A corpus of Black English (BEV) data is re-examined with exclusive attention to the "is" form of the copula. This analysis differs from previous examinations in that more constraints have been introduced, and the Cedergren/Sankoff computer program for multivariant analysis has been employed. The analytic techniques that are used allow for a finer gradation of factors than is found in previous BEV copula research. This research has shown that NPs with determiners strongly favor both contraction and deletion rules, while NPs without determiners show no measurable impact on either rule. It is further demonstrated that, in the case of determiners, the variation must be attributed to grammatical forces. The adjective and locative categories, which were previously analyzed as a single constraint, are also separated and examined individually. Structural parallels to Jamaican Creole English emerged, lending strong support to Pasold's recent stages for the development of present tense "be" deletion in Black English, as well as reinforcing the Creole origin hypothesis. Finally, this analysis further substantiates the diachronic potential of the Cedergren/Sankoff program and demonstrates that variable rules can effectively identify cases of linguistic stability. (Author/AMH)
A RE-EXAMINATION OF THE BLACK ENGLISH COPULA

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TABLE OF CONTENTS

0.0 Abstract ................................................................. 1
1.0 Introduction ............................................................. 1
  1.1 Linguistic Variation and Linguistic Theory .................. 2
  1.2 Field Methods ...................................................... 4
2.0 The BEV Copula: A Brief Review of Previous Research ...... 5
3.0 The Present Analysis ................................................ 7
  3.1 The Sample .......................................................... 7
4.0 Analytic Procedure .................................................. 9
5.0 Comparable Calculations ........................................... 9
6.0 Phonological Constraints .......................................... 14
7.0 The Implications of Extreme Weightings ....................... 16
8.0 The Grammatical Constraints ..................................... 20
  8.1 Preceding Grammatical Constraints ......................... 21
  8.2 Following Grammatical Constraints ......................... 21
    8.21 Unchanged Factors ........................................... 21
    8.22 The Subdivision of Following _NP ......................... 22
    8.23 Further Confirmation of the Independence of
        Phonological and Grammatical Conditioning ............ 23
  8.3 The Separation of Locatives and Adjectives ................ 24
9.0 Some Historical Implications .................................... 26
10.0 Conclusion ........................................................... 29
Footnotes ................................................................. 32
Bibliography ............................................................. 34

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A RE-EXAMINATION OF THE BLACK ENGLISH COPULA*

John Baugh

0.0 ABSTRACT

A carefully gathered colloquial corpus of BEV data is re-examined with exclusive attention to the "is" form of the copula. The investigation uses the non-applications multiplicative model of the Cedergren/Sankoff computer program for multivariant linguistic analyses. Several additional factors, some of which are new to this field of analysis, are analyzed. All of these factors, those that had been examined previously as well as the new factors introduced, are assessed independently, and the fit of rule prediction with observation is so close as to place considerable confidence in the assumption of phonological and grammatical independence.

These analytic techniques allow for a finer gradation of factors than is found in previous BEV copula research; thus, the following grammatical environments can be subdivided: the _NP is separated into two factors, 1) _NP and 2) determiner _NP_. By dividing the _NP_ constraints in this manner, it can be shown that NP's with determiners strongly favor both rules (contraction and deletion), while NP's without determiners show no measurable impact on either rule. It is further demonstrated that, in the case of determiners, the variation must be attributed to grammatical forces.

The adjective and locative categories, which were previously analyzed as a single constraint, are also separated and examined individually. In isolating these constraints in the synchronic re-analysis, structural parallels to Jamaican Creole English emerged, thus lending strong support to Fasold's recent stages for the development of present tense be deletion in Black English, as well as reinforcing the Creole origin hypothesis.

Finally, but possibly most importantly, this analysis further substantiates the diastratic potential of the Cedergren/Sankoff computer program and demonstrates that variable rules can effectively identify cases of linguistic stability.

1.0 INTRODUCTION

All facets of Afro-American behavioral research have obvious social implications. Undoubtedly the catalytic impact of the civil rights movement has influenced this social orientation. In the case of linguistics, however, some of the most significant theoretical advances of our time can be linked directly with black English vernacular (BEV) research. In spite of the fact that scholars have typically approached BEV in a delicate and diplomatic manner, controversies rage at both professional and lay levels with regard to the viability and legitimacy of BEV research. This is not surprising, because BEV is a stigmatized dialect and as such represents a highly personal and consequently an emotional topic. Though there are strong social concerns, and in some instances social consequences, involved in BEV analyses, affiliated linguistic issues also continually crop up. As a result we are forced to review the limitations, appropriateness, and social applicability of contemporary introspective linguistic theories. The present discussion, although rooted in a socially important topic, will stress linguistic concerns. This is not to suggest that the social aspects of BEV are being dismissed as unimportant, merely that they are not of primary concern here.

The present analysis re-examines the nature of copula variation in BEV and is cast in the tradition of the earlier copula research by Labov (Lg. 1969) and Wolfram (Lg. 1974). This analysis differs from previous examinations, however, in that more constraints have been introduced and the Cedergren/Sankoff computer program for multivariant analysis has been employed.

The data are from the Cobras, an adolescent peer group that was interviewed by John Lewis (K) as part of Labov's earlier BEV research. Having conducted field work of my own in a Los Angeles BEV community, I am aware of the stifling effect that the interview can have on the vernacular corpus. After reviewing Lewis' interview, however, I feel that the authenticity of the data is clear. At this point let it suffice to say that Lewis showed an acute ethnosensitivity in all of the interviews that he gathered. Although these data are synchronic, the present analysis reveals some diachronic implications as well. To my knowledge, this investigation represents one of the first times that multivariant analysis has been used with regard to BEV for historical purposes.
1.1 LINGUISTIC VARIATION AND LINGUISTIC THEORY

When the variable rule was first introduced (Labov, 1969), the full potential of this work for linguistic purposes could not be known. That potential has been gradually maturing as seen in the works of Trudgill (1971), G. Sankoff (1974), Cedergren and Sankoff (1974), Wolfram (1974), Lavendera (1975), and others. In a sense one might view variable analysis as traditional in linguistic research; after all, what could be more natural or traditional than entering the speech community, gathering a corpus, reviewing the corpus for paradigms, and reporting the nature of linguistic systematicity wherever it is found? In spite of this traditional orientation, influential linguists have stressed the theoretical restrictions imposed by non-ideal corpora. As a result, systematic variation--henceforth variation--has typically been viewed as free variation. In this instance it will be most beneficial to review affiliated theoretical and methodological concerns as they relate to BEV.

The research on BEV differs from the more formal research in linguistics because the latter analysis is usually inductive. Depending on one's theoretical perspective, this can be seen as a blessing or a curse. Whereas the evolution of formal linguistic research has resulted in a condition where many scholars turn to themselves as informants, there are few, if any, trained linguists whose intuitions about BEV are reliable for descriptive purposes. Another difficult choice must be made. Should we strive to train speakers of non-standard English to become linguists so that they can then introspect about their language, or should we strive to enhance our empirical methodologies? Unquestionably, the only feasible alternative available to BEV is to continue with the inductive tradition. In training non-standard speakers to become introspective linguists we would inevitably bombard their native intuitions with preconceptions to the point where the validity of these intuitions would be questionable.

What, then, does this have to do with linguistic theory? Quite simply, when we look at advances in linguistics, we see that the methodologies employed in introspective research are not generally applicable in the first approach to a language. In turn, the scholar who is interested in BEV and in related social concerns finds that contemporary methodologies and theories are often not suited to the task. This is not a new point by any means; Hymes has repeatedly indicated that we must take ethnographic considerations into account when conducting linguistic investigations, simply because ethnographic factors directly affect the language (cf. Hymes, 1962).

Returning to the special problems confronting BEV, then, there is an obvious need to enhance inductive methodologies. One could argue that these empirical methods have been in existence for many years, but in the case of BEV there seems to be a sense of urgency; a desire to rectify methodological and theoretical inadequacies does not lead immediately to rapid revision and reassessment. Nevertheless, significant strides are being made on several linguistic fronts and can now be applied or reapplied as necessary. At this point in linguistic evolution, that is, with the maturation of variable research, it is safe to say that the incorporation of variable phenomena is a requisite for thorough descriptive purposes. And the greatest value lies in identifying the most significant constraints on these phenomena. A related concern must focus on what is meant by the term "black English." In this instance, for the sake of brevity, black English is used to refer to the vernacular dialect, namely, that dialect which is native to most working-class black Americans and which reflects the usage of "some or all of the features which are distinctive" (in the colloquial dialects of these black Americans).

If we refine the accuracy of variable rules in the linguistic realm, the structural relations between standard English (SE) and BEV will become clearer. In turn, such findings will be very important on educational issues such as bi-dialectalism and linguistic/dialectal interference. Furthermore, the common concerns associated with English research in general must be considered. Given that BEV is structurally similar to SE, it stands as an important point of structural contrast and as such provides an excellent basis for comparing aspects of language change, language acquisition, and concepts of competence, both "linguistic" and "communicative" (cf. Hymes, 1974). At present linguistics is able to address these highly emotional topics with a high degree of objectivity. When valid linguistic correspondences or differences can be revealed, we can hope to approach social and educational concerns with a higher level of accountability. I am suggesting that wherever systematic linguistic relationships can be identified, no matter how large or how small, those relationships should ultimately be addressed. To the extent that a given linguistic phenomenon can not be
examined or substantiated at the level of the informants within a speech community, one should question the legitimacy of the description.

The final point that I would like to make with regard to linguistic theory and variable linguistic phenomena is a personal one and closely related to BEV concerns generally. Many scholars who have little or no formal linguistic training have used the non-standard speech of Afro-Americans as an indicator of communicative deprivation, cognitive limitation, and the like (cf. Bereiter and Englemann, 1966). Although this is fallacious from a linguistic perspective, the nature of contemporary introspective linguistic methodology is coincidentally such that it implicitly supports the prescriptive tradition that assumes BEV to be an "inferior" dialect. I am not advocating, as a moral obligation, that we enhance quantitative methods; rather it would seem that BEV and many other stigmatized dialects throughout the world cannot be accurately described for social, educational, or other purposes until the descriptive limitations of introspective research are clearly exposed.

1.2 FIELD METHODS

Having confirmed that there is a definite need to re-establish strong contacts in the speech community, it is equally important to recognize that the task of the field worker, especially the urban field worker, is difficult and often precarious, and requires an intimate ethnosensitivity to the speech community and to one's informants. This may seem to be an added burden, but in those instances where inductive evidence is the only legitimate source of data, social deterrents are unavoidable.

Scanning the prominent BEV literature over the past decade, one is struck by the fact that much of the descriptive emphasis is focused on younger members of the community, usually gathered by strangers (i.e., outsiders to the community) in non-native contexts. Efforts have been made to justify these limited procedures, because--for descriptive purposes--children tend to be less formal than adults. Consequently, the vernacular corpora of children have been viewed as representing the purest BEV forms. Such limitations have been discussed before (cf. Wolfram, 1974; Kernan, 1971) and need not be further discussed here. However, the role of the BEV field worker needs to be reviewed more carefully.

The role of the field worker should be stressed if for no other reason than the accuracy of a final empirical analysis, but for BEV the significance of the field worker is critical. Ironically, there has been minimal concern--at least in the overwhelming majority of BEV research--with the importance of data gathering. It has been as if the desire to describe the language has taken precedence over the need to insure the accuracy of the corpus. Effective field work can--and must--be carried out on Black English at all social levels. But the gathering of the vernacular of the city streets is fundamental for an accurate view of social, historical and educational issues.

Most of the data have been gathered by John Lewis (K.C.), who is an excellent field worker for BEV. Lewis, a black man, has lived through many of the same experiences as the Cobras, and is therefore intimately familiar with native topics of interest; he was able to argue with informants without social difficulty. These special skills were particularly useful to the present corpus because the Cobras lived in a situation where the ability to handle oneself in verbal confrontations was highly prized. Thus, Lewis' own verbal skill clearly increased his effectiveness as a field worker. Throughout these data, two factors seemed to enhance Lewis' interviews: his intimate understanding of his informants' social perspectives, and his close contacts with the Cobras in a variety of social situations--not merely in the interview.

BEV has been plagued by shortcuts in the field and quiet dismissals of large blocks of informants for social reasons alone. Undeniably, the task of gathering BEV data is often difficult and this too is a social fact, but if I intend to address BEV in a traditionally sound manner, then we must enhance our field methods in general. Like KC, we must be able to take the time to gain the trust of several representative informants.

2.0 THE BEV COPULA: A BRIEF REVIEW OF PREVIOUS RESEARCH

Before moving on to the current analysis, let us review the implications of previous copula research. Although a variety of works on the copula have emerged in broader contexts, the present remarks are intended primarily with BEV and West Indian Creole (WIC) examinations in mind. In early statements of the creole position, Bailey (1965) and Stewart (1969) proposed that BEV had a zero copula. Although arguments for a zero copula, with emphasis on zero, have since been seen as greatly overstated, Bailey and Stewart established the importance of looking closely at the African and WIC roots of contemporary BEV. Examining black/white linguistic relationships with...
emphasis on the creolist position, Stewart reviewed the grammatical relationship between SE and white non-standard dialects in opposition to BEV and gullah, and found that the auxiliary had unique and similar markings in both dialects. In addition, examining another distinctive BEV feature (be), he questioned the possibility of European (Irish) influence:

But if that is the origin of the Negro-dialect use of be (i.e., borrowed by Negroes, let us say, from Irish immigrants to North America), then why is it now so widely spread among Negroes but so absent from the still somewhat Irish-sounding speech of many direct descendants of the Irish immigrants? (69:16)

For the purpose of the present discussion, concern necessarily concentrates on the historical influences which affect copula variation. But dialect borrowing need not be restricted to a single contact group. The Irish presence as indentured laborers and their subsequent role as slave overseers could easily explain the necessary dialectal contact. Nevertheless, the creolist position appears to be quite strong as well. It is quite possible and even likely that contemporary BEV dialects contain linguistic influences from both the Irish and the West Indians (cf. Traugott, 1972). These historical issues, while relevant to the current discussion, will be presented in greater detail in Section 9.0.

Labov (1969) found variation in the copula to be the result of a series of grammatical and phonological rules that were parallel to those of colloquial deletion in SE. Deletion in BEV was possible only in environments where contraction was possible in SE. Furthermore, the variable constraints on the contraction and deletion rules were parallel except for the phonological effects which opposed the deletion of a vowel to the deletion of a consonant. Labov's initial analysis has been confirmed and reduplicated in several studies (cf. Legum, et al., 1971; Wolfram, 1969; Kernan, 1971). Nevertheless, these examinations, while reinforcing the synchronic explanation of the copula, have not resolved the historical questions in any substantive way. Carrying the research further by building on the work of Labov, as well as aspects of his own research in Detroit, Wolfram (1974) examined the nature of copula variation in a comparison of white and black Southern speech.

In spite of our synchronic understanding of copula variation, numerous historical questions still remain unanswered. Recognizing the complexity of the diachronic issues which surround this particular problem, Fasold (1976) proposes an alternative historical solution that takes both the Creole and SE origins into account. Citing evidence from Botkin's narratives (1945) as a point for historical reference, with the contemporary works of Labov, Stewart, and his own discussion of the phenomena (1972), Fasold posits that the copula may have originally been omitted as a grammatical feature because of BEV's African and Creole origins, but that it was later transformed into a phonological rule. Furthermore, his argument suggests that the transition from initial grammatical constraints to more current phonological conditionings could have taken place with minimal changes in the surface forms. We will return to the Fasold's position shortly, but for the moment, let us say that his argument seems quite plausible given the strength of the arguments that have been presented from both sides of the diachronic debate.

3.0 THE PRESENT ANALYSIS

The Cobra data are excellent from a synchronic standpoint owing to the handling of the data and the Cobra's collective command of BEV, but significant strides have also been made beyond the realm of field procedures. It is, appropriately, the advanced analytic techniques that have been developed by Cedergren and Sankoff (1974) which now provide the necessary tools to look at these variable phenomena in more detail (cf. Labov, 1977; Griffin, Guy & Sag, 1973; Guy, 1974).

3.1 THE SAMPLE

These data were gathered in the mid-1960's. Since that time, some of the Cobras have ended up in jail or been killed or wounded in urban disputes. Most of the members are now in their mid to late twenties and, as far as I know, are still living in and around Harlem. I should also point out that KC did not record all of the twenty-six taped conversations that comprise the analyzed corpus. Some of the interviews were conducted by Clarence Robbins, and some of the group interviews were successfully conducted by combinations of black and white investigators. For the most part, however, it was KC and the Cobras.

During that period of time the primary concern of the members was the defense of their 'turf' against rival adversaries, most notably the 'Jets.' There came about a noteworthy philosophical change in the Cobras, however, and all of the members of the group began to strive to become more aware of their plight as Afro-Americans; consequently, they began to spout the rhetoric.
of black awareness and cultural taboos. These transitions in attitude caused the Cobras to question their outlook on society and several of the interviews contain the theme of 'the plight of Black America(ns).'

Five hundred seventy-eight tokens in all were located in these data (i.e., environments where we would anticipate the presence of a copula). The breakdown of the totals in relation to the following grammatical constraints appears below:

<table>
<thead>
<tr>
<th>TABLE 1A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROBABILITY OF RULE NON-APPLICATION; FEATURE WEIGHTS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contraction</th>
<th>Deletion</th>
</tr>
</thead>
<tbody>
<tr>
<td>_gon(na)</td>
<td>1.000</td>
</tr>
<tr>
<td>_Vb+ing</td>
<td>1.000</td>
</tr>
<tr>
<td>Loc.</td>
<td>1.000</td>
</tr>
<tr>
<td>Adj.</td>
<td>.116</td>
</tr>
<tr>
<td>_NP</td>
<td>0.000</td>
</tr>
<tr>
<td>Det._NP</td>
<td>1.000</td>
</tr>
<tr>
<td>Misc.</td>
<td>1.000</td>
</tr>
<tr>
<td>Chi Square</td>
<td>6.994</td>
</tr>
<tr>
<td>Non-question</td>
<td>0.000</td>
</tr>
<tr>
<td>Question</td>
<td>1.000</td>
</tr>
<tr>
<td>_NP</td>
<td>0.000</td>
</tr>
<tr>
<td>Pro_</td>
<td>.856</td>
</tr>
<tr>
<td>Cons.</td>
<td>0.000</td>
</tr>
<tr>
<td><em>Vowel</em></td>
<td>.408</td>
</tr>
<tr>
<td>Cons._</td>
<td>.522</td>
</tr>
<tr>
<td>Vowel_</td>
<td>0.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 1B</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE TOTALS FOR THE COBRAS: BASED ON FOLLOWING GRAMMATICAL CONSTRAINTS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>_gon(na)</th>
<th>verb+ing</th>
<th>Loc/adj</th>
<th>_NP</th>
<th>misc.</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>108</td>
<td>122</td>
<td>134</td>
<td>162</td>
<td>53</td>
<td>578</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>locative</th>
<th>adjective</th>
<th>_NP</th>
<th>_det.NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>86</td>
<td>126</td>
<td>36</td>
</tr>
</tbody>
</table>

4.0 THE ANALYTIC PROCEDURE

The first version of the Cedergren/Sankoff program for multivariate analyses was run on the Cobra data in two series of calculations: 1) calculations that measured the same constraints as Labov and Wolfram; 2) a series of calculations that introduced new and subdivided constraints. Since Labov's original analysis employed an additive model, and Wolfram's analysis concentrated on white informants, it was felt that the synchronic clarification of BEV copula variation would be enhanced at this time by employing the Cedergren/Sankoff program.

Once having conducted an initial series of calculations on the familiar constraints, it was necessary to repeat the calculations incorporating the following adaptations:

1) Question/non-Question

Each token was identified as either a question or non-question and was submitted under this new factor group.

2) Miscellaneous factor for following grammatical constraints

It was necessary to introduce a miscellaneous category for those instances where the arbitrary factors were insufficient. For the most part these were adverbs of manner.

3) The subdivision of _NP

Previously following _NP has been calculated as a single factor. The secondary calculations divide this factor into:

a) NP
b) _det.NP (i.e., a and the)

4) The separation of _Loc/Adj.

Heretofore, the analysis of _Loc/Adj. appeared as a single constraint owing to quantitative confines. The independence of the calculations that is provided by the Cedergren/Sankoff program, however, has allowed for the present separation of these features.

3.0 THE COMPARABLE CALCULATIONS

At first blush the need for a comparable series of calculations might seem dubious, and cumbersome, but it was felt that a parallel series of calculations would substantiate and/or clarify previous synchronic assessments and show whether the original relations were preserved in a multivariate analysis with extended (i.e., finely divided) constraints. Thus, the first series of calculations was purposely designed to mesh with the previous analyses of Wolfram and Labov, in that identical factors have been analyzed. Parenthetically, Cedergren and Sankoff developed their computer
methods—at least in part—by re-examining Labov’s 1969 data, and they found that their fit of prediction with observation reliably identified those environments which favored both contraction and deletion.

Table 2 shows that, as in Labov (1969), a preceding pronoun subject heavily favors contraction and somewhat less strongly favors deletion. The phonological effects do not show the reversal for contraction and deletion, but preceding vowels still tend to favor both rules. However, the differential effect on both rules will emerge as the analysis proceeds. The following phonological segment appears to have an increased effect, but this will diminish in later analyses as well (see Table 4). The significant revisions in this analysis of the original examination concentrate on the following grammatical constraints and will therefore be of primary concern here.

**TABLE 2**

**FEATURE WEIGHTS FOR THE COMPARABLE SERIES**

**OF CALCULATIONS FOR ALL MEASURED CONSTRAINTS**

<table>
<thead>
<tr>
<th></th>
<th>Contraction</th>
<th>Deletion</th>
</tr>
</thead>
<tbody>
<tr>
<td>-K</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>-V</td>
<td>0.396</td>
<td>0.239</td>
</tr>
<tr>
<td>K-V</td>
<td>0.465</td>
<td>0.525</td>
</tr>
<tr>
<td>Y-V</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>NP</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Pro</td>
<td>0.919</td>
<td>0.622</td>
</tr>
<tr>
<td>OJP</td>
<td>1.000</td>
<td>0.567</td>
</tr>
<tr>
<td>Vb-ing</td>
<td>1.000</td>
<td>0.375</td>
</tr>
<tr>
<td>PA/Loc</td>
<td>0.336</td>
<td>0.668</td>
</tr>
<tr>
<td>NP</td>
<td>0.430</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The percentages of full, contracted, and deleted forms of is according to the preceding and following grammatical environments (from Labov’s original research for the Cobras) appear below in Figure 1.

**FIGURE 1**

PERCENTAGE OF FULL, CONTRACTED, AND DELETED FORMS OF is ACCORDING TO PRECEDING AND FOLLOWING ENVIRONMENTS FOR THE COBRAS

The current contours, based on feature weights from the non-applications probability model, appear below (Labov’s illustrated contours are separated with regard to preceding grammatical constraints, while the present analysis does not need to make this kind of separation).
With the exception of the PA/Loc, the orderings are substantiated with regard to the relative impact of following grammatical constraints on the contraction and deletion rules. Wolfram's analysis of white Southern speakers reflects similar patterns as well:

The patterning of is-deletion, although restricted in terms of the proportion of informants who realize the rule and the frequency with which it occurs for these informants, does appear to be a process found among some Southern dialects. From a qualitative viewpoint, it appears to be a process quite similar to the one observed for VBE. (Wolfram, 74:514)

Before shifting the focus to the secondary series of calculations we might ask ourselves about the structural similarities and what they mean. First of all, given the increased potential and analytic accountability of the Cedergren/Snakhoff program, we see that, by and large, previous assessments were legitimate in their rule orderings. More than that, the present confirmation now allows us to look at the nature of each constraint more closely. Thus, in addition to the factor revisions which were presented in Section 4.0, the remaining constraints are the same (see Figure 4 below).
6.0 THE PHONOLOGICAL CONSTRAINTS

Beginning with the preceding phonological constraints, we find the following (see Table 3 below):

It is important to recall that -K factors appear less frequently than do -V constraints. Nevertheless, the comparative findings clearly indicate consistencies with previous implications for the preceding phonological conditionings: namely, that -V favors contraction over deletion, while the reverse is true for -K. The difference that is illustrated here, however, would indicate that although the conditionings are similar with respect to previous research, the phonological constraints are not the strongest with regard to either rule. At the same time the weighting for -V (.408 contraction) is the strongest phonological constraint by far, and this accentuates the comparability with previous assessments.

The following phonological factors, in spite of the vocalic appearance as a "slight" constraint (see Figure 6 below) are significant because they confirm the preference of a CVC pattern (cf. Labov, et al. 1968; Labov, 1969). The maintenance of a CVC pattern is further supported when we consider that much of the evidence of pidgins and creoles has suggested that CVC contours are generally present in contact vernaculars (cf. Hall, 1966). From the standpoint of a more general picture of the phonological conditioning for BEV, consider the case as stated by Labov (see Table 3): "In any case, the way in which contraction and deletion are opposed with respect to the preceding vowel clearly demonstrates that both contraction and deletion are phonological processes..." (Labov 72:106). The present research, while still upholding this position, does not emphasize phonological conditioning.
in a primary sense. The point will be examined further with the independence of phonological and grammatical constraints is reviewed in Section 8.23, but for the moment it is significant to note that the phonological conditioning is maintained although it does not receive primary emphasis.

7.0 THE IMPLICATION OF EXTREME WEIGHTINGS

In an effort to anticipate further discussion of the analytic efficiency of the Cedergren/Sankoff program, it will be helpful at this time to look at some of the factors which report extreme weightings. Interestingly enough, two of the new categories, 1) the question/non-question factor group, and 2) the miscellaneous factor for following grammatical elements, behave in such a manner. The situation with regard to questions is fairly complex, owing to the phonological, morphological, and syntactic issues that relate to the general class of questions proper and the issues that relate specifically to those questions occurring in copula constructions. From the standpoint of phonology, final is clusters have been shown to have a unique effect on rule application; it’s, that’s and what’s have been omitted in this type of analysis—as is the case here (cf. Labov, 1969; Wolfram, 1974).

In light of the importance of what in the broader context of questions, however, the phonological conditioning that is responsible for what omission necessarily limits the extent to which the impact of questions can accurately be assessed with regard to contraction and deletion. Also, considering the exclusive focus on is here, the scope of the question factor is further restricted.

Consider the intersection between the present analysis and the broader class of questions as illustrated in Figure 5.10 Plane (A) represents an intersecting grid of linguistic variables that might be taken into account in copula research. Within this hypothetical plane we have examined those questions that occur with is, the shaded area. At the outset the identification of [wh__is#…(#)] structures would seem to be desirable. However, the concise impact that questions have on contraction and deletion requires an accurate understanding of question formation, which brings us to plane (B). Plane (B) depicts the general class of questions of which [wh__is#…(#)] is a proper subset (again identified by the shaded area). By connecting the shaded areas in planes (A) and (B), we identify that subset of questions which have been accounted for in the present research.

Keeping the phonological omission of what in mind, we can turn to the grammatical restrictions that occur in [wh__is#…(#)] constructions. Figure 6 consists of sub-planes (A) and (B). (A) represents the following grammatical constraints that have been analyzed here in connection with is, while (B) consists of the [wh__is#…(#)] sentences that appear in the shaded area of plane (B). The broken lines correspond to the most favored [wh__is#…(#)] sentences: those that occur with a following NP. The explanation for this lies in the fact that the subject is not marked in the wh__ form. The noteworthy exception, represented by the solid lines, is restricted to who, where acceptable sentences can be made with all of the forms in [A]. Additional morphological considerations might narrow the picture even further: for example, _en and _ere are bound to wh__ and th__ exclusively (cf. Harris, 1951). However, further factor constriction is not necessary to clarify the point at hand.
FIGURE 5
THE QUESTION ANALYSIS

PLANE (A)
The present analysis

PLANE (B)
Question formation

FIGURE 6
GRAMMATICAL RESTRICTIONS ON QUESTION FORMATION

PLANE (A)
Following grammatical factors

PLANE (B)
[Wh_][dis][#(#)] sentences
In light of the extreme weightings that appear in Table 4, and the phonological, morphological, and grammatical issues that have been presented, it would be extremely difficult to draw definitive conclusions about questions and/or their affiliated impact on variable deletion of the copula. A similar, but opposing problem emerges with regard to the miscellaneous factor group (again, see Table 4). Because of its 'catchall' status, the findings in this instance are far too general for descriptive purposes, which explains the extreme weightings.

**TABLE 4**

**EXAMPLES OF FACTORS WHICH REPORT EXTREME WEIGHTINGS FOR BOTH CONTRACTION AND DELETION**

<table>
<thead>
<tr>
<th>Feature Weights</th>
<th>The question/non-question factor group</th>
<th>Miscellaneous Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>non-Question</td>
<td>1.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Although the implications of these results would appear to be obvious, owing to their extreme nature, we should concentrate on the impact of these findings on the overall analysis; additional advantages of the Cedergren/Sankoff program are revealed.

In the past, analysts were confined with regard to the depth and breadth of factors which could be analysed because each constraint was obligatorily accounted for in the final analysis. At the present time the problem of factor selection has loosened up somewhat because of the independence of calculations. It is important to stress, however, that the extreme weighting reported here—although minimally illuminating in retrospect—seemed significant at the outset. More than that, and more importantly, the introduction of these factors has not interfered with the other constraints in the final analysis.

8.0 THE GRAMMATICAL CONSTRAINTS

The grammatical arguments surrounding copula variation are by far the most interesting. In the past, it has primarily been the grammatical constraints, and, more specifically, the explanations surrounding various grammatical conditionings, that have lent viable support to both the Creole and English diachronic perspectives. Although the historical alternatives are not of primary importance at this point in the discussion, it is significant to note that the grammatical issues cover a tremendously wide range of diachronic and synchronic territory. This is clearly the case because scholars have been able to construct feasible, yet different, explanations from similar synchronic evidence. With the complexity of grammatical features in mind, the nature of their conditionings follows.

8.1 PRECEDING GRAMMATICAL CONSTRAINTS

Considering the precedent implications of Wolfram and Labov, it is important to note that a preceding _pro_ favors both rules, with contraction receiving primary emphasis. This is not surprising given the discussion surrounding _pro_:

... it is plain that contraction is heavily favored when the subject is a pronoun. But the effect is much stronger than for other noun phrases ending in vowels. In the case of deletion, it can be seen that the rule operates much more often when a pronoun precedes... (Labov 72:106-107)

The significant finding here, when compared with previous analyses, is the lessened impact of preceding _NP_. Whereas Wolfram and Labov examined the nature of following grammatical conditionings based on separate analyses of the preceding factors, the present analysis has the advantage of being able to identify the overall conditioning. We can therefore see the relative impact of preceding grammatical elements without sacrificing other facets of the analysis.

**TABLE 5**

**IMPACT OF PRECEDING NP_ OR _Pro_ ON CONTRACTION AND DELETION**

<table>
<thead>
<tr>
<th>Feature Weights</th>
<th>NP_</th>
<th><em>Pro</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.000</td>
<td>.855</td>
</tr>
<tr>
<td>D</td>
<td>0.000</td>
<td>.714</td>
</tr>
</tbody>
</table>

8.2 FOLLOWING GRAMMATICAL CONSTRAINTS

8.21 Unchange Factors

The only factors to remain the same in the following grammatical factor group are: 1) _con(na) and 2) _v-ing. Both of these factors reflect the same conditioning and rules orderings that have been identified in the past.
_Gon(na) strongly favors contraction and has a significant effect on deletion. _Vb+ing also favors contraction with a somewhat lesser effect on deletion, as in previous analysis.

<table>
<thead>
<tr>
<th>Table 6</th>
</tr>
</thead>
</table>

**EFFECT OF FOLLOWING _gon(na) AND _Vb+ing ON CONTRACTION AND DELETION**

<table>
<thead>
<tr>
<th>Feature Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>_gon(na) _Vb+ing</td>
</tr>
<tr>
<td>C 1.000 1.000</td>
</tr>
<tr>
<td>D .801 .402</td>
</tr>
</tbody>
</table>

Stated simply, in the final analysis the relation of _gon(na) and _Vb+ing to other constraints remains unchanged when all analyses are considered.

8.22 The Subdivision of Following _NP

With the complementary factors indicating similar rule orderings, we can now review the implications of the adjusted factors beginning with the following _NP. Previous analyses have examined _NP as a single constraint. The present analysis, however, has subdivided _NP into two factors.

**Figure 7**

**LABOV/WOLFRAM**

**THE PRESENT ANALYSIS**

\[ \rightarrow \quad _{'a'} \ NP \]

\[ \rightarrow \quad _{det.\#NP} \rightarrow \quad _{'the'} \ NP \]

\[ _{NP} \rightarrow \]  

Thus, the implications that have been posited with regard to a following _NP can now be reviewed more closely. Consider the rule conditionings that have been suggested thus far (see Figures 1, 2, and 3). As these findings stand, their impact would suggest _NP as the least favored environment—specifically within the realm of following grammatical factors—for the application of either rule. Upon division of the factor, however, another picture emerges.

### Table 7

**EFFECT OF A FOLLOWING _NP OR _det.\#NP ON CONTRACTION AND DELETION**

<table>
<thead>
<tr>
<th>Feature Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>_NP _det.#NP</td>
</tr>
<tr>
<td>C 0.000 1.000</td>
</tr>
<tr>
<td>D 0.000 .741</td>
</tr>
</tbody>
</table>

We can see, therefore, that it is necessary to subdivide _NP in the preceding manner because the true nature of the conditioning has been camouflaged until now. The significance of this separation is further amplified because _det.\#NP now emerges as a primary factor in the application of both rules. The other side of the coin finds _NP as a low level constraint; in fact, _NP is the least favored following grammatical factor.

8.23 Further Confirmation of the Independence of Phonological and Grammatical Conditioning

At this stage of the discussion, it is beneficial to look back at some of the concerns that have been raised with regard to the independence of phonological and grammatical constraints (cf. Fraser, 1972). In this regard I have emphasized the independence of calculations, but for the moment the implications of independence for the actual constraints will be reviewed. In spite of the importance of the various historical options which have been aired, there still remains some confusion—and some justifiable concern—as to the independence of analyzed constraints. We find grammatical criteria and phonological criteria, and numerous questions as to their mutual dependence or independence. The subdivision of our _NP constraint, however, clearly emphasizes the independence of previously discussed phonological factors, namely, the preference of CVC sequences (Section 6.0). The phonological conditioning is clear, but, more than that, the present analysis confirms and consequently reinforces precedented phonological findings. Turning our attention to grammatical concerns, then, we are again faced with the prospect of an either/or hypothesis: grammar or phonology. The re-weighting of the subdivided _NP constraints, however, would suggest that an either/or approach is insufficient, consider the phonological relations as illustrated below:

**Figure 8**

\[ _{'a'} \ NP \quad \text{OBLIGATORY VOCALIC STATUS} \]

\[ _{det.\#NP} \rightarrow _{'the'} \ NP \quad \text{OBLIGATORY CONSONANTAL STATUS} \]
Given the rule favoring strength of the _det_.WNP factors (i.e., contraction [1.000], deletion [.741]), we clearly see the overriding impact of the grammatical conditioning. This being the case, the obvious questions shift to what might be perceived as a conflict between the preference for CVC contours and the grammatical conditioning. The point that is being emphasized here is that no such conflict exists; rather, these finding suggest that both grammatical and phonological conditionings are operating simultaneously. Undoubtedly, this simultaneity is selectively conditioned and therefore should not be generalized. Thus, the present analysis, while providing additional insights into the synchronic nature of copula variation, has also confirmed that phonological conditionings and grammatical conditionings are operating simultaneously. It will be necessary to return to this point with regard to Fasold's historical discussion, but for the moment it is significant to note the independence of grammar and phonology—that is, the reconfirmation of their independence and, more importantly, the fact that both condition rule application in selective ways.

### 8.3 The Separation of Locatives and Adjectives

The final grammatical features that must be reviewed are the following locatives and adjectives. Heretofore, PA/Loc. has been measured as a single constraint. The limitation in the past was simply a quantitative barrier. "Because the total number of forms is considerably reduced for each group (even when single and group styles are combined), the following predicate adjectives and locative are given together." (Labov 72:92) Wolfram also measured locatives and adjectives as a single constraint, stating:

> Although there may be justification for categorizing this set on a different basis (e.g., considering adjectives as verbs, treating locatives as a separate category, etc.), it (i.e., the classification of factors) is considered here in the more traditional classification for the sake of comparability with previous studies (Wolfram 74:505).

Whereas previous samples may have been considered too small, they are not so rare that their isolated conditionings cannot be accurately assessed at this time. In the case of locatives, the conditioning is similar to the combined conditionings that have been reported in the past (see Table 8 below). The contraction rule is strong and is also favored over deletion. In addition, the ordering of these rules would strongly suggest an underlying copula, at least in this environment. With adjectives, an unexpected result appears. The rule orderings are emphatically reversed. Reflecting momentarily on the implications of the combined constraints, we see that the true nature of the conditioning was previously shrouded. It is of course important to indicate that previous efforts combined these factors out of procedural necessity; however, with the separation now revealed, we must turn to the more complicated questions of how and why.

**Table 8**

<table>
<thead>
<tr>
<th>Feature Weights</th>
<th>Locative</th>
<th>Adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.000</td>
<td>.116</td>
</tr>
<tr>
<td>D</td>
<td>.682</td>
<td>1.000</td>
</tr>
</tbody>
</table>

For the sake of discussion, let us assume for the moment that the unexpected did not occur: that locatives and adjectives reported similar weightings and, by extension, indicated rule orderings as suggested in previous analyses. The situation would merely be one of synchronic clarification. Since the rules are emphatically reversed, the historical question of an underlying copula in BEV becomes more complicated and, by extension, requires further diachronic perusal. Now that adjective have been shown to favor deletion in a rather convincing manner (D = 1.000; C = .116), the crossover pattern of the rule orderings suggests dialectal influence from at least two sources (see Figure 3). The implication for adjectives is that deletion must have taken place before contraction (insertion?).

Based on the illustrated examples, we can see that previous assessments suggest consistent rule orderings with regard to all of the following grammatical constraints (Figures 1 and 3). Moreover, the historical implications that such an ordering would lead one to the conclusion that an underlying copula was a general feature of BEV at an earlier point in history. However, with adjectives favoring deletion over contraction, it is quite possible that a zero copula did exist in proto forms. This possibility is further reinforced by the relatively slight influence that adjectives have on the contraction rule. This does not imply that we should posit a zero copula in all environments any more than that we should assume an underlying copula was automatically present. Rather, the new locative and adjectival findings...
Based on a comparison of two Creole varieties, Holm (1975) examined the grammatical hierarchy of following grammatical constraints. Concentrating on Jamaican (Le Page and De Camp, 1960) and Turner's description of Gullah (1949), Holm found that the syntactic environments where copula deletion were favored differed from the orderings initially identified by Labov. The analysis is illuminating and the constraint orderings that he had identified appear below:

<table>
<thead>
<tr>
<th>Jamaican</th>
<th>Gullah</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adj.</td>
<td>66</td>
</tr>
<tr>
<td>gonna</td>
<td>32</td>
</tr>
<tr>
<td>NP</td>
<td>22</td>
</tr>
<tr>
<td>v</td>
<td>17</td>
</tr>
<tr>
<td>Loc.</td>
<td>17</td>
</tr>
</tbody>
</table>

Holm's research is quite similar to the present analysis because of his quantitative methodology. But more immediately relevant to my purpose is Holm's demonstration of the importance of separating locatives and adjectives. The orderings which Holm has identified would thus tend to confirm the altered grammatical conditionings that have been identified in the present analysis.

In an effort to further resolve the issue, let us turn our attention to Bailey's (1966) description of Jamaican Creole English (JCE). Bailey has identified the nature of locatives and adjectives in JCE as follows:

a) Locatives: "the locating verb (V) de, "be"... must be followed by a locative complement or modifier." (Emphasis my own)
   1) im de a yad She is at home
   2) jan no de ya nou John is not here now.
   3) wan trii de batamsaid me hous There is a tree below my house.

b) Adjectives: The adjectives in JCE operate similarly to those used by the Cobras, that is, the be form is absent.
   1) di kaafi kuol The coffee is cold.
   2) di tficha gud The teachers is good.
   3) di bos faas The bus is fast.

(Bailey 66:43, 64)
If we keep in mind the inverse relationship observed in Table 9 and how the present assessment differs from the implicit historical perspective presented by Labov (see Figure 1), the diachronic aspect of this variation becomes clearer. In the case of locatives, the _de+loc. constructions that Bailey has outlined in JCE are structurally similar to the overriding number of full and contracted forms that have been used by the Cobras. One would necessarily attribute this to an underlying copula, as seen in JCE. Thus, this particular environment unquestionably reflects structural similarities to JCE (see the relationships which are presented in Figure 9):

FIGURE 9
THE IMPACT OF FOLLOWING GRAMMATICAL CONSTRAINTS ON DELETION IN JAMICA, GULLAH, & HARLEM (THE COBRAS)

[JSee Table 9]

The argument is further strengthened when applied to adjectives because with the impact of the deletion rule now revealed, related historical concerns must come to the fore. This being the case, the adjectival evidence from JCE, which is structurally similar to the corresponding evidence from the Cobras, lends additional support to the position that there was no copula before adjectives. This also reinforces the Creole origin hypothesis. When we consider the overall implications of the preceding investigations, the quantitative confirmation which emerges from the present analysis establishes the Creole ancestry of contemporary BEV beyond any doubt.

At this point, however, it is wise to look at the historical implications a little more closely. Although it is necessary to recognize that Creole origins have been posited before, it is equally important to recognize that many of these positions were presented prior to concise verification of the historical, empirical, or quantitative facts. The present confirmation, then, stresses the need for this type of validation, especially given the social importance of these historical questions and the availability of new analytic techniques.

10.0 CONCLUSION

The historical perspective that is present here can be simply stated in spite of the rather elaborate steps that have brought us to this point. It appears that the synchronic status of BEV copula variation has been influenced by West Indian Creoles, as well as by SE. Based on the evidence presented, this seems to be the only feasible alternative. Moreover, when all of the structural and phonological facts are weighed, arguments for African versus European origins must again be seen as overly simplistic.
There are unavoidable limitations to the diachronic scope of research on stigmatized languages. This is simply because many of today's stigmatized dialects and languages were the languages of the poor and uneducated classes of yesteryear. The present analysis and discussion attempts to take a step forward with the recognition that new diachronic tools must continually be forged for stigmatized languages. We have justifiably been distracted by the linguistic machinery that seems to operate so quickly, cleanly, and efficiently in more prestigious languages. The question is, are we to let the efficiency of prestigious linguistics dictate the focus, direction, and overall development of these new and special tools?

The fact that BEV should not be viewed in a mono-genetic fashion is not surprising considering the wide range of embryonic explanations which have been debated at such length. The difference that I wish to stress focuses on accountability. Based on the needs of linguistics, and for that matter those of all the behavioral sciences, as well as the needs of those who are the object of our scientific investigations, we must continue to strive to maximize the level of accountability before we neglect available data from real world contexts.

It is easy to see how linguists, influenced by de Saussure's langue-parole distinction, have in large part tried to avoid the descriptive limitations imposed by inductive corpora. However, we must focus our efforts on thorough linguistic descriptions. As long as scholars are willing to dismiss empirical evidence under the banner of 'performance' our descriptions will never reflect the complete structure of 'langue.' As long as systematic variation exists, and as long as these phenomena are beyond the introspective grasp of the analyst, we must be willing to re-establish the empirical traditions that will expose such phenomena; otherwise, our descriptions cannot possibly represent 'langue' in an actual sense.

In the case of BEV, however, the situation is even more complex. The social inequities and problems that were responsible for the initial hubbub about Afro-Americans research, or lack of it, are still with us today. In fact these concerns are more vital than ever because many Afro-Americans still suffer from poverty and, by extension, from its social and cultural side effects. The unemployment figures from any urban city in the United States will substantiate my point. Those of us who are concerned with the social consequences of linguistic research are confronted with several decisions.

Even when confined to the realm of obligatory empirical research, these decisions cannot be taken lightly. The need to enhance methodologies and theories is clearly desirable whenever and wherever possible, especially considering the subjective tradition within the field.

When one considers the extraneous factors that can influence the impetus and direction of future BEV research, it is important to recognize the unique position in which linguistics finds itself. In the case of BEV, we should make every effort to capitalize on strict linguistic principles to insure that our socially relevant concerns are not distorted by preconceived notions. We have a rare opportunity to make precise statements about an aspect of human behavior. Furthermore, we can hope that such information will benefit native members of the speech community.
FOOTNOTES

1. I have expanded Fasold's definition in an effort to incorporate an implicit interactional dimension into the definition. It is, after all, the interactional component that Bloomfield has identified as instrumental in defining the speech community (cf. Bloomfield 33:42.)

2. This does not imply that we should stay at the level of analyzing purely linguistic constraints. Rather, I suggest that we take full advantage of an accurate linguistic statement prior to incorporating constraints that cannot be defined with the same accuracy as linguistic phenomena.

3. Again, we must appreciate that the social atmosphere was such that their remarks came at a time when the 'awareness level,' if you will, of many blacks was such that African origins were not only palatable but preferred.

4. A series of other works centering on the copula has also been examined in broader linguistic and social contexts, for example, Day's work on Hawaiian Creole (1972) and Ferguson's multilingual comparative survey on the absence of the copula (1971.)

5. Clarence Robbins worked closely with John Lewis in gathering BEV data. Robbins was also one of the co-author's of Labov's 3288 report.

6. The Jets were also studied in Labov's original work and a detailed description of the peer group can be found in Labov's 3288 report...

7. I am using "black rhetoric" here because the Cobras were obviously imitating popular rhetorical styles and as a result would often contradict themselves on a variety of ideological points.

8. At the 1976 NAWE conference at Georgetown University, Pascale Rousseau presented advances in the computer program; the revised program is available for general use at this time. She and David Sankoff are most responsible for the many technical improvements in variable rule research.

9. Those who are familiar with previous analyses will immediately recognize that the new implications for the PA/Loc. reversal are not a trivial matter. The situation has changed, or rather, the assessment of the situation has changed, because of a complete analysis. Please recall that previous analyses for the Cobras did not account for all of the available data:

   ... the data presented here do not exhaust all the material which is available for the Jets and Cobras (emphasis my own)... (Labov 72:91)

The present analysis does exhaust the Cobra data, and the difference that has emerged results from the thorough analysis. It is important, therefore, that the difference illustrated in Figure 2 is not construed as a conflict with earlier research.

10. The question formation grid which appears in plane (B) is presented for illustrative purposes only, and in not intended to represent an exhaustive set of possible question constructions.

11. Traugott (1972:5) has discussed the limits of an either/or perspective with regard to the historical issues before. The new findings presented here tend to reinforce her position.
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