Typologizing grammatical complexities:  
A reassessment of phonological “exceptionality” in creole simplicity

1 Introduction

McWhorter’s (2001a) provocative title, “The world’s simplest grammars are creole grammars”, is emblematic of an important line of work within creole studies that suggests contact languages are often simplified with respect to the source languages from which they draw lexical and grammatical material (though McWhorter, of course, makes an even stronger claim). There is no denying that this basic idea is controversial, with scholarly criticisms ranging from those who are not willing to accept it without qualification but would not necessarily reject it entirely (see, for example, Plag (2008:117, fn.4)) to those which characterize it as resting on a fundamentally invalid mode of argumentation (DeGraff 2005).

Here, I, too, would like to take up the issue of simplicity in creole grammars. However, I hope to sidestep many of the controversies associated with it by focusing not directly on the question of whether or not one grammar is simpler than another according to whatever metric we may devise but, rather, on the nature of different kinds of complexities that may be found in grammars. My core argument will be that we should be wary of treating all complexities equally when examining the nature creolization and that we should expect some kinds of simplifications to be more common under creolization than others. The argumentation here will be largely anecdotal, relying on cases I believe to be illustrative, rather than attempting to create a rich, balanced data set. To that extent, this paper should be taken as suggestive of a research program rather than as a definitive argument in its favor.

Despite this, I believe that this paper will still be able to make an immediate contribution to the wider debates on creole simplicity by dealing with an apparent discrepancy between cre-
ole “phonology” and “morphosyntax”. In his reply to the comments on McWhorter (2001a), McWhorter (2001b:391) writes, “While I still believe that older languages are more complex overall than a crucial subset of creoles, if it is found that older languages can have less complex phonologies than creoles, then it will be interesting and fruitful to seek a principled reason why this should be so in this particular module of language but not others.” One conclusion of this paper will be, in fact, that it is premature to posit that there is any fundamental difference between phonology and morphosyntax with respect to simplification. Rather, the relevant literature has been comparing phonological “apples” to morphosyntactic “oranges”. In other words, it is not that phonology and morphosyntax are different but that there are different kinds of grammatical complexities and, for largely accidental reasons, the “showcase” phonological phenomena have happened to represent complexities of a different type than the showcase morphosyntactic phenomena.

In the rest of this paper, I present one possible typology of grammatical complexities in section 2. I then classify prominent instances of complexities with respect to that typology in section 3. Section 4 discusses how a model of creolization assuming a stage that will be referred to here as jargonization predicts loss of some complexities but not others during creolization, which, thereby, suggests that jargonization is the process triggering some of the observed kinds of simplification in creoles. The conclusion of this paper, section 5, attempts to position the overall argument with respect to the larger debates on the status of simplification in creolization and suggests a role that work on this and related topics may be able have in advancing studies both of the typology of creoles specifically and linguistic typology more generally. As will be clear from the discussion, many of the ideas discussed in this paper can be found elsewhere in the literature. It is intended, therefore, not so much to break new ground, as to bring pre-existing strands of thought together to help clarify current debates relating to grammatical complexity and simplicity both for language in general and for creole languages in particular.

Before moving forward, I should point out that my orientation in this paper is largely descriptive, as opposed to formal, and focused on language as a social phenomenon rather than a mental
one. My adoption of the latter perspective, to some extent, guides my adoption of the former one. Since most formal models of grammar are concerned precisely with modeling the knowledge of individual speakers, they are not well-suited to modeling the communal aspects of language. The logic of modeling language at the community-level here, I hope, will be made clearer over the course of the paper wherein it will be argued that the nature of the particularly restrictive kind of community involved in the creation of a jargon can be readily associated with a particular kind of grammatical simplification.

2 Towards a typology of complexities

2.1 Structural complexities

Work like McWhorter (2001a) (see also McWhorter (2007) and Parkvall (2008)) has focused on comparing different sets of languages for complexity across varying dimensions of grammar rather than theorizing on the nature of complexities themselves (though, see Karlsson et al. (2008:vii-ix) for brief application of a general theory of complexity to some notions of linguistic complexity and Nichols (2009) for a development of a metric of grammatical complexity which bears some similarities to the approach taken here). Here, I am relatively uninterested in the former problem—i.e., cross-language comparison—in favor of the latter. Following ideas found in Moravcsik and Wirth (1986:7)), I believe one useful typology of linguistic complexities can be delineated as in (1), which includes definitions of two types of structural complexities in grammars.

(1) a. **Syntagmatic complexity:** Complexity deriving from the structure of a given linguistic object.

b. **Paradigmatic complexity:** Complexity deriving from the range of sub distinctions available within a particular, grammaticalized (in a broad sense) linguistic category.

The two kinds of complexities introduced in (1) by no means exhaust the typological space of complexity in language. A third possible candidate is the typological rarity or abnormality. There are also cases of non-structural complexities. I discuss each of these below in section 2.2. In
this paper, only the two kinds of structure complexities in (1) will be the focus of the discussion since I believe it is the distinction between syntagmatic and paradigmatic complexities that is particularly relevant to understanding the nature of creole “simplicity”. Two kinds of complexities, one syntagmatic and the other paradigmatic, that have featured prominently in the literature on creole simplicity will be discussed in detail in section 3. At this point, I will briefly discuss each of these two classes using different phenomena for the sake of clarity.

In the syntagmatic domain, we can understand a simple structure to be one wherein there is a straightforward one-form–one-meaning correspondence. Thus, a word like *cats*, which can be unproblematically morphologically segmented into *cat* and *s* would be simpler syntagmatically than, say, *children*, where such simple segmentation is not possible because of the shift in the stem vowel from the singular form. Similarly, negation in a language like French, which is marked with the discontinuously in the *ne* verb *pas* construction would represent a syntagmatically more complex structure than one where negation is marked with a single element. Though these examples are drawn from morphosyntax, syntagmatic complexity, as understood here, should not be conflated with syntactic complexity, since it can encompass syntagmatically complex aspects of phonological structure as well (as will be made clear in section 4.3.2).

In the paradigmatic domain, the simplest possibility is where, across a given grammatical category, the relevant paradigm contains only one form, while paradigms with more forms can be considered more complicated. For example, if we look at number marking on nouns, we find a paradigmatic complexity in English wherein nouns can have two forms singular and plural, while Edo shows no such complexity, since it generally lacks plural marking on nouns (Dunn 1968:207). Of course, the case of the English singular/plural opposition is still not particularly complex, and one can find much more extreme cases, for example, as in the inflectional categories of Latin nouns where case, number, gender, and declension class all play a role in the overall system, resulting in more than seventy different form classes (Blake 2001:4) (though, for any given noun, the number of distinct inflectional forms will be closer to ten or so).
2.2 Other complexities

2.2.1 Typological abnormality

In addition to syntagmatic and paradigmatic complexity, there is a third kind of “complexity” discussed in the creole (and wider) literature I will refer to here as *typological abnormality,* following Haspelmath (2006:33–37).\(^3\) Clearly, an examination of the presence or absence of typological abnormality in creoles could be quite relevant to arriving at an understanding of their overall complexity. However, I avoid consideration of typological abnormality here for three reasons.

First, typological abnormalities crucially differ from syntagmatic and paradigmatic complexities in only being discoverable through cross-linguistic comparison. This difference is important in the present context because, as will be discussed in section 4, a crucial point of interest here will be arriving at a model through which complexities can be transferred from a source language into a creole. Any given syntagmatic or paradigmatic complexity is, in principle, a candidate for such transfer, whereas it is logically impossible for the typological generalization through which we can discover some pattern is abnormal to be transferred from one language into another, since such generalizations are never instantiated in a single grammar.

This is not to say that a particular typological abnormality could not be transferred into a creole. Clearly, they can be, as evidenced, for example, by the presence of labiovelar consonants in Sara-maccan (Rountree 1972:22), a kind of segment which otherwise has a quite restricted worldwide distribution (Maddieson 2005d). However, this does not represent transfer of an entire implicational or “markedness” hierarchy.\(^4\) Rather, it represents transfer of a single abnormality, which will be associated with its own complexities, to be sure, but, on its own, does not carry a hierarchy with it. This point leads to a second reason why typological abnormalities are not considered in detail here: The notion of typologically abnormal cross-cuts the notions of syntagmatic and paradigmatic complexity. That is, a given syntagmatic or paradigmatic complexity may also happen-

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\(^3\) One more typically finds the term *marked* used in association with this concept (see, e.g., McWhorter (2001a:135)). However, I avoid use of that term here following argumentation presented in Haspelmath (2006)).

\(^4\) See Miestamo (2009) for one approach to the use of implicational universals in the exploration of linguistic complexity.
pen be typologically abnormal. Thus, we must be careful about examining such syntagmatic and paradigmatic complexities side-by-side with typological abnormalities since they do not represent logically distinct categories from each other.

Finally, our present state of knowledge makes it quite difficult to know what kinds of typological abnormalities result from some general principle of grammar as opposed to resulting from historical contingencies (see also Kiparsky (2008) on this point). On the one hand, work like that of Harris (2008) shows that some grammatical patterns may be abnormal not because there is anything intrinsically “difficult” about them but, rather, because the probability that the requisite series of (not necessarily abnormal) historical events needed for them to come about is simply quite low. On the other hand, work like that of Nichols (1992) and Dryer (1989a, 1992) has made it “clear that hardly any typological variable…is evenly distributed in the world Bickel (2007:43).” This suggests that many apparent typological abnormalities may be accidents of history factors—for example, the result successful language spreads—making it dangerous to infer too much about “grammar” from present-day typological distributions. In other words, just because something is typologically abnormal with respect to our present knowledge of grammatical distributions, does not mean there is anything intrinsically “difficult” about it. Thus, knowing which abnormalities may be truly “complex”, in some sense, and which may actually be “simple” despite their rarity is a question linguistics is not yet in a position to answer generally.

None of this is to say that typological abnormality is irrelevant to understanding complexity (or the lack thereof) in creoles, as evidenced, for example, in work like that of Brousseau (2003), Kihm (2008), and Uffmann (2008) (see also McWhorter (2001a:160), as well as Mühlhäuser (1974:76–84) for early discussion in the context of the study of pidgins and creoles). Rather, doing so here, would present both conceptual and methodological difficulties. So, I largely set it aside as a possible “complexity”, instead focusing on the two structurally grounded notions of syntagmatic and paradigmatic complexity, though I will come back to the topic of typological abnormality briefly in section 4.3.1.
2.2.2 Substantive complexities

At least one other way to examine the notion of linguistic complexity is not to focus on complexities of structure but rather on the substance associated with a given structure. Here, by *substance*, I have two broad areas in mind, both of which are often conceptualized to be on the fringes of grammar proper: phonetics and semantics.

In the domain of phonetics, for example, a substantive complexity may arise when a class of sounds is physically difficult to produce for some reason, as is the case with voiced fricatives where the impediment to airflow produced by voicing makes it difficult to create the noise associated with frication in the oral cavity (see Ohala (1999)). In the domain of semantics, a substantive complexity would arise if the meaning of a particular form is, in some comparable sense, unnatural. Locating such substantive complexities in semantics is less straightforward than in phonetics since semantics lacks the same degree of observable physical grounding. However, a case like the Dagaare past tense marker *da* which codes for a combination of hodiernal and remote past, but not for the time frame in between (Schwenter 1998), would seem to be a good candidate for just such a complication, assuming (hopefully reasonably) that disjoint time reference is intrinsically more complex than continuous time reference.\(^5\)

Understanding the difficulties associated substantive complexity is clearly crucial for arriving at an understanding of overall linguistic complexity and simplicity. It will not be focused on here, however, in order to keep the discussion relatively coherent by focusing on only one domain of complexity (i.e., structural complexity) and because, unlike paradigmatic complexity, as we will see, I am not aware of any special status it may have with respect to the process of creolization. Nonetheless, the notion of a substantive complexity will have some role to play later on in the discussion in sections 4.3.3 and 4.5.

Before moving on, I should emphasize that the typology of complexities discussed here should only be considered an initial exploration of this domain, and I do not wish to suggest I have offered

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\(^5\)The idea that some morphemes may be “semantically vacuous” or “light” in the sense of Aboh and Ansaldo (2007:47) would also seem to be conceptualizable as a kind of substantive complexity.
a complete analysis of it here. Nevertheless, even this initial exploration will allow us to explore models of linguistic simplification under creolization to what I believe is a fairly interesting degree.

3 Two prominent complexities

3.1 Simplicity and sampling

A prominent feature of the style of argumentation employed in McWhorter (2001a) is exemplification of patterns of grammatical elaboration found in non-creoles of a kind that has yet to be encountered in any creole. Enumeration of such patterns can not definitively prove that creole grammars are simpler than non-creole grammars insofar as there is always a chance that, while creoles may be simpler in the domains sampled, they may be more complex in other, non-sampled areas of their grammar. (See, e.g., Arends (2001:181) for one articulation of such a view and Parkvall (2008) for a study supporting the idea that creoles are simple that looks at a more systematic sample of grammatical phenomena.) However, even if one rejects that such an approach can prove that creole grammars are “simplest”, it can still be used to support a different claim: That creoles form a distinctive typological class of languages (see McWhorter (1998)) defined not necessarily by overall simplicity but, rather, lack of certain kinds of complexities.

In the present context, this is important because it turns out that the present state of the evidence suggests that, while creole grammars are simplified with respect to some grammatical features, with respect to others they appear to be more or less “average”—and there are even a few cases where they show complexities not attested in non-creoles. This suggests that the key question may not be solely if creoles are simple but instead how they are simple and how they are not. In this section, I introduce two types of complexities: noun class systems (section 3.2) and segment inventories (section 3.3). The former appears to be a domain where creole grammars are universally simple, and the latter where they appear to be closer to average. In section 3.4, I discuss some typological rarities attested in suprasegmental phonology which add complexity to creole grammars in ways unattested in non-creoles.

This section is merely intended to introduce exemplary data. Section 4 will attempt to provide
an explanation for the patterns described.

3.2 Noun class systems

Noun classes (or genders; see Corbett (1991) for a typological overview) are a good example of a kind of inflectional morphology that is not found in creoles. Of course, noun class systems, while not particularly uncommon, are not overwhelmingly present in non-creoles either. (For example, in Corbett’s (2005) survey only around forty-percent of the languages in the sample showed noun class systems.) Nevertheless, given that noun class systems are not rare cross-linguistically, it is surprising that, at least in the Atlantic, where one finds noun classes in the superstrates as well as a in a number substrates (as seen in Corbett (2005)), one does not find any creole with a substantial noun class system.

Consider for example, the noun class prefix system for Kikongo, given in table 1, adapted and simplified from Bentley (1887:544), which exemplifies the elaborate noun class systems for which Bantu languages are famous. (The numbering of noun classes in table 1 attempts to follow standard Bantuist conventions—see, e.g., Maho (1999:247) for general discussion and Carter and Makoondekwa (1987) for its application to Kikongo. The given singular/plural pairings are not exhaustive.) The sentences in (2) exemplify agreement patterns associated with this noun class system, both within the noun phrase (2a), which shows the agreement patterns for nouns in class 9/10, and between a subject and a verb (2b), which shows alternative subject agreement (class 1 versus class 9) in an active sentence and its passive variant.

(2) a. nti ambote / nti miambote

9.tree 9.good 10.tree 10.good

“good tree”/“good trees” (Bentley 1887:556)

b. O nleke wabaka e nkombo. / E nkombo yabakwa.


“The boy caught the goat.”/“The goat was caught.” (Bentley 1887:620)
By contrast, consider Saramaccan, a prominent substrate of which was, in fact Kikongo (see, e.g., Daeleman (1972) for evidence). There is no noun class system in Saramaccan in the standard sense—that is, there are no cases where one finds agreement classes controlled by nouns which trigger alternations in elements (e.g., adjectives, verbs) that a noun may have a syntactic or semantic relationship with (Corbett 1991:1). The only phenomenon one finds remotely resembling a noun class system are a large number of nouns appearing with an initial a- (see, for example, Rountree et al. (2000)), reminiscent of what one finds in languages like Fongbe (see, for example, Lefebvre and Brousseau (2002:193–194))—another prominent Saramaccan substrate (see Smith (1987)). In a language like Fongbe, such elements are generally considered to represent relics of an elaborate noun class system which was present in Proto–Niger-Congo (Williamson and Blench 2000:30).

In Saramaccan, a-initial words have a variety of sources, some of which, at least, result from transfer of substrate words containing noun class prefixes with that shape—for example, the word ahún ‘grass’ from Gbe axó ‘grass type’. There is some evidence for the synchronic relevance of initial a- to Saramaccan grammar insofar as there are a handful of words with “prefixed” and bare variants, for example, (a)kulí ‘Hindustani’, (a)masíni ‘machine’, (a)tengútengú ‘limping’, and (a)dikpókpo ‘mushroom’ (Rountree et al. 2000). The first two of these words have non-African

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<th>SINGULAR</th>
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<tr>
<td>1 mu</td>
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<tr>
<td>3 mu-</td>
<td>4 mi-</td>
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<td>5 di-/e-</td>
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<td>7 ki-</td>
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<td>9 n-</td>
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<td>11 lu-</td>
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<td>14 u-</td>
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<td>15 ku-</td>
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<td>16 va-</td>
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<td>17 ku-</td>
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<td>18 mu-</td>
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<td>19 fi-</td>
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Table 1: Kikongo noun class prefixes

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6This etymology is drawn from Smith (1987), and the cited form is from Ewe.
etymologies, with (a)kulí deriving from the same element as English coolie (which is ultimately of Indian provenance according to the Oxford English Dictionary) and (a)masína deriving from the same element as English machine. This suggests that the presence of a- at the beginning of some nouns in Saramaccan was salient enough to be analogically extended to words where it was not present etymologically. However, even if we were to admit that there was some kind of synchronic morphological reality to this a- formative, perhaps as a kind of nominal inflection with limited productivity, it would fail to classify as a noun class marker since it is not associated with any agreement pattern distinct from that found for other nouns.

In fact, there are no clear-cut cases of agreement of any kind in Saramaccan, let alone noun class agreement. The strongest arguments for the presence of agreement in the language would almost certainly involve a singular/plural distinction found in its definite articles (which also serve as relative pronouns) and the choice of singular versus plural pronouns depending on the number of their referent (see Rountree (1992:50–52) for relevant description). But, even these do not unambiguously involve agreement insofar as there is no evidence that these elements are agreeing with nouns. Instead, they appear to serve as independent markers of number, since nouns themselves in Saramaccan are unspecified for number. (Thus, the Saramaccan plural definite article déé would appear to be classified as a plural word in the sense of Dryer (1989b) rather than an element showing plural agreement—see especially Dryer (1989b:873–874).) With respect to its pronouns, Saramaccan even lacks the only distinction reminiscent of noun classes in English, the choice of third-singular pronoun he, she, or it based (primarily) on semantic grounds. Saramaccan does have multiple third-person pronominal forms a, én, and hén, but the choice of forms is based on syntactic and pragmatic considerations, not noun class (Rountree 1992:50).

In section 4, noun classes will be used as an illustrative example of a paradigmatic complexity. As will be seen, a model of creole development involving a process here termed jargonization predicts that paradigmatic complexities will generally be unlikely to be transferred into creoles. Since inflectional morphology in general implies, more or less by definition, some degree of paradigmatic complexity, noun classes will be treated below as representative of inflectional morphology
as well.

### 3.3 Segment inventories

Unlike noun class systems—which appear to be unattested in creoles—creole segment inventories do not “stand out” as representing an extreme in terms of simplicity or complexity. As Klein (2006:18) points out, “[T]he segmental inventories of Creole languages are not simple, notwithstanding a very small number of exceptions. On the other hand, they do not tend to be very complex either. Instead, Creole inventories have a strong affinity to the typological middle.”

For example, consider the Saramaccan consonant inventory in table 2 and the Saramaccan vowel inventory in table 3. (Consonants of unclear phonemic status are indicated in parentheses. Saramaccan additionally has two degrees of contrastive length and contrastive nasalization in its vowel system.\(^7\))

\[
\begin{array}{cccccccc}
\text{p} & \text{t} & \text{tj} & \text{k} & \text{kp~kw} \\
\text{b (i)} & \text{d (d)} & \text{dj} & \text{g} & \text{gb~gw} \\
\text{mb} & \text{nd} & \text{ndj} & \text{ng} \\
\text{m} & \text{n} & \text{nj} \\
\text{f} & \text{s} & \text{h} \\
\text{v} & \text{z} \\
\text{l} & \text{j} & \text{w (hw)}
\end{array}
\]

**Table 2: Saramaccan consonant inventory**

\[
\begin{array}{cc}
\text{i} & \text{u} \\
\text{e} & \text{o} \\
\text{ɛ} & \text{ɔ} \\
\text{a}
\end{array}
\]

**Table 3: Saramaccan vowel inventory**

Following the classificatory system of Maddieson (2005a), the Saramaccan consonant inventory is on the borderline between average and moderately large, depending on how one counts the

\(^7\) See Voorhoeve (1959) and Rountree (1972) for standard analyses of the Saramaccan segmental system. Smith and Haabo (2007) further discuss the presence of apparent phonemic labial and alveolar implosives. A voiceless labiovelar approximant \textit{hw} is found in a handful of words in some sources (see, e.g., Rountree et al. (2000)), though its precise status is unclear and it is, at best, a marginal phoneme.
Table 4: Rotokas consonant inventory

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Table 5: Rotokas vowel inventory

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more marginal segments. (An average consonant inventory in that survey was taken to be one with nineteen to twenty-five consonants, and Saramaccan has from twenty-five to twenty-eight consonants.) Following the classificatory system of Maddieson (2005f), the Saramaccan vowel inventory just passes into the large category, which is defined as seven or more vowels, while average is five to six vowels.

As discussed in Klein (2006), this pattern is not unique to Saramaccan among creoles. In general, creole segment inventories cluster around the worldwide average in terms of numbers of consonants and vowels. Furthermore, in the Saramaccan case, one even finds consonant types (i.e., prenasalized stops, labiovelars, and, possibly, implosives) which are uncommon from a worldwide perspective—i.e., which are typologically abnormal.

We can contrast the Saramaccan consonant inventory with that of Rotokas, a Papuan language, as described by (Firchow and Firchow 1969:273). The Rotokas consonant inventory is given in table 4 and the vowel inventory in table 5. While the vowel inventory of Rotokas is average, and not that much smaller than Saramaccan’s, its consonant inventory is less than one fourth the size of Saramaccan’s, making it much simpler by any obvious metric.

Perhaps counterintuitively, segment inventories will be treated as an exemplary instance of a syntagmatic complexity in the discussion in section 4 and will, therefore, stand in for syntagmatic complexities more generally. The reason for this is that, while segment inventories uncontroversially form a structured system of paradigmatic oppositions in a given grammar, it will be suggested that their transfer into a contact language can be done via the transfer of a syntagmatic complexity only.
3.4 Maybe phonology is different?

One possible response to the relative lack of simplicity in creole segment inventories is to attribute it to some asymmetry between phonology and morphosyntax—that is, creole morphosyntax may be “simple” but, for whatever reason, creole phonology is immune to the simplification processes associated with creolization. Thus, McWhorter (2001b:391) writes, as already cited above, “While I still believe that older languages are more complex OVERALL than a crucial subset of creoles, if it is found that older languages can have less complex phonologies than creoles, then it will be interesting and fruitful to seek a principled reason why this should be so in this particular module of language but not others.” Klein (2006:5) has similarly posited the Creole typicality hypothesis with respect to phonology which suggests that creoles, “exhibit typical phonological systems that center on the typological middle ground.”

And, there is evidence going beyond segment inventories which is suggestive that creole phonology is not obviously simple. In Atlantic creoles for example, one finds various cases where the typological clash between accentual European languages and tonal African substrates produced typological abnormalities. Two well-studied cases are the distribution of tone in Saramaccan, which suggests that a tonal lexical stratum is embedded in an otherwise accentual system (Good 2004b, 2004a, 2006) and the patterning of tone and stress in Papiamentu, noteworthy for the fact that, among other things, tonal patterns and stress are both independently lexical contrastive (Kouwenberg 2004, Rivera-Castillo and Pickering 2004, Remijsen and van Heuven 2005). (For relevant comparative studies of creole prosody, see also Devonish (1989, 2002) and Rivera Castillo and Faracles (2006).)

However, it will be argued below that, while phonology may be “different” from morphosyntax with respect to simplicity, the case is not at all that clear from the evidence available at present. In particular, the fact that creole segment inventories are not particularly simple is not good evidence for this. Rather, segment inventories represent a different kind of complexity than, for example, noun classes and they, thus, do not serve as useful comparanda for examining whether or not creolization may differentially impact phonology as opposed to morphosyntax.
In the next section, I will discuss how a particular model of creolization predicts asymmetries in the distribution of complexities within creoles along the lines of what is seen when one compares noun class systems to segment inventories.

4 Creolization via jargonization

4.1 Introducing the model

If creoles are “simple”—or even just typologically identifiable—then this must be, in some way, due to the sociohistorical circumstances which resulted in their creation. Of particular interest here will be the idea that, at some point during a possibly prolonged process of creolization, transmission of grammars among the various populations whose descendants would ultimately speak a creole passed through some kind of “bottleneck”. This bottleneck would have, by assumption, produced a kind of transmission that is qualitatively distinct not only from “canonical” transmission of language between generations but also from the transmission involved in successful second language acquisition which, while not resulting in full grammatical transmission, does have an end stage wherein the transmitted grammar is straightforwardly viewed as a variant of the original language.

That there is some kind of distinctive bottleneck involved in creolization is not completely uncontroversial, of course. In particular, it is not obviously consonant with the views of what can be termed the “superstratist school” (McWhorter 2003:205), most prominently argued for in the work of Chaudenson (1992:53–177) and Mufwene (2001) (see also Ansaldo and Matthews (2007)). Nevertheless, understood broadly, it has been widely adopted in various forms, constituting an important part of the Language Bioprogram Hypothesis (Bickerton 1984), the Relexification Hypothesis (Lefebvre 1998), the more recent Interlanguage Hypothesis (Plag 2008), and, of course, work done in the context of the idea that creole grammars are unusually simple (McWhorter 2001a:125–126). It is perhaps best known via Thomason and Kaufman’s (1988:10) terminological distinction between normal and imperfect transmission.\(^8\)

\(^8\) Siegel (2007) provides clarifying discussion suggesting that the opposition between superstratists and non-
Each of these schools of thought conceives of the bottleneck differently, but they nevertheless adopt a view that some kind of unusual, reduced transmission was involved. I use the bottleneck metaphor here because it will prove particularly apt for later discussion wherein a central question will be what kinds of complexities would be expected to pass through a particular kind of imperfect transmission process and which would not—though in using it, I do not mean to suggest it is the only way to conceptualize the process. The idea that there could be such a bottleneck is agnostic in and of itself regarding the precise source of that bottleneck—whether, for example, it was due primarily to limited access, as in the Language Bioprogram Hypothesis model, or whether sociolinguistic constraints may also have been involved (see, for example, Baker (1990, 2001) and Smith (2006) regarding precisely what “target” populations participating in creolization intended, not necessarily consciously, to achieve with respect to the ambient superstrate).

Using familiar creolist terminology, one possible label for this bottleneck is *pidginization*, assuming we adopt an imperfective reading of the term focusing on the process through which a pidgin develops (as opposed to perfective reading focusing on a resulting stable pidgin) (Hymes 1971:70). However, I wish to avoid that label here since I am most interested in the earliest stages of pidginization before a normalized pidgin has developed, or even begun to develop. The reason for this is that I wish to focus on one particular conceptualization of the creole “bottleneck”—a fairly standard if not uncontroversial one—which sees it as emanating from highly restricted social interaction among the populations where transmission of a full grammar is simply not possible. While *pidginization* encompasses this stage of the development of a contact variety, it also goes past this to cover the process through which a particular contact variety becomes subject to community norms (regardless as to whether or not it becomes a full-fledged language) (see, among others, Bakker (2003:4–5) for a brief overview of properties typically attributed to pidgins, including the idea that they are normalized—more detailed discussion can be found in Thomason and Kaufman (1988:167–174)).

Accordingly, when focusing on the early stages of pidginization, before norms become firmly superstratists with respect to what is referred to here as the creole bottleneck may not be quite as stark as might at first appear.
established, I adopt the term *jargonization* here. In using this term, I build on the sense of *jargon* wherein it is used to refer to a stage in the development of a contact variety preceding the development of a pidgin, “in which people experiment with forms and structure, before any norms establish” (Bakker 2003:4). My primary aim in exploring the process of jargonization will be to model the *structure* of the contact varieties it is susceptible to producing and to, thereby, see if such a process can, on the one hand, predict the loss of something like a noun class system while, on the other hand, not predict comparable simplification of something like a segment inventory.

For the most part here, I will put aside here questions regarding the specific histories of extant creoles, and I am not concerned with whether or not we can “prove” that a given creole definitely passed through a clear-cut jargon stage. This is not because such questions are not important. Clearly they are. Rather, it is because my focus here is on devising generally predictive models of creolization, not accounting for grammatical patterns of any one particular creole. As such, the argumentation here is comparable to that of Plag (2008:115) who, in adopting the hypothesis that creoles are conventionalized interlanguages (where interlanguages are modeled using an independently established formalism) is quite clear on the point that he does not expect this hypothesis to account for all the patterns found in creoles. Rather, it is a tool through which we can come to a better understanding of creole properties in general.

To make the discussion clearer, figure 1 schematizes a three-stage model for creolization, involving a jargon stage, a pidgin stage, and a creole stage. The model is heuristic in nature, deliberately abstracting away from many known complexities, and is meant to establish useful points of reference rather than be treated as a full-fledged theory. A discrete pidgin stage is included for completeness, though nothing crucial in the following argumentation hinges on whether or not a jargon passes through an identifiable pidgin stage or shifts directly into becoming a creole (see, for example, Dahl (2004:110–111) for discussion of this point in the context of simplification). The key distinction is between normalized varieties like pidgins and creoles against the non-normalized jargon. In presenting the model in figure 1, I do not mean to suggest that it is particularly innovative as it is quite clearly a variant of the classic life-cycle model of pidgins and creoles (see Bakker
I also do not mean to suggest that this is the only pathway through which a language with creole-like properties can develop, as it is clear that there are alternate routes to such a state (see, for example, McWhorter (2007) as well as section 5.2).

A key claim expressed in figure 1 is that grammatical simplification—at least of the extreme kind argued for in McWhorter (2001a)—is not a product of pidginization or creolization in their narrowest possible senses but, rather, of the jargonization phase of the process—that is, simplification takes place before the contact variety has been normalized. The logic behind this will be made clearer immediately below in section 4.2.

### 4.2 What is a jargon?

In order to understand the kinds of simplification that may occur during jargonization, it is important to develop a relatively concrete definition of a jargon in structural–grammatical terms. Ideally, such a definition could be set in clear opposition to comparable definitions of a pidgin and “full-fledged” language (the latter encompassing, of course, creoles), though, given the obvious difficulties in defining these terms, that will not be possible here. However, we can say that the process of normalization gives both pidgins and creoles a relatively high degree of structure—in the sense that their grammars would be characterized in part by the presence of paradigmatic
oppositions among their constituent units.

This is not true of jargons, where the crucial properties of a given linguistic element revolve around whether or not it is useful in a given context. The characterization of “pidgin genesis” (here: jargonization) in Thomason (1993:286), for example, is helpful in this regard: “all the participants are making guesses, and ‘right’ guesses are those that are understood by everyone.” This characterization suggests an initial definition of a jargon as simply “whatever is understood”, though it will be necessary here to not simply give a definition of a jargon in terms of its social use, but, rather, its grammatical content and structure—to the extent that it has any.

In order to do this, the notion of lingueme, as developed by Croft (2000:200–205) will be employed, which can be defined as, “a unit of linguistic structure, as embodied in particular utterances, that can be inherited in replication (Croft 2000:239)” (see also Croft (2003) for a discussion of this notion specific to language contact phenomena). In Croft’s characterization, linguemes can either be substantive—i.e., constituted of a form-meaning pairing, as in, for example, a word—or schematic—i.e., constituted of only form or meaning, as in, for example, a phonological category like labiovelar stop or an abstract syntactic construction like ditransitive. Croft’s sense of replication is quite broad, encompassing intergenerational transmission of linguistic units under so-called “normal” language transmission and borrowing, among other possibilities. Here, I will be primarily concerned with the kind of replication generally referred to as transfer in the creole literature.

Using the notion of the lingueme, we can give a relatively straightforward definition of a jargon as an enumeration of the substance linguemes that are understood in a given jargon’s sociolinguistic setting. In informal terms, we can think of a jargon as being akin to a traveler’s phrasebook: It comprises descriptions of utterances that do something rather than a system for generating and interpreting an open-ended set of utterances expressing an open set of conceptualizable meanings as found in a grammar (whether understood in its descriptive or mentalistic sense). To be clear, as

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9 The similarities between Croft’s (2000) notion of the lingueme and Mufwene’s (2001) notion of feature in the context of the feature pool are immediately apparent. Mufwene’s notion of feature (2001:1–2) would appear to be significantly broader than notion of lingueme, however. Since the latter, I believe, is sufficient to characterize the structure of a jargon, I adopt it here in the interests of precision.
discussed in section 4, I use a term like jargon, not to claim that there is now—or ever has been—a contact variety which perfectly fits the definition just given. Rather, it is intended to be an idealized reference point (useful for linguistic analysis), clearly distinguishable from idealized pidgins and creoles.

Two distinctive properties of jargons, in particular, here will be of interest: The fact that they are not normalized and the fact that they are not grammatically structured but merely consist of an enumeration of linguemes. The idea that they are not normalized has already been discussed insofar as what makes a communicative act “correct” in a jargon is simply that it is understood. Notions like grammaticality and ungrammaticality are irrelevant. What is relevant instead are interpretability and uninterpretability.

What is meant by “structured”, however, has not been explicitly discussed, and the intended sense of the term here should, therefore, be clarified. I am not concerned with structure in the sense of abstract mental structures nor formal structures used to represent mental structures. Rather, I am focusing on structure in the sense of a system of oppositions holding among the various elements of a communicative system, for example, oppositions among segments forming a phoneme inventory, oppositions of meaning in a given semantic field (e.g., tense), or oppositions between two syntactic constructions (e.g., active/passive). That is, by structure I mean something comparable to the sense of the term found in Saussure (1995[1916]:166–169), rather than the typical generative conception of the term.

Of course, it is easy to imagine a contact variety which seems closer to an idealized jargon than a pidgin or creole but, which nevertheless contains some structural oppositions. For example, perhaps, a consistent (and even normalized) strategy for negating a proposition could develop in a jargon-like variety, creating a structural opposition between positive and negative statements, where, otherwise, structural oppositions would be difficult to find. This is why a term like jargon here must be understood as a linguist’s idealization, intended to aid conceptual discussion, rather than as a bounded category into which we can consistently place a specific subset of contact
varieties.\textsuperscript{10,11}

We should also keep distinct the idea that a jargon itself, as a social object, may not have structure, from whether or not speakers of a jargon intend to produce a structured object or whether hearers of it structurally analyze the linguemes they encounter. It seems hard to imagine that they would not do this to at least some extent. However, the individual production and perception of grammatical structure in a jargon is a distinct concern from the extent to which the speaker community of any contact variety shares a common conception of its structure. By definition, in a jargon, the speaker community has no such common structural model of the variety.

Having defined the term jargon, as understood here, in the next section some predictions of the model depicted in figure 1 with respect to simplification will be explored.

4.3 Predictions of the model

4.3.1 Basic illustrations

At this point, I start with the assumption—again, not necessarily uncontroversial—that creolization involves a bottleneck of some kind and, in addition, adopt the model of that bottleneck depicted in figure 1. Putting aside the question of whether or not the model is “correct”, we can nevertheless explore the kinds of predictions it makes regarding what kinds of complexities may be readily transferred during creolization. Of course, by exploring this question we will also arise at predictions regarding the converse problem of determining what kinds of simplicities we should expect to result from creolization.

In section 2, various kinds of complexities were discussed, and I will focus on three of them here, the two “true” complexities—labeled syntagmatic and paradigmatic—and a third phenomena

\textsuperscript{10}I use the term \textit{idealization} rather than \textit{prototype}, in the sense of McWhorter’s (1998) creole prototype, in order to avoid any implication that the definition of \textit{jargon} is intended to refer to any attested entity. Arguing from an idealization, of course, weakens the empirical foundations of any of the claims to be made below. At the same time, however, it allows one to deduct a set of logical consequences deriving from an assumed model more straightforwardly.

\textsuperscript{11}Of course, any jargon will have the minimal structure wherein its lexical items will be semantically opposed to each other insofar as they come to be used to refer to different things. So, the idealized sense of jargon used here probably refers to a speech variety that would never be found in reality. Nevertheless, it is a useful fiction for the purposes of exposition, and its failings do not impinge on the main point to be made here: That it is more difficult for a paradigmatic complexity to be transferred into a jargon than a syntagmatic one.
commonly discussed under the heading of complexity, typological abnormality, whose status as a true complexity is less clear. In (3), I outline scenarios through which each of these kinds of complexities would be transferable into a developing jargon.

(3) a. **Syntagmatic complexity**: An input lingueme’s complex syntagmatic properties are introduced into the jargon and correctly interpreted by the jargon community.

b. **Typological abnormality**: An input lingueme’s rare typological properties are introduced into the jargon and correctly interpreted by the jargon community.

c. **Paradigmatic complexity**: A set of linguemes evincing a paradigm’s (in a broad sense) structure is introduced into the jargon and the members of the set are correctly interpreted in ways which are sufficient allow them to be analyzed as paradigmatically opposed during pidginization or creolization.

The scenarios in (3) immediately reveal an asymmetry holding between paradigmatic complexities, on the one hand, and syntagmatic complexities and typological abnormalities, on the other. The former can only be transferred if the right set of linguemes is transferred, while the latter only require one lingueme.

Consider, for example, a relatively simple inflectional distinction from English: singular/plural marking on nouns. This distinction is simple for at least three reasons: (i) its morphological expone
nence is generally quite regular, consisting of the suffix -s and relatively limited, phonologically-predictable allomorphy, (ii) the size of the paradigm is as small as logically possibly, containing only two opposing categories, and (iii) it is an instance of what has been termed *inherent* inflectional morphology (see Booij (1996)) meaning the conditions under which it appears are not connected to any one syntactict environment but, rather, the semantics one wishes to express. (This kind of inflection will be opposed to the more complex case of contextual inflection below in section 4.3.3.)

How could such inflectional morphology be transferred into a jargon? We can heuristically model the process as in (4). Two linguemes, each representing a different member of the paradigm,
enter the jargon successfully—i.e., they are used by a given set of speakers and understood by the
speakers in the right way. Such successful introduction requires successful transfer both of two
forms (in the case of (3), *cat* and *cats*) and the appropriate semantics of the forms (in this case,*cat* as singular and *cats* as plural). (For the sake of illustration, one should further assume that the
other basic semantic properties of these words are properly transferred as well.) The “⊿” symbol is
being used here to indicate cases where, for successful transfer, different characteristics of a given
lingueme must be symbolically paired together into a single sign or construction.

(4) a. **Lingueme pool:** *cat* and *cats*

b. **Distinction:** *cat* △ SINGULAR, *cats* △ PLURAL

One should clearly distinguish here between the successful transfer of two linguemes, as de-
picted in (4) and the transfer of the an inflectional distinction instantiated by those linguemes. In an
idealized jargon, there is no inflection per se, since that assumes the presence of grammatical struc-
ture. What is represented in (4), therefore, is a minimal set of prerequisites for the transfer of this
inflectional distinction, not a guarantee of transfer of the distinction itself. Additionally required
is abstract morphological analysis of the transferred linguemes either within the jargon community
(as a whole) itself—in which case that particular jargon would deviate from the ideal—or by an
emerging pidgin or creole community which might detect morphological patterns that had been
transfered into a jargon and generalize them into true grammatical oppositions.

Obviously, we can imagine real-world scenarios in which the heuristic scenario in (4) would be
more or less likely to result in actual transfer of inflectional morphology (whether it is transfered
directly into the jargon, or indirectly, via specific linguemes which are reanalyzed at a later pidgin
or creole of the contact variety). For example, if many instances of singular and plural nouns enter
the jargon, some of which are based on the same root, the inflectional pattern instantiated in those
linguemes would be more salient than if only one relevant pair were present, facilitating its transfer.
Furthermore, looking at the particular phonological form of the plural in the English case, if the
native languages of all of the speakers of the jargon community independently allowed complex
codas, more instances of word-final s would be likely to be transferred into the jargon than if this was not the case, again facilitating transfer of the inflectional distinction.

Nevertheless, for the sake of argument, I will focus here on the minimal requirements for the transfer of a paradigmatic complexity into a jargon. In the case, of the English plural, they are that two substance linguemes be transferred into the jargon with the “right” forms and meanings. While this does not seem a particularly difficult task, it would be useful first to compare it to the transfer of a syntagmatic complexity or a typological abnormality. In section 4.3.3, instances of more complex paradigmatic complexities will be discussed.

In the syntagmatic realm, a useful example of transfer of a syntagmatic complexity involves the process through which a particular phonological form of a word might enter a jargon. Thus, for example, the phonological form of cat, /kæt/, if used by a speaker in a jargon community, will have some phonetic expression in a given use, say, [kʰæt], and its syntagmatic structure must be parsed by the hearer if it is to successfully enter the jargon. Of course, this latter process can be quite complex, in particular when groups with different native phonologies are involved, just as the process of transferring inflectional morphology is more complex than simply transferring two forms as depicted in (4).

However, what is noteworthy is that the minimal barrier for successful transfer of the syntagmatic aspects of the phonological structure of cat is lower than the minimal barrier for transferring singular/plural inflectional distinction in two ways. Not only does the transfer depicted in (4) require the transfer of two linguemes, instead of one, it requires the transfer of two form–meaning pairings. By contrast, for the phonology of cat to be transferred, only the formal side of the lingueme must be successfully transferred. Of course, some meaning must be transferred as well (or the form is unlikely to have much uptake in the community), but the semantic transfer need not be “perfect”. For example, if cat enters the jargon as a word unspecified for number, this would be problematic for it to serve as a candidate lingueme as evincing the paradigmatic distinction of singular versus plural of the sort depicted in (4). However, such a semantic “shift” would have no impact on the extent to which the syntagmatic complexities of the form of cat might enter the
jargon.

Therefore, in some sense, for the transfer depicted in (4) to be successful, four things must work out: two forms must be transferred successfully enough for the formal expression of singular versus plural to be maintained and two sufficiently specified semantic representations must be transferred with those forms. For /kæt/ to be transferred, only one transfer needs to be successful. This is a greatly simplified depiction of the realities of transfer, but it is sufficient to illustrate the asymmetries involved in transferring syntagmatic versus paradigmatic complexities.

With regard to typological abnormalities, we must first recognize that these come in various forms and could, in principle, represent syntagmatic complexities, paradigmatic complexities, or something else entirely. What is important, here, then is not devising a general model for how they would be transferred into a jargon—since it will depend on the details of each abnormality—but, rather, understanding what impact their defining characteristic, that is being “abnormal”, would have on their ability to be transferred.

The answer to this question seems fairly straightforward: Typologically abnormal features are, by definition, rarer than typologically normal features and, therefore, less likely to be found in any given language. Accordingly, in a given contact situation among a number of languages, a typological abnormality in one of the languages in contact is less likely to be found in the other languages than a normal typological feature, inhibiting its ability to be transferred since it will represent an unfamiliar kind of grammatical pattern to many members of the jargon community. (See Mühlhäusler (1974:77) for earlier articulation of the same basic view.)

To take one prominent example of a typological abnormality, click consonants, outside of a relatively compact area of southern Africa, the odds of finding two languages with clicks in their phonemic inventories are quite low (see Maddieson (2005d)). Therefore, the odds of finding clicks segments among any set of languages in contact is fairly low in the first place. This alone accounts largely for the fact that clicks are uncommon in contact languages—though, they are not altogether absent, of course, as they are found in Fanakalo (see Cole (1964:549)). Furthermore, even if clicks might be found in one of the languages in contact, the fact that they would be unlikely to be found
in the other languages in contacts makes their transfer less likely than the transfer of a feature shared by more than one of the languages in contact. Thus, for example, Cole (1964:549) states that in Fanakalo, clicks are often replaced by $k$ due to the influence of native speakers of European languages without clicks on the variety.

Finally, before moving onto more detailed cases of paradigmatic complexities—and the inherent difficulties in transferring them into a jargon—by discussing how complexities can be transferred into a jargon, I do not mean to imply that this is the only way for a complexity to emerge in a contact variety. Obviously, once a contact variety becomes normalized as a pidgin or creole, the usual sorts of historical forces can cause it to add complexities not present in any of the languages spoken by members of the jargon community. Thus, for example, Good (2003) argues that inflectional tonal morphology entered Saramaccan as the result of reanalysis of a phonological tonal plateauing rule in the language. (This case of reanalysis probably took place well after jargonization given that the necessary phonological prerequisites—i.e., the appearance of clear lexical tone contrasts—seem to have entered the language at a relatively late stage as discussed in Good (2009).)

It is even fairly easy to imagine cases of purely lexical transfer into a jargon resulting in its containing patterns salient enough to produce new paradigmatic complexities. For example, as discussed in section 3.2, transfer of words beginning with $a$- in Saramaccan seems to have allowed this element to be extended as a prefix to words where it is clearly not etymological. While it is not known what the trigger may have been for this particular extension, words beginning with $a$- in Saramaccan are not limited to cases where it represented a noun class prefix in the original language (for example, the word agúja ‘needle’ derives from Portuguese agulha; see Smith and Cardoso (2004:124)). Thus, its extension to new words seems likely to result from a mix of importation of substrate morphology and reanalysis of accidental initial $a$ in other words as instantiating the same pattern. The significance of this for present purposes is that it seems quite possible that a jargon may contain seeds of a later morphological reanalysis which would bring paradigmatic complexity into a contact variety of a kind not attested in any of the source languages.
Nevertheless, I do not focus on this possibility here because of the inherently sporadic nature of such reanalyses and because the core area of interest is how complexities in source languages do or do not get lost during jargonization, not how accidents of a particular case of jargonization may prompt the emergence of new kinds of complexities, though this latter topic would clearly be ultimately quite relevant to developing a complete model of simplification and complexification in contact varieties.

4.3.2 From segment enumeration to phoneme inventory

As typically presented in modern descriptive grammars, segment inventories are treated as a paradigmatic complexity par excellence. They are not merely lists of what phones the linguist happens to have encountered in a given language but, rather, are supposed to represent the system of segmental phonemic oppositions in its totality. On their own, of course, segment inventories do not describe the full possible range of available paradigmatic oppositions among segments in a given language because independent phonotactic constraints will also bear on this. Nevertheless, the fact that such inventories are generally understood to represent a kind of paradigmatic complexity may make it surprising that in section 3.3 they would treated as an example of a syntagmatic complexity here.

This classification goes back to the distinction made in the model in section 4.2 wherein a crucial feature separating a jargon from a pidgin or creole is that it consists of an unstructured enumeration of linguemes and does not include a normalized, structured grammar. In a jargon, therefore, while one can speak of a segment inventory, this would only refer to an enumeration of the phones that happen to be present in the elements used in the jargon, rather than a set of phonemes in structured opposition. Of course, the various members of the jargon community may impose their own phonemic analyses on the items in the jargon, but the jargon itself—as a socially embodied communicative system—does not have phonemes per se. Rather it only contains the phones as instantiated in its substance linguemes.

As such, the crucial factor as to whether or not a segment enters a jargon is not how it patterns within an abstract system of oppositions. Rather, it is the way a given segment, once introduced
into the jargon via a particular lingueme, becomes adopted into the jargon community. The nature of this process is clearly complex. Given that a jargon, by definition, is not normalized, one would expect that some variability in the phonetics of a given lingueme would be typical at the jargon stage, while, en route to the development of a pidgin or creole, some of that variation would be suppressed as a new phonemic system develops.

Fortunately, for present purposes, we do not need to explore exactly how the phonetics of linguemes from various source languages will be adapted as they enter the jargon and beyond (though see Plag (2009) for relevant issues). The main concern is not to model the route from the phonetics of a source language to the phonology of a contact variety but, rather, to model how segmental complexities in a source language could be transferred into a jargon, and this is somewhat easier to understand: Simply put, for a segment with particular phonetics to be transferred from a source language into a jargon, all that is required is for that segment to be successfully transferred in a lingueme of the jargon. If a click, an ejective, or a labiovelar can survive in a single lingueme in the jargon, then it is a candidate to become part of the segment inventory of a normalized variety based on that jargon. As discussed just above in section 4.3.1, this does not even require successful transfer of the lingueme’s semantics into the jargon. Nor does it require successful transfer of an entire form from a source language as long as that one segment is transferred.

What does this mean, then, for the overall segment inventories of a pidgins and creoles? Here, I can only give a negative answer, not a positive one: There is no reason to expect them to be particularly simple. The jargon “bottleneck” may keep out a particularly low-frequency phoneme from a source language (e.g., the voiced alveopalatal fricative in English) since such a phoneme may, by chance accident, not make its way into a lingueme in the jargon. But, there is no a priori reason to expect, as a general outcome, for jargon segment inventories to be particularly “stripped down”. This is not to say that we might not expect some segments, in particular typologically abnormally ones, to be lost. Rather, there is no reason to suggest overall simplification.

One useful way to think about this problem is to consider what would happen if, say, two completely unrelated languages in contact both by chance shared the same word for ‘dog’ with a
form like #aa. A generalized simplification scenario would predict that a variety resulting from contact between these two groups would produce a word like kaa for ‘dog’, where the click had been altered to become a less “marked” segment. But, this is clearly a strange prediction: Why would the segmental form of a word which showed a complete formal correspondence across two languages become simplified under contact? While the bottleneck of jargonization makes it inherently difficult for paradigmatic complexities to make it through to a pidgin or creole, there is no such inherent difficulty for a syntagmatic complexity. Rather the difficulties lie in the extent to which the participants in the jargon’s creation properly analyze the syntagmatic complexities of a transferred lingueme, a problem that brings us more into the domain of second-language acquisition strategies than understanding the structure of a jargon.

Accordingly, in general, what one would presumably expect is that syntagmatic structures emerging from a jargon would not be extremely simplified but, rather, represent a “compromise” (see Thomason and Kaufman (1988:153–154)) among the various source grammars. If a given syntagmatic structure from a source language was unusually complex by virtue of its form, substance, or the relationship between form and substance, it would be less likely to be transferred into the emerging jargon, since the odds that the entire jargon community would be able recognize or produce the complexity would be reduced, whether due to the nature of the grammatical structures of the other source languages or universal preferences in language processing and production, or some combination of the the two. For comparable reasons, a typological abnormality is less like to be transfered into a jargon. But this would lead us to expect something more along the lines of an “averaging” out of the structures of the source languages rather than extreme simplification.

Given this, Klein’s (2006) results for creole segment inventories should not be too surprising. If the segment inventories of contact languages are determined by the segment enumerations that are formed during jargonization, then one would expect that any segments shared among the source languages would enter the jargon as well as segments not shared among the source languages but which, for one reason or other, are salient enough (for linguistic or sociological reasons) to speakers of the other languages that they successfully transfer into the jargon without being lost
entirely or merged with another segment. Such a compromise process would not be expected to necessarily produce small segment inventories (unless all the source languages had small segment inventories) or large inventories—rather, one should get something in between, as Klein (2006) finds.

In this context, the case of typologically abnormal consonants in Chinook Jargon is worth mentioning. Chinook Jargon’s consonant inventory includes ejectives, lateral obstruents, and a distinction between a velar and uvular series of obstruents (Thomason and Kaufman 1988:259–260). As Thomason and Kaufman point out, these consonants, “though exotic from an Indo-European viewpoint, are... quite ordinary when considered in the context of Northwest Amerindian languages.” (See Maddieson (2005b, 2005c, 2005e) for worldwide overviews of the distribution of such consonants illustrating that they are common to the northwestern parts of the United States and adjacent regions of Canada.) In this case, the segment inventory resulting from contact was not average from a worldwide perspective, but was not so deviant from a local perspective, consistent with the idea that, since segment transfer in a contact variety happens as the result of transfer of a syntagmatic complexity, extreme reduction should not be necessarily expected.

4.3.3 The difficulty of transferring noun classes

As discussed in section 4.3.1, transferring even a simple two-way inherent inflectional distinction into a jargon requires some luck, insofar as it requires successfully transferring the forms and meanings of at least two linguemes. As we move to more complicated inflectional patterns, the prerequisites for the transfer, of course, can quickly become quite daunting. This is especially the case when we move from inherent inflectional to contextual inflectional morphology—that is, inflectional morphology dependent on morphosyntactic context (see Booij (1996) for discussion of the distinction). Consider for example noun class agreement of the sort found in Swahili as seen in (5). (As a Bantu language, Swahili has a noun class system comparable to that seen for Kikongo in table 1.)
(5) a. **M-toto m-dogo a-me-fika.**

1-child 1-little 1-TNS-arrive.FV

“The little child arrived.”

b. **Ki-kapu ki-dogo ki-me-fika.**

7-basket 7-little 7-TNS-arrive.FV

“The little basket arrived.” (Katamba 2003:111)

Two kinds of agreement are exemplified in (5), agreement between a noun and adjective and agreement between a subject noun phrase and a verb. In addition, the noun itself shows overt indication of its noun class in the form a prefix, which in (5b) has the same form as both agreement prefixes and has the same form as the adjective agreement prefix in (5a).

The difficulties involved in transferring an entire Bantu-type noun class system into a jargon should be clear. In a system with more than a dozen distinct noun classes, instantiation of the full paradigm requires transfer of at least as many linguemes as needed to show the full pattern. Some of the noun classes would likely be lost simply due to chance even in cases of extensive transfer of linguemes showing the noun class patterns. Setting that “numerical” issue aside, however, transferring any kind of contextual inflectional morphology is almost certainly more difficult than transferring inherent inflectional morphology. There are two reasons for this. First, by its nature, it is an instance of a syntagmatic complexity—for example, involving head-dependent relationships—which, depending on the speech communities involved in jargon formation, may be difficult for them to produce or perceive, thus presenting a substantive complexity (in the form of a syntagmatic complexity) compounding the paradigmatic one.

More relevant at present, however, is the fact that contextual inflectional morphology carries with it a fair amount of paradigmatic “baggage”. In a distinction between, say, singular and plural nouns, the relevant paradigm involves oppositions simply between words. However, contextual allomorphy involves paradigmatic oppositions both between words and between constructions—i.e., schematic linguemes. Consider, for example, the linguemes that must be transferred into a jargon for the full set of agreement relations illustrated in (5b) to be transferred, as schematized
in (6). The “⊕” is used to indicate a relationship of linear concatenation. (See the discussion surrounding (4) for description of the use of the “⊿ ◁” symbol here.)

(6)  a.  kikapu ⊊ ‘basket’ ⊊ class 7
    b.  kidogo ⊊ ‘little’ ⊊ class 7
    c.  kimefika ⊊ ‘arrived’ ⊊ class 7
    d.  [[ SUBJECT ] ⊕ [ VERB ]] ⊊ declarative statement ⊊ dependent-head agreement
    e.  [[ NOUN ] ⊕ [ ADJECTIVE ]] ⊊ modification of referent ⊊ head-dependent agreement

In the case of a sentence like (5b) for it to be transferred in ways which allow the paradigmatic agreement complexities it contains to enter into a jargon, first each of its individual words must be transferred with more or less appropriate form and semantics. In addition, for agreement to be transferred, the noun class information for each lingueme must also be transferred in some form. This particular aspect of the transfer is not qualitatively all that different from the example of transfer of inherent morphology discussed in reference to (4) in section 4.3.1. Where the transfer becomes more difficult for these sorts of agreement relations to enter the jargon is in the two additional linguemes that must be transferred, a “subject-verb” lingueme and a “noun-adjective” lingueme.

Transfer of such schematic linguemes into a jargon cannot be assumed to be achieved simply via transfer of individual sentences like those in (5). First, categories like “subjects” or “nouns” themselves only make sense in the context of larger paradigms, for example subjects must be opposed to objects and nouns to verbs. So, that requires a certain additional set of linguemes to be transferred. Furthermore, the overall structure seen in, for example, (6d) can only be fully understood if opposable to other, comparable, schematic linguemes which would illustrate, among other things that there is an agreement relationship holding specifically among subjects and verbs and not just any argument and the verb. Recall that, by definition, a jargon is unstructured. So, I am not saying that the oppositions themselves must be transferred into the jargon—rather, what is
needed is a set of linguemes containing sufficient information to illustrate the relevant oppositions so that, during normalization, those oppositions can be “reconstructed” in the emerging pidgin or creole community.

In looking at examples like those in (5) it may seem that one only needs two linguemes to be transferred for contextual inflection to be reconstructible. After all, the basic agreement patterns are found in those two examples. However, this would only work in a contact situation where speakers of the different source languages would all arrive at more or less the “right” syntagmatic analysis of those linguemes given only limited data. If the languages in contact were Swahili and Kikongo, this would not be an unreasonable conjecture. But what about English and Swahili, where agreement of any kind is only marginal to an English speaker’s native grammar? Even a speaker of French or German may not readily recognize the Swahili pattern given the different way Bantu noun class systems are structured as compared to Indo-European gender systems. And the Swahili speaker, as well, would presumably have difficulty unraveling the “covert” gender system of European languages, despite being accustomed to many more noun classes than what is found in European languages.

But, there’s more at issue here than simply difficulty of detecting agreement patterns. Grammatical relations like subject and object vary substantially enough across languages that their validity as universal categories has been questioned (Dryer 1997). Whether such a view is adopted as theoretical principle or as a descriptive fact, this variability means that transfer of a category like “subject” into a jargon is far from trivial. Rather, one would expect more general notions like topic or actor to be transferred instead with many of the peculiarities of subject and objects in the source languages being lost or “compromised” in the sense that they would be renegotiated within the jargon community to have distinctive properties from what is found in the source languages.

Returning to the sentences in (5), background knowledge of Bantu languages makes it quite easy for the linguist to see the prefix alternations between (5a) and (5b) as instances of the subject agreement, but the sentences, taken purely in isolation, are open to various other reasonable interpretations. For example, the subject of (5a) is animate and (5b) is inanimate. So, perhaps we
are not dealing with noun class agreement at all but rather some sort of stative-active distinction, in which case an *m*-prefix might be a kind of case marking on actors and a *ki*-prefix case marking on undergoers, with neither being inherent to the lexical nouns at all. Or, perhaps, the *ki*- of *kimefika* is a transitivizer replacing a stem-initial *a*-intransitive marker, and the sentence would be translated as, “Someone made the basket arrive.” Just because we happen to know these are not the best analyses of the Swahili pattern does not mean that the “right” analyses would be clearly instantiated in an emerging jargon.

In short, transferring of contextual inflection into a jargon requires transfer of linguemes evincing an entire grammatical subsystem that governs that inflection—i.e., a complex set of paradigmatic oppositions. In the context of agreement, for example, using Corbett’s (2006) terminology, it requires transfer of linguemes establishing what controls agreement (e.g., a noun), what the target of agreement is (e.g., an adjective or a verb), what the domain is of agreement (e.g., a noun phrase or sentence), and what features are involved in agreement (e.g., gender or number). The bottleneck of jargonization simply makes it unlikely for all the right “pieces” to be transferred so that the whole system could reemerge during pidginization or creolization. Some stray bits of such a system may make it through the bottleneck—but the whole system requires a transmission process much richer than jargonization would allow.

Therefore, a model like the one in (1) would seem to predict the lack, for example, of noun class systems or case systems in creoles, while at the same time being consistent with their having “average” segment inventories. Overall, McWhorter (2001a) may still express an important intuition but chose an inappropriate example by not attending carefully to the precise conditions of the model he assumed.

4.4 Concatenation and syntagmatic simplicity

Recent work by Gil (2008) (see also Gil (2007), Gil (2001)) has looked at the simplicity of the syntagmatic relation par excellence, concatenation. What is intriguing about his results is it reveals a gradience to the meaning of concatenation between two words across languages from less specified
semantically to more specified—or, to use Gil’s (2008) terms, from *compositionally associational* to most *compositionally articulated*.

Example (7) gives data from a highly compositional associational language, Riau Indonesian (Gil 2008:114–115). What is striking about Riau Indonesian, from the perspective of speakers of a language like English, is the flexibility of interpretation permitted when two words are concatenated. In this particular case, concatenating ‘chicken’ with ‘eat’ essentially allows for any plausible interpretation involving both of these two concepts.

(7) a. *ayam makan*
   
   chicken eat
   
   b. “The chicken is eating.”
   
   c. “Someone is eating the chicken.”
   
   d. “Someone is eating for the chicken.”
   
   e. “the chicken that is eating”
   
   f. “where the chicken is eating”
   
   g. . . .

On Gil’s (2008) classification, English, by contrast, is highly compositionally articulated since a sentence like *Chickens eat* only allows one interpretation with respect to ‘chicken’ and ‘eat’, namely that *chickens* is an actor with respect to the eating relation.

If we try to extend McWhorter’s (2001a) notion of simplicity to the associational/articulated distinction, then it would seem most reasonable to take the compositionally associational relation as simpler than the compositionally articulated one since the former is less specified in nature. This lack of specification may be more complex from certain points of view, for example that of the hearer. However, it would nevertheless make for a simpler overall grammar.

So, what do we find for creoles with respect to the associational/articulated discussion? Table 6 summarizes results presented in Gil (2007:88) ranking a number of languages from most asso-
The three creoles in Gil’s study, Papiamentu, Sranan and Bislama, are bolded.13

Two points of interest emerge from table 6. The first is that the three creoles do not fall at the simplest end of the scale—thus, once again, as with the case of segment inventories, we see a case where creoles are not syntagmatically simple. At the same time—and, again, like segment inventories, they fall in the middle of the scale, not the extremes. Given that concatenation is the most prominent type of syntagmatic relation, the fact that we once again see apparent “averaging”, rather than simplifying, effects is striking. As with segment inventories, the model in figure 1 does not predict extreme simplification of the interpretation of concatenation under creolization. Thus, the results in table 6, though preliminary in nature (Gil 2007:89, fn. 8)) are largely in line with the general claims made here that there is no reason to expect extreme syntagmatic simplification during creolization.

12 The ranking in table 6 was derived by averaging the associationality scores across the two tests found in Gil (2007), namely the availability of a bare peripheral and a bare patient preceding reading. While it is not obvious that this is the best way to achieve a unified ranking like the one presented in table 6, the general points to be made here regarding the associational/articulated distinction in creoles would seem to hold under any reasonable way of determining such a ranking. In particular, the relative ranking of the creoles appears fairly robust as does the fact that they are not found at the “extreme” ends of this typology. (However, we must bear in mind that Gil (2007) represented a report of work in progress (see Gil (2007:89, fn. 8)) not a definitive final study.)

13 Comparable data is presented in Gil (2008:121). The results of Gil (2007) are discussed here since they include Sranan figures, which are not reported in Gil (2008).
4.5 The paradigmaticity of tone

McWhorter’s (1998) creole prototype gives tone a special place within creole typology. Specifically, McWhorter (1998:793–796) suggests that one of the defining features of creoles is their lack (or almost lack) of lexical and grammatical tone. I share some of the skepticism of Ansaldo and Matthews (2001:316–317) regarding the empirical basis of this aspect of the creole prototype given that many logically possible kinds of contact among tone languages of different types simply did not take place en route to the development of the world’s attested contact languages. Nevertheless, there is something quite interesting about the tonal criterion in the present context: Tonal phonetics contrasts from segmental phonetics along precisely the paradigmatic/syntagmatic opposition of focus here.

Unlike segmental contrasts which, at least to a large extent, are associated with consistent acoustic cues—for example, a burst for stops and noise for fricatives—tonal contrasts are realized by an acoustic cue—namely, F0—which is inherently gradient in nature and whose “baseline” varies widely from speaker to speaker. Because of this, determination as to whether or not a language makes use of tone for lexical or grammatical marking inherently requires paradigmatic comparison to discover abstract oppositions rather than working purely with phonetic correlates. Therefore, except in cases of contact among languages with particularly similar tone systems (in both phonetic and phonological terms), it is essentially impossible for a tone system of any sort to be transferred into a jargon without a tonal paradigm being transferred with the linguemes of a jargon.

To make the discussion more concrete, consider the hypothetical “tonal” contrasts in the constructed data in (8).

(8) a. [tata /l]

b. [tata ‘l]
c. [tata /l]

Each of the words in (8) contains a phonetic rise. If all three were transferred into a jargon with the phonetics of their rises more or less maintained, then, during creolization one might arrive at the “ideal” phonological analysis of the oppositions given in (9). (In (9), an acute accent is for high tone, a grave for low tone, and a macron for mid tone.)

(9) a. /tətə/  

b. /tətə/  

c. /tətə/  

However, not only would transfer of such a system logically entail transfer of a set of words illustrating all of the relevant contrasts, it also entails that, in each case, the relative contrasts be correctly perceived syntagmatically within each lingueme. For example, (8a) must enter the jargon with a higher rise than (8b) or, even if both linguemes are successfully transferred with some kind of rise, the distinction itself between the low-rise and the mid-rise will not be. This is, of course, a tall order—especially given the inherent variation within and across speakers in the precise deployment of $F_0$ to mark tonal contrasts due to both physiology and larger linguistic context.

In short, you cannot transfer a single tone, the way you can transfer a single segment. A [t] can enter a jargon within one lingueme. A high tone can only enter a jargon if accompanied by a low tone. This inherent paradigmaticity of tone makes it susceptible to loss during jargonization in much the same way that inflectional morphology is.\footnote{One might add that, even if, say, a high-low distinction could enter a jargon via an element like [tata /l] it can only do so by paradigmatic comparison of pitch between the two syllables of a single word. In fact, such intra-lingueme paradigmatic comparison seems a plausible route through which at least some tonal phenomena could enter a jargon.}

Ultimately, the problem of tonal transfer relates to its articulatory and acoustic substance (see section 2.2.2)—in this particular case, the substance of tone requires transfer of a paradigm, which is unlikely to be completely successful under jargonization. Obviously, if all of the languages in a given contact setting were tonal, the odds of such transfer being successful would increase.
But, even then, there would be difficulties in transferring a full system, especially given that the relationship between surface tone and underlying tone is often non-trivial.\(^{17}\)

Of course, creoles are not devoid of lexical and grammatical tone. Saramaccan, for example, is uncontroversially a creole but, nevertheless, shows extensive lexical tone and more limited grammatical tone (Good 2004b). In that case, Good (2003) and Good (2009) offer historical accounts of the development of tone in Saramaccan which suggest that its more ornate properties may actually be post-creolization developments. However, there are also cases like Sango (Samarin 1967:39–43) and Kituba (Fehderau 1966:46–47), which make use of contrastive tone but where there is no reason to believe it is somehow a “late” innovation. The general issues raised by such “exceptional” contact varieties will be returned to briefly in section 5.2.

4.6 Paradigmatic (morpho)phonology

The dilemma that opened this paper is whether apparent simplification effects in creoles affected phonology differently from morphosyntax. The general claim has been that there is no evidence for this. Rather, a prominent kind of phonological phenomenon that has been used as desideratum—segment inventories—has offered an inapt comparison with the morphosyntactic desiderata of focus, for example noun classes and case systems. In particular, it has been argued that segment inventories can enter a creole via successful transfer of syntagmatic complexities during jargonization whereas phenomena like noun class systems can only enter a jargon via successful transfer of paradigmatic complexities, which was argued to be inherently disfavored in jargonization.

What, then, would be the appropriate phonological comparanda be to test the idea that creoles are, in some sense, “simple”? What one wants to find are phonological patterns showing comparable paradigmatic complexities to what one sees in inflectional morphology. Consider, for example, the data from the Bantu language Nyakyusa in table 7. (See Hyman (2003:74–76) and Good (2007:214–215) for more detailed discussion. The data was originally reported by Schumann (1899) and Meinhof (1932). Forms are adapted from Meinhof (1932:147–149); daggers indicate

\(^{17}\) Hyman (2009+) contains a recent typological overview discussing many of the possible complications.
forms constructed on the basis of the description.)

<table>
<thead>
<tr>
<th>ROOT</th>
<th>TRANS</th>
<th>APPL</th>
<th>APPL-TRANS</th>
<th>ROOT GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>-sok-</td>
<td>-sos-y-</td>
<td>-sok-el-</td>
<td>-sok-es-y-</td>
<td>'go out'</td>
</tr>
<tr>
<td>-lek-</td>
<td>†-les-y-</td>
<td>-lek-el-</td>
<td>-lek-es-y-</td>
<td>'let go'</td>
</tr>
<tr>
<td>-syut-</td>
<td>-syus-y-</td>
<td>†-syut-el-</td>
<td>†-syuk-es-y-</td>
<td>'swing'</td>
</tr>
<tr>
<td>-kind-</td>
<td>-kis-y-</td>
<td>†-kind-il-</td>
<td>†-kik-is-y-</td>
<td>'pass'</td>
</tr>
<tr>
<td>-jong-</td>
<td>-jos-y-</td>
<td>†-jong-il-</td>
<td>-jok-es-y-</td>
<td>'run away'</td>
</tr>
<tr>
<td>-ag-</td>
<td>-as-y-</td>
<td>†-ag-il-</td>
<td>-ak-is-y-</td>
<td>'come to an end'</td>
</tr>
<tr>
<td>†-tup-</td>
<td>†-tuf-y-</td>
<td>†-tup-il-</td>
<td>†-tuk-if-y-</td>
<td>'become stout'</td>
</tr>
<tr>
<td>†-pub-</td>
<td>†-puf-y-</td>
<td>†-pub-il-</td>
<td>†-puk-if-y-</td>
<td>'get used to'</td>
</tr>
<tr>
<td>†-lim-</td>
<td>†-lim-y-</td>
<td>†-lim-il-</td>
<td>†-lim-ik-is-y-</td>
<td>'cultivate'</td>
</tr>
<tr>
<td>†-lum-</td>
<td>†-lum-y-</td>
<td>†-lum-il-</td>
<td>†-lum-ik-is-y-</td>
<td>'bite'</td>
</tr>
</tbody>
</table>

Table 7: Causativized and applicativized verb forms in Nyakyusa

The data in table 7 give causativized and applicativized forms for a number of verb roots in Nyakyusa. Causativized verbs in the language are marked with a suffix of form -y- (here labeled the Transitive; see Good (2005:12–16)), which, additionally, triggers a fricativization process on certain preceding consonants falling under the rubric of what is generally referred to as spirantization in the Bantuist literature (see Bostoen (2008:305–308)). Applicativized verbs are marked with an Applicative suffix of form -il- (subject to vowel harmony with mid vowels). When both the Transitive and Applicative suffixes appear on the same verb, a striking pattern emerges regarding the form of the root and the shape of the Applicative.

Following a general Bantu pattern (see Good (2005)), the Transitive suffix follows the Applicative suffix in Nyakyusa. In this position, it triggers spirantization on the Applicative’s final consonant causing it to surface as -is- rather than -il-. Due to this morphological ordering, the Transitive no longer directly follows the verb root. One would, therefore, expect that spirantization would no longer affect the verb root and it would appear in its basic form. However, the attested pattern is more complex: It is the case that the final consonant of the verb root is not longer spirantized, but, rather than shifting back to its underlying form, it is replaced uniformly with a k. Thus, for example, instead of the expected causativized-applicativized form for the verb ‘pass’ of *-kind-is-y-, one finds †-kik-is-y—spirantization is “undone”, but not to the etymological final consonant.
In verbs ending in labial consonants undergoing spirantization, the pattern is even more complex. The form of the Applicative is -if-, rather than expected -is-, showing the same consonant the root would have surfaced with if it were followed immediately by the Transitive. Superficially, at least, it is as if the final consonant of the root is being transferred to the end of the stem (see Hyman (2003:75) for a historical analysis of these facts). Finally, m-final roots offer an additional complication. Such roots are not affected by spirantization triggered by the Transitive, always appearing with final m. However, when they appear with both the Applicative and Transitive, a meaningless -ik- formative appears after the verb root. What appears to be motivating the appearance of this formative is a restriction in the language that all causativized-applicativized verbs must contain a sequence like -kis- or -kif- (Hyman 2003:75–76). Roots ending in m do not produce such a sequence “naturally”, but the appearance of the -ik- formative allows the restriction to, nevertheless, be maintained.

The kind of pattern seen in table 7 represents a fairly ornate paradigmatic complexity. As far as I am aware, no creole has been reported as showing morphophonological patterns structured into a paradigm even remotely as complex as this one. Of course, creoles usually do not have particularly complex morphology anyway—which is already a barrier for the appearance of such a pattern. However, in this particular case, there are cases of contact languages with Bantu sources actually having comparable verbal suffixes. Fanakalo, for example, attests reflexes of the Bantu Passive, Perfective, and Causative suffixes (Cole 1964:551) and Bold (1977:9) even describes the possibility of combining the Perfective and Passive suffixes in a single verb form. Kituba, too, seems to make use of at least some of the verbal suffixes common in Bantu (Fehderau 1966:52–53). So, there is no reason to believe that morphosyntax of the verbal suffixes themselves is somehow too “difficult” to be transferred into a contact language. In the Fanakalo and Kituba case, though, 18

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18 The Fanakalo Passive suffix is described by Cole (1964:551) has having form -wa, traceable to Proto-Bantu Passive suffix *-u- plus the inflectional Final Vowel characteristic to many Bantu languages. The Fanakalo Causative has form -isa, traceable to Proto-Bantu Causative *-ic- (an etymologically distinct causativizing suffix from the Transitive suffix seen in the data in table 7). The Fanakalo past tense suffix has form *ile traceable to the Proto-Bantu Perfective *-jd-e. The form Bold (1977:9) gives for the Perfective Passive *iwe would derive from a combination along the lines of *jd-u-e where the middle *du sequence would have simplified to w. (See Schadeberg (2003:72–79) for overview discussion of the Bantu verbal suffixes involved in valence marking and Nurse (2008:264–276) for discussion of the Perfective.)
these suffixes do not appear to exhibit any allomorphy, let alone the paradigmatically complex allomorphy illustrated in table 7. The formal complexities appear to be the issue here, more than functional ones.

While it awaits empirical verification, I suggest that it is paradigmatic phonological complexities like the sort seen in table 7 which should be unusual for creoles, whether they be intertwined with morphological processes or largely allophonic in nature.\(^\text{19}\)

5 Conclusion

5.1 The world’s most paradigmatically simplified grammars are jargonized grammars

The largely programmatic nature of this paper, of course, precludes the possibility of being able to empirically establish any falsifiable claim of general import for the study of contact languages. However, the arguments above do point to a refinement of the claim made in the title of McWhorter (2001a). Specifically, rather than claiming that the world’s simplest grammars are creole grammars, perhaps, instead, the appropriate claim is a narrower one: “The world’s most paradigmatically simplified grammars are jargonized grammars”.

This more cumbersome statement has the clear advantage of being more precise and, given work like Klein (2006), it perhaps has the more important advantage of being more accurate, as well. Not only does it attempt to narrow the range of simplification effects in creoles to loss of paradigmatic complexity, thereby remaining agnostic on the issue of syntagmatic complexity, it also delimits the grammars under its scope to those which have undergone a particular process rather than those which are, at least by today’s classification, believed to occupy a certain state (i.e., “creole” as opposed to, say, “pidgin” or “regular language”). This reflects better the fact that, to the extent that creoles may be simple, this is the result of the historical forces that shaped them rather than any synchronic deficiencies of the languages or their speakers, which is clearly the intended interpretation of McWhorter (2001a).

\(^\text{19}\) McWhorter (2001a:136, fn.7), in fact, suggests that this might be relevant, despite his alternative focus on segment inventories.
The distinction between process and result has a noteworthy analog in the typological literature in Greenberg’s state-process model of language typology, which examines both the possible synchronic states that languages can occupy and the diachronic processes which mediate transitions between states (Greenberg 1978, Greenberg 1995). Bybee (2008:108) even goes so far as to suggest that “the focus for establishing the explanations for cross-linguistic similarities should be on the mechanisms of change…”, thus unambiguously giving process a privileged position over state in explaining cross-linguistic patterns.

I will explore this idea, and its consequences for creole studies, in more detail in the following section.

5.2 Creoles and sociohistorical effects on language typology

The perception that creoles are “exceptional” in some sense has been a driving force both for advances within the study of contact languages and in making scholarly work on these languages relevant to the larger linguistic community. One factor in Schuchardt’s investigations into creoles was the role they could play in illuminating language contact more generally (see Fought (1982:425) and Holm (2000:27–34) for relevant discussion). And, he was quite explicit in believing that creole languages had much to offer the study of general linguistics specifically because of the sociohistorical circumstances under which they arose (Schuchardt 1914:iii/Schuchardt 1914/1980:91), rather than adopting the view that these exceptional sociohistories were irrelevant for gauging the extent to which creoles can contribute to a deeper understanding of language (DeGraff 2005:577).

Continuing in this tradition, the now classic work of Thomason and Kaufman (1988) made extensive use of pidgins and creoles in developing a general model of language contact, highlighting the ways in which their development is and is not like other forms of language contact. Again, the exceptional status of such languages was key for their research. In particular, an important contribution of their work was to establish a framework for language contact which allowed one to distinguish, in general, the difference between languages that had undergone normal transmission, even if greatly affected by contact, from those which had undergone imperfect transmission.
The former is the only sort of transmission, in their view, which allows one to speak of a genetic relationship holding between an earlier and a later speech variety. The motivation to make a distinction is not merely pedantic. Rather, it underlies the ability for linguists to develop principles for determining when the results of the comparative method can be said to support a hypothesis of a genetic relationship between two languages. Here, pidgins and creoles are playing a crucial role in allowing us to understand the limits of one of the most important methodologies ever developed in linguistics.

Probably the most famous vein of research building on the notion of creole exceptionality is Bickerton’s (1984) Language Bioprogram Hypothesis (see Veenstra (2008) for overview discussion of the hypothesis and its impact). While the research program emanating from this hypothesis is no longer actively pursued within creole linguistics, there is no denying it had a substantive impact on the field. In addition to spurring a good deal of research attempting to disprove it, it also established a framework for integrating creole studies with generative syntactic theory, building another bridge between creole studies and wider linguistics.

McWhorter (2001a), too, made use of the idea that creoles are, in some sense, exceptional, thereby linking creole studies to the broader study of typology. The bulk of McWhorter’s discussion rested on the state of creole typology rather than the processes of creole typology, and, unsurprisingly, the bulk of reaction to McWhorter has been on whether or not his claims about the state of creole grammars are accurate. However, if our interests are not simply deciding whether or not this or that claim about creoles is “correct” but, rather, using different models to explore the nature of creoles and see how creole phenomena connect to the broader linguistic picture, then this focus on the state of creole grammars is likely to be relatively uninteresting, in my view. Ultimately, such debates will founder on terminological quibbles on what counts as “simple”, what counts as “complicated”, what counts as a “creole”, etc. And, the more the debate centers around terminological particulars, the less it will result in development of substantial new generalizations. (See also Siegel’s (2007) discussion of how the opposition between superstratist and non-superstratist creolists may appear to be starker than it is in reality due to terminological disagreements.)
I would like to suggest here, therefore, that when considering the issue of creole “simplicity”, one way forward may be to set aside matters of the state of creoles and, instead, focus on processes that result in simplified patterns. Focusing on process is not a new idea of course (see, for example, Hymes (1971:65)), but it does not appear to have taken center stage in debates on creole typology. The reasons for this suggestion for this are not simply to avoid reiteration of stale debates but because they offer a new way for the exceptionality of creoles to contribute to the general study of language. In particular, the beginning of the twenty-first century is seeing a renewed interests in the interactions between language, culture, and history. On the one hand, this is a result of a shift within the field of typology where the questions of interest are increasingly shifting from “what’s possible” to “what’s where why” (Bickel 2007:39). Such a shift in focus implies an increasing examination of the historical factors—e.g., language spread and language contact—which explain present-day distributions of types. On the other hand, the field has seen a marked renewal of interest into exploring the impact that culture can have on grammar (see, for example, Enfield (2002) and Evans (2003)).

Just as it was recognized by Schuchardt that creoles had important lessons for the historical development of languages in the context of a field that was particularly interested in genetic historical linguistics, today we should recognize that they have important lessons for a field which has become increasingly aware of the complex connections between culture, history, and language. To be sure, the key ideas behind such research questions are not new. Thomason and Kaufman (1988:4), for example, explicitly situate their approach with respect to social considerations, and Trudgill has looked at the relationship between social structure and language typology for more than two decades (see Trudgill (2009) for a recent summary of his views). The difference now is, as well-summarized by Bickel (2007:40), interest in this area has increased to the point where the time seems right for increased dialogue between creolists and typologists about the historical processes—in a broad sense—which shape grammars.

The interest of creoles to these issues is two-fold. On the one hand, the results of studies of creoles whose history is relatively well-known can be used as a guide to reconstruct the historical
circumstances of languages for which no records are available. McWhorter (2008) offers one such application of this idea, suggesting that certain languages must have undergone significant imperfect transmission in their past purely on the basis of their typological profile. While this kind of reasoning has precedents going back decades (see, e.g., Polomé (1996) for discussion of work trying to explain divergences between Germanic and the rest of Indo-European by appealing to special historical considerations), it is clear that creole studies has a special contribution to make because of the decades of research that have gone into clarifying the sociohistories of so many contact languages (see Arends (2008) and Singler (2008) for relevant overviews). This work may have been originally engaged in to answer questions internal to the study of contact languages, but now it offers lessons that the field of typology at large is growing increasingly receptive to.

On the other hand, the sociolinguistic events that produced creoles and other contact languages are so distinctive from those governing so-called normal transmission, that, just as they offered interesting testing grounds for models of language contact and genetic linguistics, they also offer useful contrasting cases for models of the impact of language on culture constructed for non-creoles. And, there is also sufficient diversity within the pool of contact languages to offer a number of exemplary cases of the interaction between sociohistory and language structure.

In focusing on historical process in this way, rather than having to “explain away” non-prototypical contact languages like Sango or Kituba (McWhorter 2005:19–20), the fact that they are different from, say, Saramaccan, is a positive thing since it expands our database of possible results of contact, thereby permitting further testing and refinement of our models of the interrelationship between sociohistory and grammar.20 It also permits us to look at results like those of Bakker (2003), where pidgins apparently show more complex morphology than creoles, not simply as surprising “oddities” but as invitations to explore the sociolinguistic processes that could result in such patterns. Presumably, for example, there are alternate routes toward “creolization” than the one depicted in figure 1 without a jargonization stage and, therefore, without radical paradigmatic simplification. It would be intriguing, for example, to determine if deliberate simplification of

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20 Cases of apparently “creolized” non-creoles, like what Grant (2007) provides offer comparably interesting test cases.
the sort described by Thomason and Kaufman (1988:174–175) leaves a distinctive and detectable “signature” on a contact variety from paradigmatic simplification via jargonization as described here.

Of course, the benefits here are not one way. As with the recent work of Plag (2008) integrating work on second language acquisition with creole studies, work across subfields helps refine our understanding of creoles as well. Furthermore, the more input there is of creole data to more general models of the development of linguistic structure, the more useful those models will be for application to future studies of creoles. Ultimately, I believe, creole studies has much to gain by taking the wealth of material it has gathered on how sociohistory has shaped creole grammars and applying it to more general work on the relationship between a language’s history and its grammar being engaged in by typologically-oriented linguists. At the very least, it would seem to present an interesting new bridge for the field to attempt to build.
References


