English as a Contact Language

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Substrate influence and universals in the emergence of contact Englishes: re-evaluating the evidence

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13.1 Introduction

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The debate over this in many ways reflects current disagreement as to whether linguistic universals should be conceived of as innate generalizations written into Universal Grammar – the so-called formalist view (Kiparsky 2008), or rather as universal mechanisms of change that are recurrent across all languages – the functionalist view (Bybee 2008). Proponents of the former position see universals as principles of language design which constrain or determine paths of change, while proponents of the latter view see the causal mechanisms themselves as the only true universals of language, since they operate in all languages at all times. In any case, both schools of thought agree that, however we conceive of linguistic universals, they underlie the emergence of cross-linguistic similarities or typological generalizations.

In this chapter, I argue that tense/aspect systems across contact Englishes provide evidence for functional perspectives on the relationship between universal principles and paths of change. Certain tense/aspect categories such as Future and Past arise via internally motivated patterns of grammaticalization, found universally in language change. Other tense/aspect categories such as

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Perfects and Progressives are more idiosyncratic in nature, since they are shaped by substrate influence in a process of contact-induced grammaticalization. I argue that the mechanism of change underlying this process is imposition, which involves assigning semantic and structural properties of an L1 category to an L2 lexeme via analogy (Winford 2006). The creation of all tense/aspect categories, whether internally or externally motivated, follows universal cognitive tendencies that come into play in language production and processing. Ultimately, it is possible that such tendencies derive from innate principles that are not restricted to language alone, but are part of more general cognitive capacities peculiar to human beings.

The role played by substrate influence as distinct from universal principles in the formation of contact languages has been debated since at least the nineteenth century. As Gilbert (1986: 16) points out, Lucien Adam (1883) suggested that there was a common linguistic substratum underlying the French-lexicon creoles of Trinidad, French Guyana, and Mauritius. On the other hand, Coelho (1880) suggested that there were universal psychological and physiological laws guiding creole formation — an idea that was taken up by Schuchardt and Hesseling, and much later, by Bickerton. Schuchardt was among the first creolists to recognize that both substrate influences and universal processes of change played a role in creole formation. The issue dominated the discussion of creole origins in the 1980s, largely due to Bickerton's proposal that certain similarities across creoles were due to the role played by a language bioprogram that guided children's creation of creoles in the face of deficient pidgin input.

The competing roles of substrate influence and universals was the theme of an entire volume published in 1986, with the title Substrate versus Universals in Creole Genesis. The general consensus of most contributors to that volume appeared to be that expressed in the title of Mufwene's contribution, "The universalist and substrate hypotheses complement each other." Despite this, the general tendency has been to think in terms of substrate influence as opposed to universal principles, as though the two were mutually exclusive. The same debate has been playing out in the literature on contact Englishes, particularly the "indigenized" varieties that arose in colonial settings such as Ireland, Singapore, and so on. Filppula, Klemola, and Paulasto's (2009) anthology is devoted specifically to the question "What exactly is the relationship between language contact phenomena and vernacular universals, and to what extent can we distinguish them from each other?" (2009: 8). Most of the contributors to that volume question the assumed dichotomy between universals and contact-induced change on very similar grounds - viz. that the two interact in various ways to produce the kinds of developments that we find in contact Englishes, including some varieties of so-called "native" Englishes, indigenized varieties, and creoles. Such developments include both shared features such as certain "vernacular universals" proposed by Chambers (2004), as well as

features that are not shared in common, even within the different categories of contact Englishes. But even the similarities are not absolute. Siemund (2009: 324) points out that "there is no reason to believe in a set of universals valid for vernacular data alone, at least not for English." And writing about creoles, Kouwenberg (2006: 207) remarks that

[d]etailed research on various aspects of the grammars of creole languages has shown that profound differences exist below the layer of superficial resemblances and that this holds true in all modules of grammar. With the exception of basic SVO word order, I cannot now think of a single creole "universal" that can still be claimed to hold across, for instance, the creole languages of the Caribbean.

Both Siemund and Kouwenberg are obviously referring to specific universal features of contact languages, and their conclusion reflects the more general observation that there are in fact few absolute unrestricted universals in the world's languages, though there are many cross-linguistic similarities. Typological research has established this quite clearly, and, as Mairal and Gil (2006: 21) point out, "it seems reasonable to assume that universals should not be identified with specific linguistic items or constructions, since these are unequivocally not universal."

Since the goal of this chapter is to explore the contributions of substratal influence and universals in the creation of contact Englishes, we first have to clarify what we mean by "universals." As Smolensky and Dupoux (2009: 468) point out, the term "universals" is used in two quite distinct senses, which are often confused in the literature. One sense refers to the notion of a universal as a generalization about cross-linguistic structures, or what Smolensky and Dupoux (2009: 468) refer to as "a superficial descriptive property true of the expression of all languages - a des-universal" (hereafter referred to as a descriptive universal). The observations above, by Siemund, Kouwenberg, and Mairal and Gil, clearly refer to this sense of "universal." The other sense of "universal" refers to what Smolensky and Dupoux call a cog[nitive]-universal, that is, "a property true of all human minds" (2009: 468). Descriptive universals are associated with functional approaches rooted in the Greenbergian typological tradition, which seek language universals through an empiricist approach that begins with a representative sample of languages and arrives at generalizations based on cross-linguistic comparison. Functionalists are primarily concerned with questions of function, meaning and use of language, hence the data they employ comes from the actual performance of speakers. On the other hand, cognitive universals have been associated more with formalist approaches rooted in the tradition of Chomskyan generative grammar, which propose a set of universal principles that constrain the form of grammars, both in language acquisition and in language change. Such approaches seek a theory of Universal Grammar (UG) conceived of as an innate human language faculty that guides language acquisition and places limits on possible grammars. As Mairal and Gil (2006: 13)

observe, the goal is to "formulate generalizations about the essential nature of language, from which particular language-specific grammatical features can be derived."

It is not, however, true that functionalists do not appeal to cognitive universals to explain similarities across languages. But, rather than viewing language structure and acquisition as guided by universal principles specific to the language domain, they seek to explain universals of language design in terms of human cognitive skills and the influence of individual cognitive abilities on language development (Bavin 2009: 450). Approaches of this type propose that general cognitive capacities, processing constraints, conditions on learning, and the like are themselves universal, and thus give rise to cross-linguistic similarities (Croft 2001; Talmy 2003; Comrie 2003).

The debate between formalists and functionalists concerning the nature and explanation of linguistic universals has recently been extended to the area of language change. This debate has centered primarily on internally motivated change and focused particularly on the concept of grammaticalization. But it has clear implications for the study of contact-induced change as well, particularly since grammaticalization theory has been extended to include the latter type of change. On the one hand, formalists claim that the same universal principles of UG that constrain language acquisition also constrain language change (Kiparsky 2008: 24). On the other hand, functionalists claim that "the true universals of language are not synchronic patterns at all, but the mechanisms of change that create the patterns" (Bybee 2008: 170).

In the remainder of this chapter, I discuss the role of substrate influence and universal principles in the creation of the tense/aspect systems of contact Englishes, with particular focus on two "indigenized" varieties, Irish English and Singapore English, and selected English-lexicon creoles of the Caribbean. I will first show that there are profound differences between the two indigenized varieties, and between them and the creoles, in the organization of their tense/aspect systems. I argue that this follows naturally from differences in the sociohistorical contexts and linguistic inputs that were involved in their creation, the latter leading to different types of substratal influence. On the other hand, the creoles display substantial similarities to each other both in the inventory of their tense/aspect categories, and in the meanings and uses of the categories. These similarities follow from the fact that these languages arose in very similar sociohistorical contexts involving similar linguistic inputs that led to similar substratal influence. This does not mean, however, that their tense/aspect systems are identical in all respects. The differences we find across the languages suggest that there is no single mold into which we can fit the tense/aspect system of contact Englishes. In other words, there are no absolute universals of tense/aspect, even among creoles. However, this does not mean that there are no universal principles at work in the formation of contact Englishes. Clearly, these have

to be sought at a higher level of abstraction. I explore this question in relation to the role of grammaticalization in the processes of change that created the tense/aspect systems. I show that both internally and externally motivated (contact-induced) grammaticalization was at work in these processes, and that both followed universal paths that have been found in cases of grammaticalization across languages. I finally argue that such paths are indeed constrained by universal cognitive principles, though the two types of grammaticalization differ with respect to the nature of the mechanisms involved. On the one hand, the mechanisms of internally motivated grammaticalization in contact Englishes are the same as those found in similar kinds of change cross-linguistically. For contact-induced grammaticalization, I propose that the mechanism involved is imposition, and that this too can be viewed as a universal mechanism of contact-induced change.

13.2 Descriptive universals and tense/aspect in contact Englishes

As Croft (2003: 14) points out, grammatical categories such as tense and aspect are usually identified cross-linguistically on the basis of their meaning and use, rather than their formal properties. This raises the question of precisely what constitutes a sound semantically based set of criteria for cross-linguistic comparison of tense/aspect categories. The problem here concerns the kind of metalanguage we use for such comparison - a problem that is of course common to attempts at typological comparison in general. For instance, with regard to the use of notions such as "subject," "adjective," "syllable," "pronoun," etc., Evans and Levinson (2009: 439) point out that "they are descriptive labels, emerging from structural facts of particular languages, which work well in some languages but may be problematic in others. Consequently, for the most part they do not have precise definitions shared by all researchers, or equally applicable to all languages." The same problem faces us when we attempt to compare categories such as tense and aspect across languages. Should we base our comparison on semantic notions or on the categories themselves? Choice of the former seems preferable in view of the fact that some languages (e.g. Chinese and Malay) lack tense categories altogether (Comrie 1985: 50-5), while others (e.g. spoken German) lack aspectual categories (Comrie 1976: 8). Moreover, languages in general grammaticalize the relevant semantic notions in very different ways.

But identifying a set of universal cognitive dimensions of temporal notions is an extremely difficult task, and there is no consensus among either functionalists or formalists, as far as I am aware, as to what such dimensions might be. I do not intend to discuss that issue here, but I will base my comparison of contact Englishes on the actual tense/aspect categories found in these languages. Most functionalists and formalists adopt

this basis of comparison. The approach I take here is discussed more fully in other studies (Winford 2000a, b; 2001). It is modeled on typological studies of Tense, Mood, and Aspect (TMA) systems conducted by researchers such as Dahl (1985), Comrie (1976, 1985), Bybee, Perkins, and Pagliuca (1994), and others. The framework rests on the following assumptions, repeated here from Winford (2001: 156–7).

 Comparison is based on actual TMA categories, rather than on the semantic features out of which such categories can be built. As Dahl explains:

I shall suggest that the most salient universals or, better, basic units of the general theory of TMA systems are rather atoms than elementary particles – i.e., categories rather than features. More concretely speaking, this means that I think of a language-specific category like, say, the English Perfect, as the realization of a cross-linguistic category – or better, category-type – PERFECT, rather than as the realization of a set of features, say /+x, -y, +z/. (1985: 33)

In the following, I adopt Dahl's practice of using capitals to refer to category types (e.g. PAST), initial capitals to refer to language-specific categories (e.g. the English Past), and lower-case letters with single quotation marks to refer to notional semantic categories (e.g. 'past').

2. TMA categories in every language typically have a range of meanings and uses, i.e. interpretations in discourse.

3. Every TMA category has a dominant meaning and often has other secondary meanings. In general, the dominant meaning of a category is represented in its primary or prototypical uses, while secondary meanings are interpretations that arise from contextual uses of the category. As Dahl explains,

the main criterion for identifying TMA categories cross-linguistically is by their foci or prototypical uses, and ... languages vary essentially in two respects: (i) which categories they choose out of the set of cross-linguistic categories and (ii) how they reduce the impreciseness that these categories have in choosing among the possible secondary or non-focal uses they have. (1985: 33)

Even a casual overview of the tense/aspect systems of contact Englishes reveals that there are no absolute universals or even statistically robust generalizations. Winford (2009) compares the tense/aspect systems of Irish English, Barbadian Creole (Bajan), and (colloquial) Singapore English, and demonstrates that they differ significantly both in their inventories of tense/aspect categories and in the types of meaning and uses they assign to their own instantiations of cross-linguistic category types such as PAST, FUTURE, PROGRESSIVE, HABITUAL, and PERFECT. Table 13.1 illustrates this.

Table 13.1 Tense/aspect categories in three contact Englishes

	Irish Eng.	Barbadian English	Singapore English
Time reference:			
Simple present	ø ~ −s	ø (statives)	ø (variable 3sg-s)
Simple past	V-ed	ø (non-statives)	ø (variable-ed)
Relative past	n/a	did + V	n/a
Future	shall/will + V	go(n) + V	would + V V + fut, adv.
			. ,
Aspectual reference:			
Pres. habitual	Inflected do + V 'Finite' be + VP	does + V	useto + V
Past habitual	used to + V	useto + V	
Progressive	be+ V-ing	V-m	(be) V-in
Types of Perfect;			
Perfect of result	have NP V-ed	done + V	VP already
	Cop. be+ V-ed	wo.ne 1	VI wireway
'Hot news' Perfect	after V-ing	n/a	n/a
Experiential	n/a	n/a	ever + VP

The differences among these three contact varieties of English follow naturally from the fact that they emerged under very different sociohistorical circumstances, involving differences in demographics and linguistic inputs, as well as differences in patterns of interaction between speakers of the languages in contact (Winford 2009). Similarly, differences in the sociohistorical setting and the linguistic inputs explain the significant differences we find across English-lexicon creoles, including the so-called "expanded pidgins" of the Pacific.

If we confine our attention to the more "radical" or "basilectal" varieties of English-lexicon creoles found in the Caribbean, the similarities are far more noticeable, but the creole tense/aspect systems are by no means identical. This is interesting, since several of these English-lexicon creoles were mentioned by Bickerton among those that he claimed to display the famous "tri-partite" organization of the TMA system into an "irrealis" mood, a "non-punctual aspect" and an "anterior" tense. Various recent studies and comparisons of tense/aspect systems in creoles in general (Singler 1990) and Caribbean English-lexicon creoles (CEC) in particular (Winford 2001) have shown that there are no tense/aspect universals shared by these contact Englishes, and no evidence for the claim that has sometimes been made that their tense/aspect categories are in some sense predetermined by Universal Grammar, in the sense that Bickerton's (1984) Language Bioprogram Hypothesis (LBH) proposed.

However, the similarities among the tense/aspect systems of Caribbean English-lexicon creoles are striking, and invite further explanation. Table 13.2 (from Winford 2001: 177) illustrates the tense/aspect categories that all "basilectal" varieties of CEC share.

Table 13.2 Tense/aspect in New World creoles: the common core

Tense categories: Relative Past Predictive Future Aspect categories: Perfective ø Completive Perfect	bin and variants go in most cases, wã and wi in Belizean and JC respectively the unmarked verb, with differences in range of uses don or kaba, with differences in range and positioning
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These categories, with some relatively minor exceptions, display a very similar range of primary and secondary uses in discourse across all these creoles, though they are not identical in all respects. In addition, there are several other aspects in which these creole tense/aspect systems resemble one another. Aspectual categories are neutral with respect to time reference, which they pick up from the discourse context. Moreover, in all these creoles, the stative/non-stative distinction is crucial to the interpretation of temporal and aspectual meaning. The creoles differ somewhat in other respects; for instance some have a category of Progressive aspect while others have an Imperfective category.

Some of the similarities are due simply to the fact that these creoles arose in similar sociohistorical ecologies, with very similar linguistic inputs, and were influenced primarily by substrate languages of the (New) Kwa family, with secondary influence from Bantu languages. Such influence led to very similar types of contact-induced change, yielding categories such as Progressive and Completive Perfect. But the creoles also display marked similarities in categories such as Past and Future, which do not appear to be modeled on any substrate categories, but seem to have emerged through regular processes of internally motivated change.

In addition, categories such as Progressive and Perfect underwent further paths of development in different creoles, yielding Imperfective in the former case, and different pragmatic functions of Perfect in others. In short, the tense/aspect systems of Caribbean English-lexicon creoles, like those of contact Englishes more generally, are a miniature reflection of the much larger picture of similarities and differences that we find among tense/aspect systems cross-linguistically. The explanation for this is similar to that offered by Bybee (2006: 190) for why absolute universals of language are rare, even though the mechanisms of change are the same:

Because they were produced by the same mechanisms across languages, they resemble one another. Because they were produced in different languages with different linguistic material as input to the process, with some differences in the contexts of use, the outcomes are similar but not identical.

In the following section, I discuss the role played by substrate influence and universal mechanisms of change in the creation of these tense/aspect categories, and relate both kinds of influence to the role of grammaticalization in creole formation.

13.3 Grammaticalization and the creation of tense/aspect in Caribbean contact Englishes

The creation of certain tense/aspect categories in creoles generally, and those of the Caribbean in particular, involved processes of both internally and externally motivated grammaticalization. The latter type has traditionally been described as a manifestation of substrate influence. The different contributions of these processes led to both a certain degree of similarity between tense/aspect categories, and on the other hand, to differences in the inventories of tense/aspect categories found in these languages. Both processes involved universal mechanisms of change which have been explored most thoroughly by functionalists in the domain of grammaticalization. For present purposes, I will adopt Heine and Kuteva's definition of grammaticalization as "a process leading from lexical to grammatical and from grammatical to more grammatical forms" (2005: 14). Thus, both the reanalysis of lexical items as grammatical items and the further reanalysis of the latter are viewed here as cases of grammaticalization. Moreover, following Joseph (2004), in my view it is an epiphenomenon - a cover term for a variety of processes involved in the creation of grammatical categories, including reanalysis, semantic bleaching, phonetic reduction, and so on. In other words, I do not view it as a unitary process, nor as a "mechanism" of change.

The study of the grammaticalization of tense and aspect categories crosslinguistically has provided robust evidence for the recurrence of the same paths of change (Bybee et al. 1904; Hopper and Traugott 1993). For instance, perfects develop from resultative constructions involving 'be' and 'have' + PP, or from verbs meaning 'finish.' Progressives develop from constructions containing locative copulas, or from verbs of movement such as 'go' and 'come.' Futures develop from verbs meaning 'want' or 'have to,' or expressing 'movement toward,' or from temporal adverbs meaning 'soon' or 'after' (Bybee 2006: 184-5). Bybee argues that "This remarkable similarity in grammaticalization paths across unrelated languages strongly suggests that universals of diachronic development be included in a theory of language universals" (2006: 186). Bybee's observations apply to internally motivated grammaticalization, but a similar claim can be made for contactinduced grammaticalization, which involves the transfer of grammatical meanings and structures across languages. Indeed, Heine and Kuteva argue that such transfer "is regular, and is shaped by universal processes of grammatical change" (2005: 1). However, they do not explain precisely

what these universal processes are, but suggest that "the general mechanism shaping the development of grammatical categories is the same irrespective of whether or not language contact is involved" (2005: 266). In the following two sections, I discuss the roles of internally and externally motivated grammaticalization in the creation of tense/aspect categories in Caribbean English creoles and then assess the claim that the same universal mechanisms are involved in both kinds of change. I will in fact argue that each involves somewhat different kinds of cognitive mechanisms, though both kinds of mechanism seem to be due to universal principles.

13.4 Internally motivated grammaticalization and tense/aspect in contact Englishes

I claim that the two tense categories, Relative Past and Future, found in various contact Englishes, including the more radical or basilectal varieties of Caribbean English creole (CEC), are primarily the result of processes of internally motivated grammaticalization. Future tense markers derive from go in all varieties of CEC except Belize Creole, which has a Future derived from want. Examples are from Winford (2001: 165).

(r) Sranan

Pas te unu kaba nanga skoro dan only when 1pl finish with school then Ipl FUT meki pikin nanga den sani dati. (16B: 12) make child and the.pl thing DEM 'Only when we finish with school, then we'll have kids and all those things.'

(2) Belizean

Junie see i wa kom luk fi yu wan a diiz deez. (18:11) Junie say 3sg FUT come look for you one of these days 'Junie says she'll come and look you up one of these days.'

A third example of the grammaticalization of Future from a temporal adverbial comes from Tok Pisin, where baimbai < by and by developed into a Future marker bai, which is increasingly occurring in preverbal position (Siegel 2008: 64).

These developments closely parallel the emergence of future markers cross-linguistically as illustrated in the following path of change, taken from Bybee (2006: 185).

The Future path

- 'want'
- (ii) 'movement towards' > INTENTION > FUTURE
- (iii) 'soon,' 'after'

The Relative Past Tense category is expressed by forms derived from English been, though its phonetic form varies across the creoles (ben in Sranan, (b)en/wen in Jamaican, mi (< min < bin) in Belizean, and bin in Guyanese).

(3) Sranan A man ben kiri kapoewa, ala meti san kon a ben kiri.

The man PAST kill kapoewa all animal REL come he PAST kill 'The man had killed kapoewa, every animal that came, he killed.'

(4) Belizean

De mi hav wã man we de mi juuztu They PAST have a man REL they PAST used-to kaal ool dik arnal.

call old Dick Arnold

'There was a man whom they used to call old Dick Arnold.'

No substrate influence seems to have been involved in the emergence of this category, since the relevant substrates, Gbe in particular, lack a past tense category. A similar development of Past tense is also seen in Pacific contact Englishes such as Tok Pisin (Sankoff 1991: 301) and Hawai'i Creole English (Siegel 2000, 2008).

In these cases, the grammaticalization path seems to be from actual movement toward some goal in the past, to semantic bleaching of the movement content, and retention of the purely temporal notion of pastness.

The Past path

Movement to a goal in the past > completion of goal > past I been see him = 'I went and saw him' > I saw him.

13.5 Universal mechanisms of grammaticalization: cognitive universals

Bybee (2008: 109) argues that the mechanisms involved in these paths of change have the following properties:

- They are universal in the sense that they can be found operating in languages at all times:
- · They are relatively few in number;
- They involve neuro-cognitive tendencies that manifest themselves as language is produced and processed;
- · They apply during individual usage events;
- The cumulative effect of their application over multiple usage events creates grammar.

The property of most immediate interest to the present discussion is that concerning the neuro-cognitive tendencies that operate during language

production and processing, to bring about change. As Bybee (2008: 110) notes, it is these innate neuro-cognitive capacities of human beings that give rise to their "ability to create language systems through categorization, analogy, neuromotor automatization, semantic generalization, and pragmatic inferencing." These processes are at work in non-linguistic activities as well, reflecting the fact that "[l]anguage is highly evolved but not totally distinct from other neuromotor and cognitive abilities" (Bybee 2006: 194). Hence there is no need to postulate language-specific cognitive universals. This reflects a general tendency among functionalists to seek explanations for cross-linguistic similarities (descriptive universals) in cognitive factors that apply to human abilities other than language. While such explanations have been advanced particularly to account for cases of language-internal grammaticalization, I will argue later that there are similar cognitive principles at work in cases of contact-induced grammaticalization, as evidenced in contact Englishes. In the next section, I discuss the latter type of change with regard to the emergence of tense/aspect categories.

13.6 Contact-induced grammaticalization and tense/aspect in contact Englishes

It has long been recognized that the creation of contact Englishes involves processes of change in which superstrate lexical items or morphemes are reinterpreted as expressions of various functional categories, including articles, plural markers, complementizers, and tense aspect markers, among others. Such changes have been described variously as cases of reanalysis, transfer, convergence, interference through shift, and so on. More recently, it has become widely accepted that such developments are best seen as instances of contact-induced grammaticalization, and this approach has been applied to various contact Englishes, including Irish English (Pietsch 2005, 2000), Atlantic creoles (Bruyn 1995, 1996, 2008) and Pacific "expanded pidgins" (Keesing 1991). The extension of the grammaticalization framework to the study of contact Englishes is welcome, since the study of this process has been perhaps the most important contribution to functionalist attempts to map "the complex temporal sub-processes by which grammar emerges as frequently used patterns sediment into conventionalized patterns" (Evans and Levinson 2009: 444). A new dimension was added to this research program by Heine and Kuteva's (2003, 2005) use of the grammaticalization framework to account for the replication of grammatical functions and categories in cases of language contact. They introduced the notion of contact-induced grammaticalization to refer to such types of replication, which have traditionally been referred to by a variety of terms, including grammatical calquing, loanshift, indirect morphosyntactic diffusion, interference, and so on. It has become clear that this kind of grammaticalization is extremely common in language-contact situations, and it may well be that, like internally motivated

grammaticalization, it is due to universal mechanisms of change. However, there has been little discussion of what these mechanisms might be and I return to this point below.

Heine and Kuteva (2005) distinguish between two types of grammaticalization due to contact, viz., ordinary contact-induced grammaticalization and replica grammaticalization. The distinction rests on "whether or not there exists already a model source-to-target grammaticalization process to be replicated" (2005: 80). I will restrict my attention here to "replica grammaticalization," in which "the model language provides a model for both a category and the way that category is replicated" (Heine and Kuteva 2005; 80); see also Fischer (this volume). This type of grammatical replication is based on at least some kind of semantic similarity between the relevant items in the two languages in contact, and appears to be a far more common occurrence cross-linguistically, and certainly in creoles. According to Heine and Kuteva, this kind of grammaticalization involves the following "mechanism" (2005: 92).

Replica grammaticalization

- a. Speakers notice that in language M there is a grammatical category Mx.
- b. They create an equivalent category Rx in language R on the basis of the use patterns available in R.
- c. To this end, they replicate a grammaticalization process they assume to have taken place in language M, using an analogical formula of the kind:
- d. [Mv > Mx]: [Rv > Rx].
- e. They grammaticalize Ry to Rx.

Heine and Kuteva cite the now familiar example of the after Perfect in Irish English, which is modeled on a similar category in Irish, as shown in the following examples:

- She's after selling the boat (5) 'She's just sold the boat'
- sí tréis an bád a dhíol (6) Be+NONPAST she after the boat selling 'She's just sold the boat' (Harris 1984: 319)

The ubiquity of contact-induced grammaticalization is now well established, thanks in great measure to the work of students of contact Englishes, and scholars in the field of contact linguistics in general. Heine and Kuteva (2005) provide an extensive overview of instances of contact-induced grammaticalization in many languages, involving a wide variety of functional categories, including determiners, adpositions, complementizers, subordinators, and various TMA categories. The literature on contact Englishes is also full of examples of the creation of functional categories through processes of contact-induced grammaticalization.

The vast majority of cases of contact-induced grammaticalization found in contact Englishes involve replica grammaticalization. I will illustrate this with respect to the emergence of types of PERFECT in some of these languages. This is especially revealing with respect to the similarities and differences in the meanings, uses, and syntactic properties of these categories, and the complementary roles played by universal cognitive principles and substrate influence in their creation. I will first discuss the latter influence, and return later to the universal mechanism that underlies the process of change.

Many contact Englishes have a type of PERFECT that is expressed by a marker derived from a verb meaning 'finish.' This follows a well-known and frequently occurring path of grammaticalization found in many languages. which Bybee (2006: 184) characterizes as follows:

'finish' > COMPLETIVE > ANTERIOR > PERFECTIVE/PAST

In the contact Englishes described here, this path of change has culminated in the creation of what Bybee calls "anterior" categories, which I will refer to as Perfect categories. Bybee suggests that this constraint on the path of development is typical of analytic languages, which (in addition to their young age) may explain why creoles in particular do not carry the grammaticalization process to its end point.

Varieties of Caribbean English creole (CEC) share the category of Completive Perfect, expressed by don < done, which is also used as a main verb meaning 'finish.' For the most part, the Perfect marker occurs preverbally, as in the following example:

(7)Belizean a tel a a di iit, man, weet til a don iit no sa. (11: 15) 'I told him I'm eating, man, wait till I finish eating please sir.'

The Surinamese creoles also have a Completive Perfect category, expressed by kaba (< Portuguese acabar 'finish'), which appears in VP-final position, as in the following example:

(8)Sranan A kownu doro kaba DET king arrive COMPL 'The king has arrived.'

Winford and Migge (2007: 84) demonstrate that the category is closely modeled on the Completive aspect category found in Gbe languages, as illustrated in the following example.

(g) Ajagbe xòsu lo à, e vá lá King DET TOP he come arrive COMPL 'As for the king, he has already arrived.'

In both Surinamese creoles and Gbe languages, the aspectual marker also functions as a main verb meaning 'finish.' This is a clear case of what Heine and Kuteva refer to as "replica grammaticalization." Interestingly, in Guyanese and Jamaican creoles, Completive Perfect don can appear in both preverbal and VP-final positions, perhaps reflecting a shared influence from the substrates, or possibly the influence of contact with Sranan.

Other contact Englishes that developed a Resultative Perfect category expressed by a marker derived from a verb meaning 'finish' include the three varieties of Melanesian Pidgin (Tok Pisin, Bislama, and Pijin), and Hawai'i Creole English (HCE). In the former, the category is expressed by pinis 'finish,' which occurs in VP-final position, as in the following example:

(10) Mipela lukim ol pik pinis

1pl see PLU pig PERF

'We have seen the pigs.' (Siegel 2008: 7)

In HCE, the Perfect is expressed by pau (< Hawaiian Pidgin pau 'finish'), which occurs preverbally.

(II) Wen Pilipo been pau talk, me I feel gul insi
When Pilipo PAST COMPL talk me I feel good inside
'When Pilipo had talked to me, I felt good inside.' (Roberts
1998: 26)

Siegel (2008: 82) notes that it is not clear whether pau was already grammaticalized in Pidgin Hawaiian, so it is possible that pau underwent language-internal grammaticalization in HCE.

The differences in the precise paths of grammaticalization followed by the Resultative Perfects expressed by 'finish' are reflected in the differences in the range of meanings and uses associated with this category across the Atlantic creoles. For instance, Jamaican Creole is exceptional among CECs in limiting its Completive Perfect marker don to non-stative predicates, while other varieties allow use of don with predicates of all types. Guyanese Creole distinguishes between two types of preverbal don, one with high pitch which is generalized to all predicates and conveys the sense of 'already,' and another with low pitch which is used primarily with nonstatives and conveys the sense of 'finish' (terminative) (Winford 1993: 55-6). Nigerian Pidgin uses preverbal don in ways quite similar to CEC. Mann (1996) informs us that it marks 'perfect' and provides examples of its use with activity verbs like bil 'build' and adjectivals like taya 'tired.' It is not clear whether it can also precede statives like 'have,' 'know' etc. In addition, Nigerian Pidgin uses finish as a VP-final marker of completion. Such differences indicate that different creoles adopted different strategies in creating and further grammaticizing their categories of Resultative Perfect. Explanations for the differences have to be sought in the different degrees to

which substrate influence and internal developments played a role in the shaping of these categories.

Other contact Englishes provide equally interesting examples of the emergence of different types of PERFECT via replica grammaticalization of other English lexical items. For instance, Singapore Colloquial English has two Perfect categories – a Resultative expressed by already, and an Experiential Perfect expressed by ever. Bao (2005) argues that the meaning of already is modeled on that of the Chinese Resultative marker le, while the use of ever is modeled on the Chinese Experiential Perfect marker guo. Platt and Weber (1980: 66) suggest that the Hokkien Resultative marker liaú also provided a substrate model. A very similar use of already to mark a Resultative Perfect is found in Hawai'i Creole English, and this appears to be modeled on the Resultative markers found in the substrate Chinese varieties, such as Cantonese jó and Hokkien dóu (Siegel 2008: 151).

The development of subtypes of PERFECT from verbs meaning 'finish' and other sources is not of course confined to English-lexicon creoles. It has been well documented for French-lexicon creoles (Detgers 2000), and Iberian-lexicon creoles (Stolz 1987). In some cases, it can be argued that the development was primarily language-internal. But in the vast majority of cases, substrate influence played the major role. What is interesting is that the development in all cases followed the general paths of change that are typical of the emergence of Perfect categories cross-linguistically, with differences in the substrate inputs and internal developments within each creole leading to somewhat different outcomes. Detgers (2000) provides an illuminating account of how such different outcomes arise through differences in pragmatic inferencing, with illustration from the grammaticalization of fini (< French finir 'to finish') in various French-lexicon creoles. As Bybee (2008: 110) points out, while the mechanisms underlying grammaticalization "are applicable in all languages at all times, leading and producing the common paths of change as illustrated above, these mechanisms also sometimes produce other outcomes, making it possible to have other, minor paths of change as well, depending upon their interaction and the type of linguistic material they apply to." In the next section, I discuss the primary mechanism that seems to lie behind the process of contact-induced grammaticalization.

13.7 Imposition as a mechanism in contact-induced grammaticalization

Though they have introduced a valuable new framework for dealing with contact phenomena, Heine and Kuteva fail to provide any principled explanation for the mechanisms they claim produce contact-induced grammaticalization. They themselves acknowledge that the mechanism they suggest for replica grammaticalization would imply that speakers replicate

a historical process that took place much earlier in the model language, but they note that this is obviously not the case (2005: 93). And while they claim that ordinary contact-induced grammaticalization follows "universal principles of grammaticalization" (2005: 93), they make no such claim for replica grammaticalization, and in fact conclude:

There is virtually no information on what conceptual cues speakers may have to reconstruct a process presumed to have taken place in the model language, and it is not always possible on the basis of the evidence to distinguish neatly between ordinary and replica grammaticalization. (2005: 92-3)

There is clearly need for a clearer explanation of how speakers manage to "replicate" a grammaticalization process. In fact, Heine and Kuteva themselves hint at such an explanation when they suggest that the agents of grammatical replication use an analogical formula of the kind [My > Mx]: [Ry > Rx]. What this implies, correctly in my view, is that replica grammaticalization in fact relies heavily on analogical inferencing - one of the universal cognitive abilities that come into play in many kinds of language change. I would therefore argue that analogy is the primary cognitive factor involved in contact-induced grammaticalization. But I would also suggest that the role of analogical inferencing is to trigger the actual mechanism that results in the creation of a new grammatical category. I propose that this mechanism is imposition and that it underlies all of these kinds of contact-induced change, and that it is related to more general cognitive processes that are involved in natural second language acquisition and processing, as well as in other kinds of language-contact situations.

The term "imposition" was introduced by van Coetsem (1988) to refer to a transfer type that has traditionally been referred to by a variety of terms. including "interference via shift," "indirect diffusion," and "substratum influence." In fact, the term describes a transfer type which is more general than these labels imply, and which is found in situations of second language acquisition, language attrition, and other situations of language contact. In imposition, the speaker, as agent of change, is linguistically dominant in the source (or model) language, and transfers features of it into his version of the recipient (or replica) language, "as in the case of a French speaker using his French articulatory habits while speaking English" (van Coetsem 1988: 3). Van Coetsem refers to this as Source Language (SL) agentivity. Imposition is conceived of as a psycholinguistic mechanism that involves simply applying the language production and encoding procedures of a linguistically dominant language to produce a less familiar language. As such, imposition and the type of agency associated with it are compatible with psycholinguistic models of language production such as that introduced by Levelt (1989) and subsequently adapted by de Bot (2000) for bilingual language production (see also Odlin, this volume). The workings

of imposition are clearly manifest in cases of natural second language acquisition, particularly in early stages, when learners have not yet acquired all of the grammatical information (or lemmas) associated with the L2 lexemes they can produce. As Pienemann (1998: 50) puts it, learners have not indexed newly acquired lexical items to their lemmas, hence they cannot use the L2 lemmas as a basis for producing larger syntactic structures. So they tend to fall back on the lemmas associated with semantically equivalent items in their L1s, to supply the information necessary for them to initiate more complex syntactic procedures. The same applies to the acquisition of functional categories such as tense and aspect. As Bickerton (1988: 278) noted, the elimination of inflectional morphology in the early stages of creole formation resulted in, among other things, a loss of TMA markers. Hence these had to be reconstituted in the elaboration of creole grammar. If learners have continuous and adequate access to the L2, they gradually acquire the relevant grammatical information and learn how to reproduce L2 syntactic procedures. On the other hand, if access to the L2 is restricted, or if the L2 input consists only of highly simplified structures or pidginized varieties, as in many cases of creole formation, then learners impose L1 lemmas on the L2 lexemes. The grammaticalization of tense/aspect categories in creoles largely involved imposing the lemmas associated with substrate functional categories on superstrate lexical items. For imposition to take place in these cases, it is sufficient for learners merely to have access to the semantics of an L2 lexical item, and its syntactic category. For instance, the grammaticalization of kaba as a marker of Resultative Perfect in Sranan involved two stages. First, learners established an interlingual identification between the lexical item kaba and its Gbe counterpart vò, on the basis of their semantic similarity. Then they associated the aspectual function of the substrate lexical item to its superstrate counterpart, by simply transferring the lemma of the former to the latter. Other approaches have explained this process in terms of "relexification" and "reanalysis" (Lefebvre 1996), or "functional transfer" (Siegel 2008). Such explanations are quite compatible with the notion of imposition as described here, but the notion of imposition captures the psycholinguistic process involved in these types of grammaticalization more clearly by linking it more directly to the language production procedure.

13.8 Imposition as a cognitive universal?

As Smits (1998) and Winford (to appear) have argued, imposition as a mechanism of contact-induced change occurs in a wide variety of situations, including second language acquisition (language shift), creole formation, gradual attrition of an ancestral language under conditions of shift to a new primary language, and cases of structural convergence. What all of these situations have in common is an unequal dominance relationship

between the languages in contact, which encourages transfer from a linguistically more dominant to a less dominant language. If it is true that imposition is the mechanism underlying so many types of contactinduced change, then it must be considered among the universal mechanisms of change that are associated with language contact. More particularly, it is a mechanism that involves universals of language processing, and communicative strategies that are part of general human cognitive abilities. It is therefore quite in keeping with functionalist perspectives on the cognitive mechanisms that are associated with language acquisition, language use, and language change. As mentioned earlier, functionalists seek explanations for cross-linguistic similarities in cognitive abilities that apply to human abilities other than language. In their view, "a property common to languages need not have its origins in a 'language faculty' or innate specialization for language" (Evans and Levinson 2009: 439; italics in original). Instead, it could be "due to other factors, including other mental capacities, the design requirements of communication systems, the shaping of structure to fit the uses to which it is put, and the shared experiences of human beings" (Evans and Levinson 2009: 439). In short, shared cross-linguistic tendencies "result from myriad interactions between communicative, cognitive, and processing constraints which reshape existing structures through use" (Evans and Levinson 2009: 444). At the same time, differences in the outcomes of these universal mechanisms can be explained with reference to differences in the social and cultural histories of the speakers concerned. As Bybee (2008: 110) observes:

The ability to create language systems through categorization, analogy, neuromotor automatization, semantic generalization, and pragmatic inferencing derives from the innate neuro-cognitive capacities of human beings.

It is precisely these kinds of cognitive ability that are brought to bear in contact-induced change. It seems clear that the cognitive process of analogical inferencing is closely associated with the mechanism of imposition, which I have proposed here as the primary instrument in the processes of contact-induced grammaticalization that we find in contact Englishes. The mechanism comes into play during the language production process itself. when speakers draw on their knowledge of a more dominant language in producing a less dominant one.

13.9 Conclusion/outlook?

It remains for future research to test the hypothesis concerning the role of imposition as a universal mechanism of contact-induced change, and to relate it more directly to the role of cognitive factors in promoting such change. In particular, there is need for more research on the production

strategies used by speakers in contact situations, whether they are learning a new language, shifting to a new one, or manipulating two languages simultaneously as more balanced bilinguals. In the long run, such research may reveal that the apparent divide between formalist and functionalist approaches to universals of language change may be in fact narrower than it now appears. Formalists do acknowledge that "the constraints imposed by the language faculty as well as those derived from other cognitive, anatomical and perceptual abilities play an active role in language variation and change" (Mendívil Giro 2003: 197, quoted by Mairal and Gil 2006: 35). Newmeyer (2004: 684) states: "There is no question in my mind that grammars have been shaped by processing considerations - that is, by language use." Such views are quite compatible with functionalist approaches to language acquisition and change. In the final analysis, explanations of language acquisition and change in terms of innate principles of language design and organization are not necessarily at odds with explanations based on properties of human processing and other cognitive abilities.