammatical morpheme. Evidence of the first type is found more frequently in expanded pidgins and creoles. Evidence of the second type is found more frequently in indigenised varieties.

3. Other differences between the two types of functional transfer

The two types of functional transfer differ in other ways: whether or not proposed constraints apply and whether or not they also occur in language acquisition.

3.1. Constraints

Researchers in SLA and language contact have postulated a variety of factors as constraints or influences on the likelihood of particular linguistic features being transferred by individuals (see the discussion in Siegel 2008: 155-64). With regard to the type of functional transfer involving morphological augmentation, certain constraints appear to apply, and to some extent these concern the structural differences between the languages in contact. The most important constraints have to do with perceptual salience and congruence. For a feature to be transferred, there must be “somewhere to transfer to” (Andersen 1983) – a lexical morpheme (or string of morphemes) in the RL (recipient language – here the colonial or lexifier language) that can be assigned the functions of a grammatical morpheme in the SL (source language – one of the substrate languages). This RL morpheme or string must be perceptually
salient – a separate word, or words, or at least a stressed syllable – and it must be perceived to have a function or meaning related to that of the corresponding SL morpheme, and occur in the same surface syntactic position. The absence of such a morpheme in the RL, or the lack of structural congruence, will constrain transfer.

These constraints have accounted for the presence of certain prevalent substrate features but the absence of others in Melanesian Pidgin (Siegel 1999, 2008; Terrill 2011), Tayo (Siegel, Sandeman and Corne 2000; Sandeman 2011) and Australian Kriol (Munro 2004). Here I will illustrate them with Singapore English. The main varieties of Chinese spoken in Singapore – Hokkien and related Min dialects, Cantonese and now Mandarin – all have postverbal morphemes to mark the same four aspectual categories: perfect (or completive), inchoative, continuous and experiential (Chappell 1992). In Singapore English the functions of the perfect marker have been transferred to the adverb already, as shown in the following examples:

(41) a. I only went there once or twice already. (Platt and Weber 1980: 66)
    b. I work about four months already. (Bao 1995: 182)

Platt and Weber (1980: 66) show that this use of already is analogous to that of the perfect marker liaú in Hokkien:

(42) Gún tháùke tńg chhù liaú.
    our boss return home pft
    ‘Our boss has returned home.’ (Platt and Weber 1980: 66)

In addition, as with perfect markers in the Chinese substrate languages (Chappell 1992), already also functions to indicate inchoative with stative predicates – for example:

(43) a. The wall white already.
    ‘The wall turned/has turned white.’ (Bao 2005: 239)

    b. I want to eat durian already. (Bao 1995: 184)
    [‘I now want to eat durian (but didn’t want to before).’]

Furthermore, unlike already in English, but like perfect markers in the Chinese substrate languages, already occurs in negative sentences in Singapore English – for example (Bao and Hong 2006: 108):

(44) If reject then she wouldn’t get her PP already lor.
    ‘If (her proposal is) rejected, then she wouldn’t get her PP’

In contrast, there is no evidence of the functions of the other three aspect markers being transferred to English words in Singapore English. English does
have words with meanings related to those indicated by the aspect markers – for example, “start” or “begin” for inchoative and “keep on” for continuative. But these occur before the verb, as in “begin working” and “keep on running”. Since these forms are not syntactically congruent with the postverbal aspect markers, transfer did not occur.

On the other hand, Bao (2005) argues that this congruence constraint has been violated in Singapore English because the properties of the Chinese postverbal marker of experiential aspect (guo in Mandarin) have been transferred to the English preverbal word ever – as in the following:

(45) a. I _ever_ tried this type of fruit before.  
    ‘I have tried this type of fruit before.’ (Bao 2005: 244)

b. I _ever_ met some customer like that. (Ho and Wong 2001: 81)  
    ['I’ve met some customers like that.]

However, as already mentioned, when Singapore English was developing, over three quarters of the Chinese population (and approximately 53 percent of the total population) spoke Hokkien and other southern Min dialects as their first language (Kuo 1980: 41). According to Chappell (1989-1992), these varieties most often express experiential aspect not with a suffix, as in Mandarin and other varieties, but with a preverbal adverb, _bat1_ (or variants) as in this example (Ho and Wong 2001: 85):

(46) _Goa_ _bat_ _khi_ _jit-pun_.
    I _ever_ go Japan
    ‘I’ve been to Japan (before).’

Ho and Wong (2001: 84) note that this adverb “provides an exact semantic and grammatical fit with _ever_ in SgE [Singapore English]”. Thus, the congruence constraint has not been violated and so far remains valid.

In contrast to functional transfer involving augmentation, the second type of functional transfer, involving alteration, does not seem to be subject to all of these constraints. While there does need to be “somewhere to transfer to” in the RL – a morpheme perceived to have a function or meaning related to that of the corresponding SL morpheme – this morpheme does not have to be relatively perceptually salient – as we have seen with _-ing_ in Hawai’i Creole. Furthermore, the SL morpheme and the RL morpheme do not necessarily have to be syntactically congruent, as we have seen with the past evidential marker in Andean Spanish and with the non-English positions of _one_ in Singapore English.

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8 Ho and Wong (2001) also do not indicate tones.
3.2. Acquisition

Transfer involving functional alteration (the second type) is frequently reported in research on second language acquisition (SLA) and bilingual first language acquisition (BFLA).

3.2.1. Functional transfer in SLA

In SLA, several studies show the influence of properties of L1 grammatical markers on the use of L2 grammatical markers that learners may perceive as equivalent. This is what Jarvis and Pavlenko (2008: 95) refer to as functional transfer. In one case, Collins (2002) found that French learners of English inappropriately use the English present perfect construction in simple past contexts, presumably because of its superficial similarity with the French passé composé – e.g. French elle a dansé ‘she danced’ and English she has danced – for example (p.49):

(47) When I was more young, I have gone with my friend and his parents camping…

[emphasis in original]

In another case, Wenzell (1989) describes how in oral narratives, two Russian learners of English transferred the properties of the Russian system of verbal marking, based on aspect to the English system of marking, based on tense. In Russian, according to Wenzell, events or situations are considered perfective if they are viewed as single, bounded totalities and imperfective if they are views without reference to their boundaries. Thus, punctual, completed or stative propositions are normally perfective and habitual, progressive and present perfect are imperfective. Perfective aspect is usually marked by a prefix on the verb and is more limited than imperfective aspect. The learners in Wenzell’s study used English past tense marking (-ed or morpheme internal change) for what would be marked as perfective in Russian and the unmarked verb for imperfective.

Odlin (2008: 317-18) reports on a study of Tamil-speaking intermediate learners of English using will for habitual aspect. This is common in English for present contexts – such as George will always be late – but some of the Tamil learners used it in past contexts – for example (p. 318):

(48) I will show all the f-film/ all the pla-education film

‘I used to show [a lot of?] films, all educational films.’

According to Odlin (p. 318), this is the result of the influence of Tamil, in which the future form of the verb can be used to mark habitual aspect in both the present and the past, where the future meaning is neutralised.
Finally, Sánchez (2004) presents many examples of functional transfer from narratives of Quechua-speaking children in Peru (aged 10-16) who learned Spanish as a second language in school. Some of the children frequently used the non-evidential (or reportative) past marker -sqa in their Quechua narratives – for example (pp. 155-56):

(49) a. pichikucha-ta tarikur-sqa qilluchata
   birdy-acc find-nonevid.past yellow-acc
   '(She) found a yellow bird.'

   b. Hinaspa apa-sqa wasi-n-man hinaspay
   then bring-nonevid.past house-3sg-abl then
   sumaqchata-qa abriga-sqa.
   well-acc warm-past.report
   'Then (she) brought (it) to her house and then she warmed (it) nicely.'

In their Spanish narratives, these same children used the Spanish pluperfect form for the same functions – for example (pp. 157-58)

(50) a. Le había encontrado un pajarito # amarillo.
    cl. had found a birdy yellow
    '(She) found a yellow bird for him/her'

   b. Y le había hecho comer trigo # agua # pan.
    and cl. had made eat wheat water bread
    'And (she) made him eat wheat, water and bread.'

In contrast to these and other examples, there is virtually no evidence in SLA studies of the first type of functional transfer, i.e. involving morphological augmentation (see Siegel, 2008).

3.2.2. Functional transfer in BFLA

Transfer involving functional alteration is also reported in studies of bilingual first language acquisition (BFLA). As in SLA, it is thought that transfer in BFLA occurs more frequently when the child is more proficient in one of the languages and that it occurs in the direction from the dominant language (in terms of proficiency) to the weaker language (Yip and Matthews 2007: 46; Marian and Kaushanskaya 2007: 381). Furthermore, some researchers, such as Schlyter (1993), see BFLA as being similar to SLA in that the weaker language of a child learner develops like an L2 with the dominant language influencing it, like an L1. In a study of older bilingual children (aged seven to nine) who had not completely acquired one of the languages, Bolonyai (2007: 29) found that the children “behaved more like L2 learners in that their weaker language appears to be susceptible to cross-linguistic influence from their stronger language and showed restructuring as a result of bilingual contact”.
An example of the second type of functional transfer concerns German-French BFLA (Müller 2006). In Standard German, subordinate clauses are verb final and infinitival clauses are introduced with um ‘around, at, for’ preceding the object and zu ‘to’ preceding the verb:

    [lit. ‘Hans has to the party gone for a waltz to dance.’] (Müller 2006: 150)

Müller reports one child’s use of the German preposition für ‘for’ (or the innovative variants fū, fium or fū) to introduce complement clauses, apparently modelled on the use of pour ‘for’ in French, as in Elle vient pour chercher ses affaires ‘She is coming to collect her things’ – for example:

(52) das für k/ j]emmen deine haare (= klemmen)
    [‘this for (to) press your hair’] (Müller 2006: 151)

Functional transfer is also found in a study of children’s bilingual acquisition of Cantonese and English. Yip and Matthews (2007) report that prenominal relative clauses, modelled on Cantonese, emerged in the English of one of the children – for example (p. 164-65):

(53) I want Pet-Pet buy that one videotape.
    [‘I want the videotape that Pet-Pet bought.’]

Here we see the use of one as a relative pronoun influenced by Cantonese, as in Singapore English (Yip and Matthews 2007: 182).

Again, in contrast to the second type of functional transfer involving functional alternation, evidence of the first type (i.e. involving morphological augmentation) is scarce. This difference is significant, and requires some explanation.

4. Explanation

The role of SLA in language change and specifically in the formation of pidgins and creoles has been described by many researchers – e.g. Wekker 1996 Thomason 2001, Winford 2003, Siegel 2003, 2006, and Kusters 2008. Consideration of the role of BFLA is more recent. Yip and Matthews (2007: 52) state that “child bilingualism is a potential mechanism for contact-induced change and substrate influence in particular”. However, Meisel (2011) questions the role of BFLA in language change regarding parameter settings and this is debated in the commentary that follows his article. Nevertheless, as mentioned above, it is generally agreed that successive rather than simultaneous bilingual acquisition (after approximately age 4) is similar to second language
acquisition, and when L2 learners provide the primary input for first language acquisition, this can lead to contact induced change (Meisel 2011: 139). In other words, changes in the target language (the L2 or the weaker language in BFLA) brought about by individual learners can become the input for later generations and be adopted by the community resulting in the examples of morphological alteration we have seen in contact languages, especially in indigenised varieties.

The problem then is how to explain the fact that evidence of the other type of functional transfer – morphological augmentation – is found in contact varieties but not in individual learner varieties in SLA or BFLA.

The explanation I propose is that the development of contact varieties consists of two stages, and that the second stage can involve two different strategies – each leading to a different type of functional transfer. The first stage involves typical L2 learning as speakers of the source languages (SL) target the recipient language (RL) as the L2. (In places where contact varieties have emerged, the L2 is usually the language of the colonial power.) In the first stages of SLA, most learners basically acquire lexical items from the L2 and not grammatical morphology. This is called the “content-word state” by van de Craats, Corver and van Hout (2000). Learners’ interlanguage at this stage is referred to the “Basic Variety” (BV) by Klein and Perdue (1997: 332), who summarise its structural features as follows: “Strikingly absent from the BV are ... free or bound morphemes with purely grammatical function”. In some situations, a restricted pidgin conventionalising common features of individuals’ interlanguages may emerge. (See Figure 1a).

If the needs are only for basic communication, speakers may continue to use their own interlanguage versions of the Basic Variety, or the restricted pidgin. However, if the needs for communication expand – for example with greater integration into the L2 community or the adoption of the L2 as a lingua franca among speakers of different SLs – individuals’ interlanguages or the restricted pidgin also need to expand. This results in Stage 2: Morphological expansion. The expansion in this stage can occur in one of two ways: continuing L2 acquisition with the RL as the target or expansion without a target.

**STAGE 1**

![Diagram](attachment:image.png)

**Figure 1a.** Stage 1 in L2 learning or pidgin/creole formation
In continuing L2 acquisition (see Figure 1b), SL speakers learn grammatical morphemes from the RL and incorporate them into their interlanguage (or L2 varieties). While this learning is occurring, some functional transfer of the second type may occur – i.e. using an RL grammatical morpheme with the functional properties of an apparently corresponding SL morpheme, as reported in the SLA literature described above. In most SLA situations, where SL-speaking learners are a small minority, such transfer will be eliminated with more exposure to the target language. But in situations where SL speaking learners make up the majority – for example where indigenised varieties developed – the transferred features may remain and become conventionalised in what becomes viewed as a local variety.

In contrast, expansion can also occur not by targeting grammatical morphemes the RL, but rather by giving grammatical functions to existing lexical items in individuals’ interlanguage or the pidgin. These functions are based on those of grammatical morphemes in the SL (see Figure 1c).

Thus, this is the first type of functional transfer – i.e. resulting in morphological augmentation. This kind of transfer is recognised as a strategy in second language use to compensate for a lack of grammatical features felt to be

![Figure 1b](image-url)

**Figure 1b.** Stage 2, targeted morphological expansion (by continued L2 acquisition)

![Figure 1c](image-url)

**Figure 1c.** Stage 2, untargeted morphological expansion
necessary for communication (Kellerman 1995; Siegel 2003, 2008). But it
does not normally occur in second language acquisition.

In pidgin and creole studies, it has been proposed that what is going on here
is a “target shift” (Baker 1990), and that at this point the learners are targeting
not the lexifier language but the Basic Variety (Becker and Veenstra 2003).
What I propose (Siegel 2008) is that in cases of morphological augmentation
by functional transfer, there is no target as such. But there is a shift at this
point involving the RL – it is no longer the colonial language, but rather the
form of the colonial language (interlanguage varieties or pidgin) that has been
adopted for wider communication. It is this emerging contact variety that
expands predominantly via the second type of functional transfer to become
an expanded pidgin or creole. Again this occurs where SL speakers make up
the majority. The original RL is not targeted as a source of grammatical expan-
sion either because SL speakers do not have access to it or because they are not
interested in accessing it (for example, because of its associations with
oppression).

5. Questions concerning morphological augmentation

The characteristics of the first type of functional transfer (morphological aug-
mentation) lead to two interesting questions – one concerning the role of
grammaticalisation and the other the reasons why it is subject to constraints.

5.1. Grammaticalisation

In non-targeted morphological expansion, as we have seen, a lexical item orig-
inally from the RL becomes a grammatical morpheme. This raises the ques-
tion of whether grammaticalisation, as it is normally understood in historical
language change, is relevant to the features of contact languages that I argue
arise from the first type of functional transfer.

It is clear that grammaticalisation as it is conventionally defined, has
occurred in some expanded pidgins and creoles – for example, the gradual
development of English by and by into the future marker bai in Tok Pisin
(Siegel 2008: 63–4). However, many scholars have also used the term gram-
maticalisation to refer to examples of functional transfer involving lexical
items from the lexifier becoming grammatical morphemes modelled on
grammatical morphemes from a SL, and thus consider grammaticalisation to
be a fundamental process in creole formation. However, there are several
problems with this view, as pointed out by Plag (2002) and discussed further
in Siegel (2008: 139-41). First, grammaticalisation is normally considered to be a gradual process taking place over several generations. But the language change that results from the first type of functional transfer occurs much more rapidly – for example, in one generation in the case of *ste* (*stay*) in Hawai‘i Creole (Roberts 1998). Second, there is no evidence of the occurrence of the stages of development that generally characterise grammaticalisation – e.g. desemanticisation and phonological reduction. Third, according to Hopper and Traugott (2003: 126), grammaticalisation does not normally result in a structure with a new function where none existed before, but rather competes with existing constructions very similar in function. However, in the case of expanded pidgins and creoles, functional transfer results in grammatical morphology with functions that previously did not exist in the preceding restricted pidgin or individual interlanguages.

In addition, changes due to grammaticalisation are normally considered to be strictly language-internal, and distinct from contact-induced language change. In contrast, the results of functional transfer are clearly due to the influence of another language. Heine and Kuteva (2005) have discussed what they call “contact-induced grammaticalization”, and they offer several examples from expanded pidgins and creoles, of the type described above, that they say are the result of this process. But there is no evidence that the examples they give are the result of the process of grammaticalisation as it is normally understood. Rather they are examples of “apparent grammaticalisation” (Bruyn 1996, 2009) – what I call functional transfer. The end results of conventional grammaticalisation and the first type of functional transfer may be the same, but the determinants of these results and the pathways leading to them are very different.

5.2. Constraints

The next question is why there appear to be constraints on the first type of functional transfer (leading to morphological augmentation) but not the second (leading to morphological alteration).

We have seen that for this kind of transfer to occur, there must be a perceptually salient word in the RL, or at least a stressed syllable, that can be interpreted as having a function or meaning related to that of the corresponding SL grammatical morpheme. In the context for this functional transfer outlined above, this is not a problem because the RL available to the SL speakers is a form of the Basic Variety or a restricted pidgin similar to the Basic Variety. In such varieties nearly all morphemes are lexical and generally perceptually salient because these kinds of morphemes are easiest to learn, and at this stage
SL speakers have not acquired the non-perceptually salient grammatical morphemes of the original target language.

The second constraint is more problematic. Why should the need for syntactic congruence between the RL lexical item and the SL grammatical morpheme constrain the first type of functional transfer but not the second?

The “Full Transfer/Full Access” Hypothesis (Schwartz and Sprouse 1996; Schwartz 1996, 1998) may provide an answer. According to this hypothesis, the initial state for L2 learners comprises the entirety of the L1 grammar along with universal principles of language, both constraining interlanguage development. Thus, all the abstract syntactic properties of the L1 are initially transferred, including parameter settings for basic word order. (A similar point of view is the “Conservation Hypothesis” of van de Craats et al. 2000.) According to Schwartz (1998: 147), the way that progress towards the L2 takes place is that input from the L2 that cannot be accommodated to the L1 grammar causes the system to restructure. She observes: “In some cases, this revision may occur rapidly; in others, much more time may be needed.”

For basic word order, the revision (or restructuring) occurs very rapidly. This is most probably because basic word order is a relatively salient structural characteristic (Odlin 1990: 110; Comrie 1997: 369). Other L2 rules, however, are not so salient, and these include morphosyntactic rules for grammatical marking. Schwartz (1998: 148) points out that “convergence on the TL grammar is not guaranteed; … the data needed to force L2 restructuring could be either nonexistent or obscure”.

SL speakers who have gone as far as to acquire the grammatical morphology of the RL have significantly restructured their interlanguage away from their L1 and towards the L2. Thus, they would be aware of the morphosyntactic differences between the languages, but perhaps not aware of some of the more subtle functional differences between grammatical markers that appear to be similar in function, if not in morphosyntax. Therefore the second kind of functional transfer can occur.

SL speakers who have not acquired the grammatical morphology of the RL have restructured their L1 grammars in terms of basic word order, but not in other areas. Therefore, their assumption would be that the remaining features of the L1 and L2 (SL and RL) grammars are equivalent unless input from the L2 disconfirms this. But if they are not targeting the L2, then there will be no disconfirmation (unlike what happens in normal SLA). Thus, if a form from the L2 has a function or meaning similar to a grammatical morpheme in the L1 and the same surface syntactic position, they can be perceived as equivalent and the first type of functional transfer can occur. But if there is no such form, then there is nowhere to transfer to. This is not enough to cause restructuring
because no alternative structure has to be accommodated, but it is enough to constrain transfer.

6. Conclusions

We have seen that the two types of functional transfer each result from a different strategy of morphological expansion in the development of a contact variety: type 1 (morphological augmentation) from untargeted expansion and type 2 (morphological alteration) from targeted expansion in continued L2 learning.

Both strategies may occur in the formation of expanded pidgins and creoles and indigenised varieties. However, the two types of contact languages differ in which strategy was predominant in their development. It appears that pidgins and creoles have more frequently adopted the second strategy – i.e. creating new grammatical morphemes through first type functional transfer – while indigenised varieties have adopted the first strategy – acquiring existing grammatical morphemes from the RL but sometimes changing their functions through the second kind of functional transfer.

The strategy adopted, the resultant type of functional transfer and the degree of retention of transferred features in a contact variety depend on the nature of the contact environment. This can be characterised by three factors: demography, access and identity. The more speakers of SL outnumber speakers of the RL, the greater the possibility of functional transfer by individuals occurring and persisting in a new contact variety. These demographic factors also affect access. For SL speakers to fully acquire the RL, they must have social interaction with RL speakers, and this is unlikely if these are a small minority. However, even when RL speakers are a small minority, access can still occur with widespread formal education in the RL, which can provide the opportunity for learning grammatical morphology without social interaction. This factor clearly differentiates the development of expanded pidgins and creoles – where there was generally no formal education in the lexifier – from that of indigenised varieties, where such education was widespread. Thus the strategy of continued L2 acquisition and the second type of functional transfer, requiring knowledge of RL morphology, is generally common in indigenised varieties but not in expanded pidgins and creoles, and the reverse is true for the first type of functional transfer.

Different contact environments also lead to different proportions of the two types of functional transfer in various contact varieties. In Tok Pisin, for example, there was hardly any access to English (RL) speakers, and therefore nearly all grammatical morphology is the result of untargeted expansion and
characterised by the first type of functional transfer. In contrast, when Hawai‘i Creole was developing, formal education in English was widespread, and thus it incorporated a good deal of grammatical morphology from English, some of which displays functional alteration.9

The final factor is concerned with social identity. Even if the RL is accessible, it might not be accessed. This is because new features of the emerging contact language – some due to functional transfer – may become significant in reflecting local identity, in contrast to the RL-speaking community. Again with regard to Hawai‘i Creole, this would explain why features resulting from the first type of functional transfer, such as ste (stay), remained in the language despite widespread formal education. Along with access, identity issues may also explain differences among indigenised varieties ranging from Singapore English, which displays many examples of both types of functional transfer, to Fiji English, which displays very few.

It appears then that contact varieties can be placed on a continuum based on the prevalence of functional transfer and what type it is. At one end are varieties that exhibit predominantly the first type of functional transfer – morphological augmentation – i.e. expanded pidgins and creoles. At the other end are varieties that do show evidence of language contact, but not functional transfer – for example Australian English. In the middle are varieties that have features mainly attributable to the second type of functional transfer – functional alteration. (See Figure 2.)

At the conference “Rethinking Contact Induced Change”, held at Leiden University in June 2011, one of the questions considered was: Do contact varieties such as creoles reflect essentially different histories of language contact than other languages, or do they constitute the edges of a continuum? This article has shown that the answer is “yes” to both parts of the question. The language-contact history of typical creoles differs from that of other languages in that the RL became a lingua franca for speakers of different SLs but was primarily targeted only for its lexicon and not its grammatical morphology. Therefore a significant amount of the grammatical morphology in creoles is derived from one type of functional transfer – morphological augmentation – that is absent or not so common in the development of other kinds of contact varieties. However, there is no clear demarcation between creoles and other kinds of contact varieties, such as indigenised varieties,

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9 Another factor may be linguistic rather than environmental – i.e. the degree of typological similarity between the SL and the RL. With regard to Hawai‘i Creole, for example, the presence of a progressive suffix and s plural marking in Portuguese may have influenced the adoption of corresponding features from English.
where there is also evidence that this kind of functional transfer occurred. Thus, as shown above, there is a continuum of contact varieties.

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