

Footnotes

⁰I am grateful to the participants at BLS for their several comments and suggestions, in particular, Charles Fillmore, Knud Lambrecht, Randy LaPolla, Yoshiko Matsumoto, and Seiko Yamaguchi. I would also like to thank Yo Matsumoto, P. J. Mistry and Linda Thornburg for their comments.

¹The use of the terms 'verb' and 'verbal' here is at issue. I use the term 'verb' (in the *ni* construction) to refer to the stem form of a verb, and the term 'verbal' (in the *koto wa* construction) to refer to the verb or adjective stem form plus tense.

²As the following examples indicate, the acceptability of the passive form *-(r)are* in the *ni* construction seems to differ depending on the verb.

(i) a. ?Boku wa sensei ni sikar-ini sikar-are-ta.

I TM teacher by scold scold Pass Past

b. Boku wa sensei ni sikar-are-ni sikar-are-ta.

I TM teacher by scold Pass scold Pass Past

(ii) a. Boku wa sensei ni home-ni home-fare-ta.

I TM teacher by praise praise Pass Past

b. ?Boku wa sensei ni home-fare-ni home-fare-ta.

I TM teacher by praise Pass praise Pass Past

³Note that there are so-called syntactically formed, or productive, compound verbs. These compounds are semantically transparent. The second members in these compounds usually express aspectual meanings, and are close to auxiliary verbs (e.g. *tabe-owaru* 'finish eating', *tabe-hazimeru* 'start eating').

⁴For example, the *ni* construction rejects nondurative verbs, such as *tuku* 'arrive' and *tomaru* 'stop' (e.g., (i)); nor does it allow compound verbs containing the verb *suru* 'do' (e.g., (ii)).

(i) *Boku-tai wa tyoozyoo ni tuk-ini tui-ta.
we TM summit reach reach Past
'We reached the summit to an extreme extent.'

(ii) *Kino wa kaimono-si-ni kaimono-si-ta.
yesterday TM shopping-do shopping-do Past
'Yesterday, (I) did shopping to an extreme extent.'

⁵As will be discussed later in this paper, it is true that the proposition in the 'clause' preceding the *koto wa* is often something that has been recognized in the preceding discourse. Yet, it cannot be considered the topic of the sentence, because the second verb in the *koto wa* construction by itself is not the comment, and also because the whole sentence including the second verb is kind of an echo statement.

⁶I owe this observation to Knud Lambrecht.

⁷This point was brought to my attention by Yoshiko Matsumoto.

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Copula Contraction And Absence In Barbadian English, Samaná English And Vernacular Black English*

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This paper is part of a general attempt by our research group at Stanford to reopen some fundamental theoretical and methodological issues in the analysis of the copula in American as well as Caribbean varieties of English, and to bring some new--and needed--data to bear on such issues. Other papers we have written in recent years deal with American vernacular varieties (McElhinny 1988, Rickford 1989, Rickford et al 1988). This paper examines copula contraction and deletion in mesolectal Caribbean English, as represented in casual speech data from six Barbadian speakers.

Although studies of the copula in Caribbean English have been available for some time now, and comparisons with Vernacular Black English (VBE) have become more frequent in recent years, there are no quantitative, accountable descriptions of the Caribbean English copula comparable in sophistication and scope to those available for VBE.

Table 1, for instance, is from Bickerton's (1973) study of the Guyanese copula. To its credit, this study was corpus-based and accountable, in the sense of reporting all variant forms used by each speaker, rather than only those considered representative of the dialect. In these respects, and in its use of the dynamic/implicational framework pioneered by DeCamp (1971) and C.J. Bailey (1973), it was a significant advance on the useful but brief characterizations of the basilectal creole copula which B. Bailey (1965) and Stewart (1969) had provided. However, Bickerton's study was not quantitative. A speaker who used one token of zero and ninety-nine tokens of *iz* before adjectives would be represented no differently (by a 1/3 entry in column 6, table 1) than a speaker whose distribution was the exact opposite (ninety-nine tokens of zero and one of *iz*). And while it is helpful to know how often such 1/3 patterns were manifested by different speakers, as against the categorical zero-only (1) or *iz*-only patterns (3), this is less informative than a full-fledged quantitative study. Another problem was the number of empty cells in Bickerton's study (see Pavone 1980).

Holm's (1976, 1984) study of the copula in Jamaican and Gullah, although serving as a springboard for one of the most insightful discussions of the creole origins of VBE (see also Baugh 1979, Labov 1972), was also limited in several respects. It was based on secondary data from a small number of speakers recorded years earlier (in the case of Jamaica, a single lower mesolectal speaker whose Nansi stories were included in LePage and DeCamp 1960) and it involved some analytical and counting decisions which Holm himself acknowledged (1984:303, n 3) to have been inappropriate.

After having worked on Miskito Coast Creole ... I realize that table 1 reflects some naive assumptions which I held when this paper was first written. Not all words corresponding to forms of standard English be should have been lumped together. [iz] should have been treated separately (as the equative copula before noun phrases), while [wəz] and [bɪn] simply mark anterior tense and have little to do with the copula beyond their etymology.

However, no revised analysis of the Jamaican and Gullah data has yet appeared in print. Three Stanford students (Jennifer Knobel, Diana Loo and Michelle Robinson, as part of a class presentation in Linguistics 73, "Black English," 1987) have recoded the data from the source material and provided a preliminary recalculation of the statistics in table 2, but we need to check the recordings and calculations before publishing them. In the meantime we will give one example, in the conclusion of this paper, of how dramatically the reanalysis process can affect Holm's data, which have been accepted as the standard of reference for Caribbean copula absence.

Finally, like virtually all other work on the Caribbean copula to date (Edwards 1980 and Escure 1981 are two other studies which we can only mention in passing here) Holm's study does not examine copula contraction, and its copula absence data (see table 2) are for following grammatical environment only. The advantage of a multivariate analysis, of the sort provided by the variable rule program (VARBRUL), is that the effects of other constraints, such as preceding grammatical and phonological environment, can be simultaneously examined (see Rickford 1990).²

These limitations in previous studies of the Caribbean copula are significant in their own right, and because they imperil comparisons with VBE. For instance, Poplack and Sankoff (1987) provide a quantitative, variable rule analysis of the English spoken in Samaná (Dominican Republic) which agrees in a number of respects with earlier analyses of American VBE but not with those of the Caribbean. From this, they conclude that Samaná English is closer to VBE and challenges the creole origins hypothesis, since Samaná English speakers are the descendants of African Americans who emigrated from Philadelphia, New York and New Jersey in the 1820's, and their speech is assumed to be a lineal descendant if not equivalent of African American speech in the early 1800's. However, the Caribbean data which provide the basis for comparison are inadequate, as explained above.

In order to provide a more comparable data base for Caribbean English, we made a series of recordings with some native speakers in Barbados a few years ago and now present a VARBRUL analysis of copula contraction and absence in their speech. Our data base is very similar to the one used by Poplack and Sankoff (ibid) for Samaná both in terms of sample size (theirs: 494 full, contracted and deleted copula tokens, ours: 522) and number of speakers (theirs: 8, ours: 6). Barbados is an excellent data source for our purposes because its English vernacular is a mesolectal creole—the kind which is most similar to VBE, especially with regard to copula absence (Bickerton 1973, Escure 1981:2, Holm 1984:303), and the kind which is therefore most profitable for attempts to reconstruct the history of VBE (see Rickford 1974). Anticipating the query some might raise of whether Barbadian English is not atypical of the Caribbean (see Hancock 1980, Cassidy 1980), note that the Barbadian English vernacular (as distinct from the normative Barbadian variety which is commonly cited) shares many creole phonological and lexical features with the English vernaculars of other Caribbean territories. Although some creole grammatical features, such as basilectal habitual *a*, have not been attested in Barbados in modern times, other grammatical features, such as mesolectal habitual *doz*, are very common there (see Morrow 1984, Rickford 1989).

In this regard, it is significant that Barbadian—in common with the vernacular English of Guyana, Jamaica, Samaná and Trinidad, but not mainland US VBE—allows zero auxiliary and copula (for convenience we'll refer to both as "copulas") with first-person subjects, as in these two examples from Peter, a Barbadian fish-vendor:

- (1) I \emptyset gon be a Rasta.
- (2) I \emptyset tekkin' off de heads.

This is of course consistent with a creole history in which *gon*, Verb+ing and adjective predicates (as stative verbs) occur without copulas in underlying structure (see Bickerton 1973, DeBoise and Faraclas 1988:476), and in which variations in copula presence on the surface are plausibly treated as due to copula insertion rather than deletion. In any event, the frequency of sentences like (1) and (2) prompted us to follow Poplack and Sankoff (1987) in including all potential occurrences of *am*, *is*, and *are* in our analysis, discriminating between them through a person/number factor group. (There was little person/number non-agreement, except for occasional uses of *is* with plural and first person subjects.) Like them, and like other students of the copula, we discounted *is* tokens followed by words beginning with *s*, clause finals, and other invariant or indeterminate cases. Unlike them, however, we did NOT include reduced or full forms of *it's*, *that's* and *what's* in the count, for the same reason Labov (1969) and earlier scholars had excluded

them—the fact that they occur overwhelmingly as frozen, contracted forms.³ (It should be noted that 84% of the Samaná tokens of these forms (136/162) are contracted, and that they account for fully one third of the copula tokens (162/492, p. 304) in Poplack and Sankoff's analysis.)

Displayed in table 3 are the variable rule (VARBRUL) probabilities for the contraction and absence/deletion of *am*, *is*, and *are* in Barbados and Samaná. In order to make our analysis comparable to earlier analyses of Samaná by Poplack and Sankoff and of VBE by Labov and Baugh, we will present results for contraction and deletion as computed by Labov's method (see table 4), and we will generally ignore the effects of alternative computational methods (see Rickford et al 1988). However, we have analyzed our data according to each of the formulae in table 4, and at various points in this paper, we will comment on the differences, if any, that they make. (The theoretical motivation for the "Labov contraction" and "Labov deletion" formulae is that contraction is a necessary prerequisite to deletion; hence surface deletions should be included in the numerator for contraction, and full forms should be excluded for the denominator for deletion). Note too that in the logistic model used in this program, probabilities greater than .5 favor rule application, those less than .5 disfavor rule application; and those just about .5 have little or no effect. Parentheses denote results for factors that were not selected as significant by the regression analysis in the VARBRUL program.

CONTRACTION

Looking first at the contraction results for Barbados (the first data column in table 3), we see a major effect exerted by the nature of the SUBJECT, with personal pronouns (like "he" and "they") strongly favoring, and a full NP subject (e.g. "The man") strongly disfavoring contraction. This effect matches the results reported by Labov and others for VBE and the results reported by Poplack and Sankoff for Samaná (as shown in table 3, although their factor groups don't correspond to ours exactly).⁴ One reason for separating the personal pronouns from other pronouns (e.g. "this", "there", and "somebody") is that the personal pronouns now all end in stressed vowels, allowing us to determine whether the strong effect of pronouns simply reflects the separate favoring effect of a preceding vowel that Labov (1972) had found. Even in Labov's data (ibid., 103, table 3.3) the pronoun effect for Labov contraction had exceeded the effect of a preceding Noun Phrase vowel. But the independence of the two constraints is even clearer in our Barbados data, since other pronouns, generally ending in consonants, remain somewhat favorable to contraction (.58), while preceding phonological environment, as an entire factor group, was thrown out as insignificant (note the square brackets around the probabilities for a preceding consonant and vowel in the Barbados contraction column, table 3). In future work, we plan to examine the effects of stress on contraction independently (for instance, in JOE's here vs. the Radio's here, both NPs, where capitalization indicates stressed syllables) in an attempt to unravel the explanation for the Pro/NP effect which has remained something of a mystery for twenty years.

Turning now to the other factor groups, note that in the PERSON-NUMBER factor group the Barbadian data agree with the Samaná data in showing *is* most favorable to contraction, and *are* least favorable, with *am* in between.⁵ The disfavoring effect of *are* on contraction may be due to the fact that true *are* contraction is normally blocked after consonants, which is not the case with *is*. (Compare "John's at home" with "The men're at home"; the copula in the latter, though reduced, never forms a single syllable with the noun.)

Continuing down column 1 of table 3, note that a FOLLOWING PHONOLOGICAL ENVIRONMENT was significant for contraction in Barbados but not in Samaná. The favoring effect of a following vowel in our data may relate to the preferred CV phonotactic environment which a following vowel creates, insofar as the copula consonant remaining after contraction can be reinterpreted as the onset of the following syllable, as illustrated in the following sentences:

- (3) Joe zover the hill (CV#CV'CV...), vs
 (4) Joe'z beside the hill (CVC CV'CV...)

Returning to table 3, note that the hierarchy of FOLLOWING GRAMMATICAL ENVIRONMENTS agrees with Labov's findings for the NYC Cobras and Jets, and Poplack and Sankoff's findings for Samaná. The parallelism is especially striking for Barbados and Samaná, which both show gonna significantly ahead of Verb-ing (.91 versus .55, and .90 versus .48 respectively) while the gap between these two environments in Labov's NYC data (Labov 1972:86-87) is much smaller (3 percentage points for the Jets, 4 percentage points for the Thundebirds). One interesting point about this hierarchy, however, is that it is completely reversed when the data are computed by the "straight contraction" rather than the "Labov contraction" formula: A following NP becomes most favorable, and a following gonna least. This is because the "Labov contraction" hierarchy for following environment derives primarily from the high proportion of copula deletions or absences in the data; once these are removed, the hierarchy collapses. To our mind, this is as it should be; there are valid reasons for following grammatical environments to pattern as they do with respect to copula absence, in terms of prior creole grammatical categories (see Holm 1984:298); but no explanation has yet been proposed for their having a similar effect on copula contraction.

If we now turn our attention to the SPEAKER factor group at the bottom of table 3, we see that this factor group was thrown out as insignificant for contraction in the Samaná data. However, Poplack and Sankoff did find a significant speaker effect for copula deletion (see the far right column), leading them to observe (p. 308) that "as expected, it is the process of deletion which has social significance in the community, in contrast with contraction."

However, if we look at the Barbados data, we see that the expectation that contraction would have no external or inter-speaker significance is not sustained. The speaker factor group was significant both for contraction AND deletion, with individual speaker values varying quite significantly in each case. Furthermore, significant effects are obtained for this factor group regardless of the contraction formula used. Now, can we say anything more about this external factor group beyond the fact that individuals vary? There isn't any obvious effect of gender (Mary, the only woman, has VARBRUL results which are almost identical to Peter's), race (Daniel, the only white speaker, is comparable to Mac, a black speaker), nor social class and age (most of our speakers are in their twenties and thirties and clearly working class). The single biggest effect seems, in fact, to be the stylistic level each speaker adopted in the interview, itself a function of various contextual factors, including his or her relation with the interviewer and other interlocutors (Bell 1984). This can be illustrated most dramatically with the example of Crickeman, the captain of a local cricket team, who was fortuitously interviewed while watching a cricket match. Crickeman varied so dramatically in his speech to the interviewer versus his speech to his teammates that we've identified him as Crickeman 1 and Crickeman 2 in the transcript which follows, and also in the analysis (see table 3). He really behaved like two different people in each persona:

(5) From an interview in August 1987. (Crickeman 1 = dialogue with interviewer, Renee Blake; Crickeman 2 = dialogue with peers; countable instances of copula in his speech are underlined.)

Crickeman 1: Because right now you are in de northern part of de island--St. James, St. Peters, St. Vincent--St. Andrews, St. Thomas. Now some of dese guys are from de southern side which would be St. Michael--the batting side--most guys will be, Christ's Church. You play on a sort of--you know, but de guys are interzonal. Ya understand?

Interviewer: Right, right. You're from where? St. James?
 Crickeman 1: Yeah, yeah. . . .

impressionistic claims for Caribbean varieties made by earlier researchers. Note too, that these results are robust, unaffected by the computational formula used.

The deletion results for the FOLLOWING GRAMMATICAL factor group are also robust. Here the hierarchy is clearly Gonna, Verb-ing, Loc., Adj., and NP (way behind) regardless of the method we use. The inexplicable, only slightly disfavoring effect of NP which Poplack and Sankoff had found is not replicated in our data, but our Locatives are ahead of Adjectives, as in their data, and in Labov's Jets data. Interestingly enough, the "high Adj." (over Loc) pattern which Baugh found for deletion in Labov's data for the Cobras and in his own Los Angeles data was not replicated.

For the sake of comparability, Figure 1 displays relative frequencies (not probabilities) for copula absence (computed as "straight deletion") in the Barbados and Samaná data sets, and in the NYC Jets and Jamaican data analyzed by Labov (1972:86) and Holm (1984:86) respectively. The NYC Jets and Barbados patterns are parallel throughout the range, except that the Barbados data show a bigger NP vs. Adj effect, comparable to that which obtains in the Jamaican data. (Adjectives, of course, are really a subcategory of verb in creole grammar, and require no copula, while noun phrases are quintessential statives and almost always require a copula, whether creole or English-derived.) The Samaná data resemble both the Barbados and NYC Jets data in the relative ordering of the various environments, although the absolute frequencies are lower.

Beyond the initial similarity of their NP vs. Adj effect, Jamaican and Barbados diverge sharply, but we have reason to suspect that this divergence is more apparent than real, a function of the fact that Holm's Jamaican figures include percentages for basilectal creole markers (like preverbal de) which are excluded from serious alternation with de and the inflected copula once a certain level of the continuum is reached. In the Verb-ing case, for instance, only de and inflected is or are can occur in equivalent syntactic slots; basilectal de and a cannot co-occur with Verb-ing ("dem de waikin"), but only with Verb ("dem de go"), and therefore tokens with these variants should not be considered along with the others. However, 82% of the variants in Holm's preverbal subcategory for Jamaican (see table 2) come from de and a; if these are removed, leaving only tokens of inflected be and de, the proportion of zero for Verb-ing climbs to 89%, matching the Barbados data. A similar categorization or computation error probably account for the low gonna figure which Holm (ibid.) reports for Jamaica (32%, p. 293), possibly a failure to separate gonna (derived from going to) and therefore capable of showing variation with de and be) from go. As Holm himself observes (ibid., p. 298), go is a preverbal irrealis or future tense marker which was never preceded by any copula-like particle in the creole. (Even in VBE, we have found, following a suggestion of Raina Jackson's, that gon as in "He gon tell," shows a higher proportion of copula absence than gonna, as in "He's gonna tell.") Although we haven't completed all the necessary reanalyses and recalculations of DeCamp's Jamaican data originally examined by Holm, we expect them to show copula absence figures for gon as high as in our Barbados data and in line with the other data sets. In short, we expect the parallelism between the four data sets of figure 1 to be even stronger.

SUMMARY AND CONCLUSION

In this paper, drawing on recently collected Barbadian data, we have provided the first data-based discussion of copula contraction in Caribbean English, and the first quantitative, VARBRUL analysis of copula contraction and absence in a Caribbean English variety other than Samaná. The results are interesting in their own right, but are especially significant for the challenges they offer to the conclusions of Poplack and Sankoff (1987) that copula contraction and absence in Samaná and VBE are similar, and different from the creole or Caribbean patterns established by Holm (1984).

For contraction, as computed by Labov's formula (see table 4), we note a number of striking parallels between Barbadian, Samaná and VBE, especially with regard to the effect of the grammatical subject, the copula form in question (am vs is vs are), and the following grammatical environment. Thus, the contraction similarities which Poplack and

Crickeman 1: Yeah, yeah. . . .

Crickeman 2: Hit de ball through de fielders, man! Marpuh, wha yuh *Q* doin'?

Interviewer: Who's winning now?

Crickeman 1: Well--'i--i'--'i' it still--de game is not at a stage of winning (?). It's a question of--de batin' side has a hundred and something runs to knock off, so it's not--de game is not at a stage.

Interviewer: Oh, I see what you're saying.

Crickeman 2: Go on Marpuh! Daz a straight ball! Daz a straight ball! Man, he *Q* out! Daz a straight ball! Dat ball ain't tum nowhere! He *Q* out!

Of the eight potential copula tokens which occur in this extract (there are also five tokens of contracted *its* and *daz* which were treated as "Don't Count" [DC] forms for the reasons given earlier), five occur in the speech of Crickeman speaking to the interviewer--and they are all full forms (i.e. *are*), while three occur in the context of the animated Crickeman yelling onto the field--and these are all zeroes or deletions, contributing to the contraction count according to Labov's formula (table 4). Overall, Crickeman's contraction probabilities vary from .22 to .80 in the two modes, and his deletion values from .14 to .88. (Comparable differences remain even with other contraction and deletion formulae.) Although Poplack and Sankoff were sensitive to possible interviewer and stylistic effects and carried out "standard sociolinguistic checks for detecting more vernacular styles," they may not have fully estimated the potential size of the interlocutor effect.⁶ In general, the high and low figures for contraction and deletion in our data seem to correlate most clearly with the degree of rapport which was established between the interviewer and interviewee. After Crickeman 2, the two Barbadians with the highest contraction and deletion probabilities were Peter and Mary. Peter was interviewed by John, a fellow West Indian and Creole speaker, with whom he was able to converse as an insider on numerous Caribbean topics, and Mary was the interviewee with whom Renee had established the closest "homegirl" relationship beforehand, enabling her to discuss various topics at a level of intimacy that strangers would not. By contrast, Mac, who was more formal throughout this interview with Renee, had much lower contraction and deletion rates.

ABSENCE/DELETION

Although the contraction results for Barbados converge with previous work on VBE and Samaná more than the existing literature might have led us to expect, our results for copula absence or deletion diverge from previous work in several respects.

In the SUBJECT factor group (see the Deletion column for Barbados in table 3), the favoring effect which personal pronouns had shown for contraction is completely reversed, with NP now significantly favoring (.84) and personal pronouns disfavoring (.19). This is clearly different from what Labov had found for VBE, and prevents us from arguing for Barbados what Poplack and Sankoff (ibid., 299) do for Samaná: that "deletion is an extension and generalization of contraction." Note, however, that the Samaná data also show a strong NP favoring effect. It may be that whatever phonological, stress-favoring effect personal pronouns provide for contraction is lost at the level of deletion; and perhaps that copula absence in these two communities, if not in the Caribbean more generally, is not phonologically constrained at all, but rather should be conceived of as grammatically conditioned copula insertion (as many creolists have insisted all along) followed by phonologically conditioned contraction. However, the strong NP-favoring effect in the Barbadian data disappears when you use "straight deletion" instead of "Labov deletion" (Other Pro becomes .59, and Personal Pronoun and NP .46 and .45 respectively), suggesting, overall, that there is no stable effect of this factor group on deletion--that it may be essentially irrelevant.

The deletion statistics for PERSON, PRECEDING PHONOLOGICAL ENVIRONMENT, AND FOLLOWING PHONOLOGICAL ENVIRONMENT fail to show any significant effects for the Barbados data. This is contrary to the Samaná results for person and preceding phonological environment, but in accord with the impressionistic

Sankoff (ibid) demonstrate between Samaná and VBE do not simply line them up on one side, typologically and diachronically, with Caribbean creole vernaculars on the other. Now that contraction data on one Caribbean variety are available, they turn out to be similar to both of these better-documented varieties, providing no opposition to the creole origins hypothesis for VBE.

With respect to copula absence or deletion, Barbadian and Samaná English, in common with other Caribbean vernaculars, both allow for the possibility of zero where standard English and VBE would require full or contracted *am* (the contracted form is virtually categorical in VBE). In short, Samaná English copula absence is not as different from that of the creole vernaculars as we might otherwise have believed it to be. At the same time, Barbados, Samaná and VBE are all fairly similar in terms of the relative effect of following grammatical environment on copula absence, challenging the stereotypes which have developed with respect to this issue: for instance, that Caribbean vernaculars show high rates of copula absence before adjectives but not Verbing or *gonna* (the so-called "high adj" pattern). As we have shown by reanalyzing Holm's copula absence figures for Jamaica, this stereotype may derive from inappropriate counting decisions which make a following Verbing or *gonna* seem much less favorable to copula absence than they really are.

Clearly, additional quantitative and VARBRUL analyses of copula variation in Caribbean varieties--drawing on original data sets from Jamaican, Guyanese and other territories--remain to be done; we have started on the process, along with others (like Winford 1989). This paper should help to indicate the potential value of such analyses, both for understanding Caribbean vernaculars themselves and for pursuing the decades-old controversy about the roots of American VBE.

FOOTNOTES

*An earlier version of this paper was presented in 1988 at the 17th Annual Conference on New Ways of Analyzing Variation in Language (NWAV 17) held at the University of Montreal at Quebec.

1. This is contrary to the impression which the quotation from Bickerton (1971:491) in Holm (1984:303) might suggest: "In the mesolect, 'deleted' copula is found oftenest with *gon* (-*Fut*), not quite so often with -ing forms (Vb) ..."
2. Winford's (1989) conference paper--which we were fortunate enough to see just before finalizing this paper--provides a new analysis of the Trinidadian copula which is data-based, accountable and quantitative. Although it does not employ the variable rule program or any similar multivariate procedure to estimate the individual effects of proposed constraints, its univariate analyses of the effect of preceding and following grammatical environments are extensive and interesting, as are its comparisons with Labov's VBE data.
3. Reduced forms of *dat's* occur most often as *daz*, not *das*, but some *dat's* and *da* also occur.
4. Poplack and Sankoff's study includes only a SUBJECT factor group, with CONTRACTION results for individual factors as follows: NP .08; I .45; he, she, .93; it, that, what, .85; here, there, where, .74; we, you, they, .32; those, them, these, this, .13. For DELETION, their corresponding results are: NP .81; I .06; he, she, .28; it, that, what, .06; here, there, where, .53; we, you, they, .90; those, them, these, this, .43. These figures should clarify the correspondences between our results.
5. Poplack and Sankoff's data show a bigger *are/iz* difference than ours do, but their *is*-probability figure is for *he* and *she* subjects only, while ours includes these subjects as well as singular NPs.
6. The relatively low frequency of copula deletion which they record for Samaná overall (26%) may not be fully representative of vernacular Samaná (compare 19% for Crickeman 1, to Renee). In any case, Crickeman's data remind us of the need for repeated recordings with varying interlocutors (see Labov 1972, Rickford 1987 and Winford 1972).

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TABLE 1

TABLE 1. Implicational table for copula distribution (Bushlotti).

Key: 1 = *de/bin de* in Cols. 1-4; *a/binz* in Cols. 5, 7, 8; *g/bin* in Col. 6.
 2 = *g* except in Col. 6.
 3 = *iz/woz* (no person concord).
 4 = *be* with full person concord.
 Environments: Col. 1 = locative; Col. 2 = existential; Col. 3 = time/manner adverbials; Col. 4 = preceding non-finite structures; Col. 5 = cleft S's; Col. 6 = pred. adj.; Col. 7 = NP complement; Col. 8 = impersonal S's; Col. 9 = V-ing. Scalability = 95.6%.

SPEAKER	1	2	3	4	5	6	7	8	9
23.	1								
16.	1								
7.	1								
20.				1					
24.	1								
26.	1					1			
2.	1					1			
9.	1					1			
25.		1				1			1
4.						1			
12.						1			
14.						1			
6.						1			
21.						1			
10.						1			
28.	1					1			
3.			1						
5.	1			1					
27.	1				1				
15.	1		1			13			
17.			1			13			
1.					3				
13.	1					3			
11.						3			
18.						3			
19.						3			

Source: Bickerton 1973: table 2, p. 651.

TABLE 2

Ranking of Copulas Favored by Following Syntactic Environment

A. Jamaican

	V	Adj	Loc	NP
de	76%	66%	45%	47%
a	17%	23%	17%	31%
be	6%	9%	17%	22%
bc	2%	2%	17%	0%

B. Gullah

	V	Adj	Loc	NP
da	46%	62%	70%	64%
a	28%	13%	22%	12%
bin	11%	13%	3%	11%
3	7%	7%	3%	10%
iz	7%	7%	3%	5%
waz	7%	7%	3%	5%

Source: Holm 1984: table 1, p. 292

TABLE 3

Varbrul Probabilities for Labov Contraction and Deletion of *am*, *is*, and *are* in Barbados and Samaná

FACTOR GROUP	Factors/Constraints	CONTRACTION	DELETION
SUBJECT	Pers. Pro:	.79	.19
	Other Pro:	.58	.45
	NP _:	.16	.84
PERSON NO.	1st Sg: 'am'	.56	.47
	Pl & 2nd Sg: 'are'	.35	.58
	3rd Sg: 'is'	.60	.45
PREC. PHON.	Cons _:	[.48]	[.58]
	Vowel _:	[.52]	[.42]
FOLL. PHON.	Cons:	.41	.54
	Vowel:	.59	.46
FOLL. GRAMM.	Gonna:	.91	.77
	Ving:	.55	.65
	Loc:	.54	.54
	Adj:	.40	.42
	NP:	.16	.08
SPEAKER	Mary:	.64	.62
	Peter:	.63	.65
	Crickman 1:	.22	.14
	Crickman 2:	.80	.88
	Mac:	.43	.18
	Sarge:	.31	.70
	Daniel:	.46	.34
	Not Sig.		
	.37 #1		
	.63 #2		
	.79 #3&4		
	.14 #5		
	.73 #6		
	.39 #7&8		

Overall %s:	74%	77%	61%	26%
# Of Copula Tokens (n's):	522	489	385	376
Input Probabilities:	.86	.89	.88	.54

Notes:
 • Parentheses [] indicate values for factors thrown out as insignificant during VARBRUL regression step-up/step-down analysis.
 • Personal pronouns: *you, she, we, they*. Other pronouns: *these, somebody*, and so on.
 • Crickman 1: Crickman to interviewer (RB); Crickman 2: Crickman to peers during game.
 • Samaná source: Poplack and Sankoff 1987: 306, table 5.
 • Variants of *it's*, *that's*, and *what's* included in Samaná data, but not Barbados data.

TABLE 4

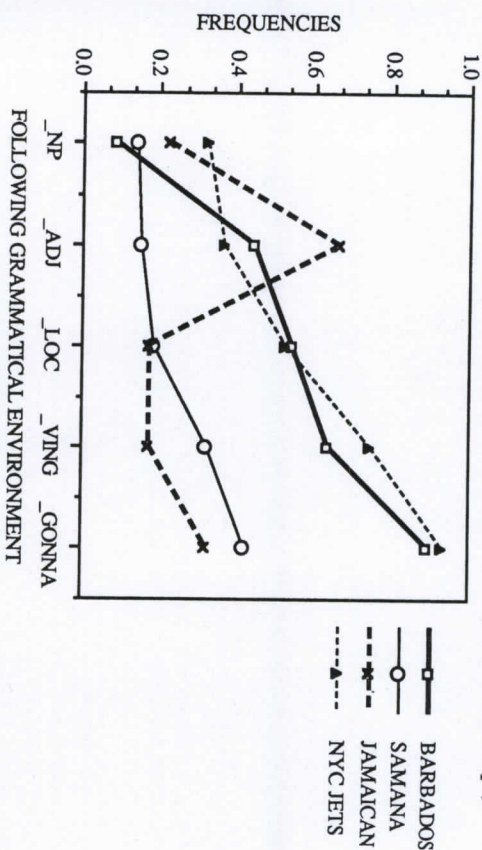
Alternative formulae for computing contraction and deletion %'s

Hypothetical data set: 10 tokens of *is* or *are* (Full Forms, F), 10 tokens of *'s* or *'re* (Contractions, C), 10 tokens of *Ø* (Deletions, D).

Straight contraction:	$\frac{C}{F + C + D}$	$= \frac{10}{30} = 33\%$
Straight deletion:	$\frac{D}{F + C + D}$	$= \frac{10}{30} = 33\%$
Labov contraction:	$\frac{C + D}{F + C + D}$	$= \frac{20}{30} = 66\%$
Labov deletion:	$\frac{D}{C + D}$	$= \frac{10}{20} = 50\%$
Romaine contraction:	$\frac{C}{F + C}$	$= \frac{10}{20} = 50\%$

Source: Rickford et al. 1988: table 1.

FIGURE 1
Copula absence by following grammatical environment (straight deletion freqs.)



Sources: Samaná, Poplack and Sankoff 1987:305; Jamaica, Holm 1984: 293; NYC Jets, Labov 1972:86.

Parts of Speech in Autolexical Syntax

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Aristotle (De Int 2.20, e.g. Ackrill, 1987) told us that nouns are words that do not express time. Bloch and Trager (1942) said that nouns are words that are centers (i.e. heads) of substantive phrases that may be preceded by modifiers. Langacker (1987) told us that nouns indicate regions in a domain, and Miss Reardon told me that nouns are names of persons places, or things.

None of these claims is wrong, per se, but the problem that I see with each of them is that it is one sided. Aristotle's rule for recognizing nouns is (basically) morphological, since what he meant was that Greek nouns do not take tense inflections. Bloch and Trager provided a completely syntactic criterion (though elsewhere, to be sure, they included morphological touchstones). Langacker's characterization is semantic, employing entirely cognitive constructs, and my fifth grade teacher's definition was pragmatic, noting the use to which nouns are typically put. It seems clear to me that nounsness involves all of these things, and that similarly, for other parts of speech, characteristics relating to various linguistic dimensions figure in their classification. The multi-modular view of parts of speech is familiar (see, for example, Schachter 1985), and I will therefore not attempt to back it up, except by example. What I wish to do here is to show that the multi-modular definitions of parts of speech can be given natural and enlightening formulations in a theory, such as Autolexical Syntax, that radically separates the representation of linguistic expressions in the various components of the grammar.

Suppose we take a grammar to be a set of modules or components, each of which is itself a grammar of an independent level of linguistic representation (i.e. the "tactics" of that level in the terminology of Stratificational Grammar (Lamb 1966, Lockwood 1972)). The number and nature of the modules needed for the accurate description of natural languages is a complex, partly empirical, and partly theoretical issue, but to begin with, let us assume the existence of three traditional modules: syntax, semantics, and morphology. The syntax specifies the phrasal constituent structures that the language allows, the semantics gives us the set of well-formed meaning structures in the language, and the morphology the set of well-formed morphological entities, less formally: words. I take it to be a virtue of this system of grammar that there is only one autonomous set of semantic principles, and one autonomous set of morphological principles, a virtue absent in many hierarchical theories where both semantics and morphology are split into two or more quite separate components.

Finally let us suppose that, unlike what is assumed in Stratificational Grammar or Transformational Grammar, these modules are not hierarchically related to one another. Conceived of as a grammar of a certain dimension of representation, a module need not wait for the output of another to do its work, but has the power to generate (or analyze) an infinite set of representations quite independently of what is going on in any of the other components. Each component is a self-contained system, with its own independent set of rules, principles, and basic vocabulary.

The glue that binds these independent grammars together and makes them a description of a single language is the lexicon, an annotated list of the fixed expressions in the language, be they morphemes, words, or phrases. Each item on this list, i.e. each lexeme, also includes statements as to its behavior in each of the parallel modules, indicating, for example, whether the item is a morphological stem or affix, whether it combines syntactically with NP complements, and whether it is a predicate or operator in the semantics, and so on. Besides the lexicon as a link between essentially autonomous