

# CONTINUITY VERSUS ENGLISH INFLUENCE IN THE WEST AFRICAN LEXICON OF GULLAH

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*Edited by*

†THOMAS B. KLEIN

MICHAEL ADAMS

*Georgia Southern University*

*Indiana University at Bloomington*

**ABSTRACT:** This article argues that we must revisit the African vocabulary of Gullah presented by Lorenzo Turner's 1949 *Africanisms in the Gullah Dialect* to uncover phonological patterns not discussed in the original source and to expand coverage to segmental, syllabic, and prosodic structure. Salikoko Mufwene has argued that English phonology dominates the West African personal names that comprise more than half of Turner's classic work, yet, as argued here, significant West African influences persist in Gullah, as well. Phonological patterns from Turner's West African material correspond to those of Gullah lexemes. Distribution of the palatal nasal, the absence of [ə] and [ʌ], and the inventory of syllable types occur in Gullah as unaltered Africanisms. Adjacent vocoids, nasal + obstruent sequences, labio-velar plosives, nasal vowels, and word prosody appear as partially restructured. African words used in conversation are shown to exhibit processes not found in the personal names. The high level of linguistic consciousness for personal names makes it likely that the maintenance of West African phonology is an act of sociolinguistic identity.

**KEYWORDS:** adstrate, creole hybridity, lexical layers, restructuring, substrate, superstrate

MUCH RESEARCH SHOWS that West African phonology contributes to the sound structure of Atlantic creole languages (Alleyne 1980; Boretzky 1983; Holm 1988, 2000; Singler 1999; Devonish 2002; Maurer 2008; Smith 2008; Uffmann 2009; Brousseau 2011). Even Bickerton (1981, 121)—chief proponent of the bioprogram hypothesis—admits to African continuities in the phonology of creole languages: “Saramaccan is well known as being, among the three Surinam creoles (or, for that matter, among all the Caribbean creoles), the one which best preserves African lexical and phonological characteristics.” Despite overwhelming evidence for the influence of West African languages on Atlantic creole languages, the proposition that African phonologies contribute to Gullah phonology is a matter of debate.

Turner (1949, 240) argues strongly that “the sounds of Gullah show many striking resemblances to those of several West African languages.”<sup>1</sup>

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Mufwene, however, concludes that the English superstrate is the dominant phonological influence on lexical items and names from the African substrate: “The African proper names in Gullah [...] certainly represent cultural, non-linguistic, Africanisms,” but they “do not support much the attempt to prove its linguistic Afrogenesis” (Mufwene 1985, 160–61). Later, Mufwene (2008, 145) reiterated the idea that English phonology was in control: “In the case of Gullah, one must note here the significance of a phonology that is essentially English and has influenced the forms of the African ‘basket names’ discussed by Turner (1949)” (see also Mufwene 1993, 199). Turner’s and Mufwene’s positions occupy opposing ends of a cline of African continuity versus English influence. The question is how these seemingly contradictory judgments can be reconciled.<sup>2</sup>

Mufwene and Gilman (1987, 134) argue that both African and English sources contribute significantly to the grammar of Gullah: “The result in Gullah was the formation of a creole with a unique combination of features selected, partly under influence of universal principles, from African and English sources.” Hancock’s (1988, 1994) componentiality hypothesis also highlights input from African languages and the various dialects of metropolitan English to English-lexified Atlantic creole languages, including Gullah. Recent research (Michaelis 2008; Smith 2008) finds it necessary and fruitful to investigate the contribution of both superstrates and substrates to the development of creole languages such as Gullah; we should be surprised if West African elements in Gullah either primarily or exclusively exhibit phonological patterns derived from English. All of this aligns with Mufwene’s (1992, 169) conclusion that “both the substrate and superstrate languages [...] have exerted complementary and often mutually corroborative influences on the structure of the creoles.” Thus, it seems reasonable to propose that phonological patterns from West African languages play a significant role in the Gullah West African vocabulary, particularly in the personal names, alongside influence from English.

According to Pollitzer (1999, 116), Turner divided Gullah lexical items of putatively West African language origin he collected into three categories: 3,595 “Gullah personal names” (Turner 1949, 43–190), 251 “words used in conversation” (Turner 1949, 190–204), and 92 “expressions heard only in stories, songs, and prayers” (Turner 1949, 205–8), for a total of 3,938 West African words in Gullah. All the items are presented in professional phonetic transcription and thus constitute a massive repository of information on the sound structure of Gullah. The vocabulary also contains a wealth of etymological information, which, for instance, enabled the historian Michael Gomez to note that “some 274 [of the names in Turner’s study] have a possible Muslim connection or derivation” (Gomez 2005, 158).<sup>3</sup> The corpus has

been influential mainly because it clearly shows West African lexical influence on Gullah. Portions of the vocabulary have also been considered in general discussions of the substrate component of Gullah and in relation to other Caribbean and Atlantic creoles (Cassidy 1980, 1994; Hancock 1980, 1988).

Turner uses evidence he collected on the sound structure of West African vocabulary items in Gullah sparingly in his own analysis, perhaps because he saw them primarily as lexical rather than phonological Africanisms. Turner's (1949, 40) aim in collecting West African personal names was to "reveal that [Gullah speakers] have used the same methods as their African ancestors in naming their children." He valued the other West African words he found "not only because [...] the separate words [...] are of African origin but also because of the interesting combinations of African words that have remained practically unchanged in meaning and pronunciation since the Gullahs were brought to South Carolina and Georgia as slaves" (Turner 1949, 42-43). As Dillard (1972, 124-35) observes, in the mouths of slaveholders, who had naming power, day names underwent pejoration and, on the basis of sound similarities, African names became classical names—"[f]or the person who is naming human beings and not worrying over anthropology or etymology, it does not matter whether Phoebe originates in a classical name for the moon or in an African name for one born on Friday" (Dillard 1972, 133). Dillard (1972, 130) does not dispute the West African origin of the basket names in Turner's inventory, however: "Ironically enough," he writes, "even the name Sambo—for all that it may be hated as a symbol of the stereotypes in the Black community—has a respectable derivation from West African naming practices," for evidence of which he has recourse to Turner (1949, 155).

Turner notes the phonology of African words used in conversation and songs but does not extend that phonology to the sound structure of the personal names. In chapter 2, "Phonetic Alphabet and Diacritics" (1949, 15-30), he catalogs and exemplifies phones in the English-based vocabulary of Gullah and in words from the putative West African source languages. Sounds or items from his vast collection of West African words in Gullah receive no mention here. In chapter 7, "Sounds" (1949, 240-48), Turner focuses on particular groups of sounds such as ejectives, homorganic nasal plus plosive, and the bilabial fricatives. He exemplifies them with items from Gullah and suggests origins for them in West African languages.

The role of the West African words in Gullah is marginal in Turner's discussion of phonetics. No mention is made of them in the sections on vowels (Turner 1949, 246-48). In the eleven sections on consonants, items from the West African words in Gullah are mentioned only among the paragraphs on homorganic nasals + plosives and on the labio-velar plosives. Gullah West African personal names are adduced only in the former section to support

the idea that Gullah possesses sequences of homorganic nasal + plosive, as for *m'bila* (personal name) (Turner 1949, 241). In such phonological description, Turner hopes to demonstrate the resemblance of phonetic modifications he observes in the English-based vocabulary of Gullah to sounds from West African languages. In other words, he underutilizes the treasure of information he provides on the phonology of the West African words in Gullah, in particular the personal names.

Turner gives suprasegmentals such as stress, tone, and syllable phonotactics short shrift, yet his phonological analysis provides data and insight on them unavailable in any other source. There is a sizable literature on the history and cultural context of African American names in general (e.g., Puckett 1937; Dillard 1968; Holloway 2005), but none has investigated their phonology. Given dialectological and modern sociolinguistic emphasis on phonetic and phonological features, as well as their importance of such features in creole studies and the significance of Turner's work on Gullah for the landscape of American speech, it is surprising that only a couple of linguistic studies to date examine the phonology of the Gullah West African vocabulary Turner presents. Sengova (1994), for instance, investigates influence from his native Mende on Gullah and finds it in abundance. He mentions only consonant mutation, however, as far as (morpho)phonology is concerned.

Mufwene (1985) deserves most credit for detailed phonological analysis of Turner's West African-based materials, though he considers only a handful of phonological patterns. We cannot be sure if such differences are categorical or variable, except for the merger of [w, v] to [β] and the change from [ɔ] to [ɒ]. Turner (1949, 25, 241–42) described the *v/w*-merger as complete in several places. From Turner's statement that "[ɔ] is seldom heard in Gullah" and that "[i]n Gullah, [ɒ] is heard regularly in such words as *law, all, brought, etc.*, as well as in *body, pot, dollar, etc.*" (Turner 1949, 18), we can gather that the change from [ɔ] to [ɒ] in the African vocabulary, as in Caribbean creoles under pressure from English, is categorical or nearly so. Turner does not discuss the vowel hiatus and consonantal fortition pattern Mufwene (1985) uncovered, so we do not know if they are (near-)categorical or variable. As far as labio-velar and prenasal stops are concerned, Turner (1949, 241) asserts that the former are "sometimes heard" and the latter are "heard fairly frequently" in Gullah. Five of six of Turner's examples for prenasal stops come from the personal names. On the other hand, Mufwene (1985) features legitimate examples from the same lexical domain where prenasalized stops appear as plain stops. Thus, variation certainly exists among sounds in this portion of Gullah's West African lexicon, and many classes of sounds or phonological environments could have undergone change or

could be characteristic of the phonological development of the West African vocabulary of Gullah.

Gullah's significant position in the American linguistic landscape, especially in the context of its Atlantic Creole congeners, warrants further investigation of the phonology of its African lexicon. Here, we revisit Turner's African-based material in Gullah to launch a detailed and systematic investigation of its patterns of phonological change and continuity and to examine degrees of phonological restructuring in the development of Gullah's West African lexical layer, especially segmental phonology, syllable phonotactics, and prosody. By tracking the functionally distinct areas of the Gullah West African lexicon Turner identified, we can investigate whether the patterns apply to the African vocabulary as a whole or to parts of it.

The next section of this article presents a working definition for *Africanism* and discusses the locus of English influence on the Gullah West African vocabulary, followed by presentation of unaltered phonological Africanisms and partially restructured patterns. The discussion section challenges notions that the African lexicon of Gullah is a late addition to the language and that loan phonology explains the observed patterns. The conclusion suggests paths of future research.

All phonetic transcriptions taken from Turner (1949) are presented as they are given in the original. Turner followed IPA conventions closely, but the reader should note that “*f* used in Gullah words represents the voiceless bilabial fricative [ɸ]” (Turner 1949, 305n27) and that “*w* used in Gullah words usually represents the voiced bilabial fricative [β]” (306n43). Tone is represented by subscripts: ■<sub>1</sub> represents a low tone, ■<sub>2</sub> a mid-tone, and ■<sub>3</sub> a high tone (Turner 1949, 30). The name *Gullah* is used for the language throughout, following Turner's practice and that of most subsequent literature, though many speakers and community members prefer *Geechee* (Bailey 2000, 5).

#### AFRICANISM AND THE POTENTIAL FOR ENGLISH INFLUENCE

We need a formal working definition of *Africanism* to gauge the degree of phonological continuity in the Gullah West African lexicon. Furthermore, we need to look at the linguistic context in which we find the Gullah West African vocabulary with respect to the remainder of the language and the linguistic interaction patterns employed by Gullah speakers at the time of Turner's field research.

DEFINITION OF *AFRICANISM*. Turner (1949, v) uses synonyms or paraphrases to delineate the notion of Africanism. He speaks of “considerable influence of several West African languages upon Gullah,” “survivals from many of the African languages spoken by the slaves,” “striking similarities between Gullah and the African languages,” and “African speech habits” (1949, v, 5), unfortunately overlooking the wide range of typologies underlying them. Nevertheless, Turner’s terms characterize a diachronic linguistic continuity. As Mufwene (1994, 38), puts it, “structures of language varieties of people of African descent in the New World are allegedly continuations of structures of some African languages.” Carrington (1993, 39) provides a more precise definition of African substrate continuity or Africanism in creole languages:

The term “Africanism” in relation to Afro-American should be used to describe a feature transmitted from a time when the user of Afro-American or his or her historical-cultural community spoke a language indigenous to the African continent. [...] If a feature F<sub>2</sub> of a variety of Afro-American is manifest in a relevant African language but not in a relevant European language, then—independently of its presence or absence in other languages—it is an *Africanism*. [emphasis in original]

We can safely assume, following Mufwene (1985, 161), that all Gullah personal names and expressions heard only in stories, songs, and prayers and the vast majority of the other words used in conversation presented by Turner under the rubric “West African words in Gullah” are indeed lexical Africanisms (see also Baird and Twining 1994).

Following Mufwene’s (1985) method in principle, one can identify phonological Africanisms in Gullah by extracting distinct phonological features from the phonetic transcriptions of corresponding West African items Turner collected and investigating the phonological patterns thus revealed. The question is, do West African patterns differ from those in Gullah items. If there is no difference, the feature or pattern is logged as an Africanism as long as it seems reasonably clear that relevant varieties of English could not have served as a model or did not exert an influence. The status as a substrate feature will be particularly obvious when no parallel for the putative Africanism can be observed in the English-based vocabulary of Gullah. If there is a difference, the first task is to describe and characterize it phonologically. Then, one would like to know if the difference is categorical or variable. Finally, one must determine whether there is a credible English model for the observed difference.

DUAL LAYER COMPETENCY. The obvious contemporaneous phonological influence on African-based vocabulary of Gullah is the English-based vocabulary. Turner documented it extensively, and Gullah persons were surely competent in it while also using African-based lexical items. The West African

vocabulary, especially the thousands of personal names, were shielded from community outsiders:

It is true that in almost all of their dealings with white people the Gullahs use their English names if they have any. [...] If, therefore, a field-worker does not come in contact with these people in their homes, but merely consults the class-rolls of the teachers or other records, he will assume that they have only English names. [Turner 1949, 12]

Gullah speakers were aware that their African names were special, and they could be diffident about using them with community outsiders, though Turner was an outsider, and they shared names and culture with him easily when he visited them, which might lead us to question his claim here.<sup>4</sup>

The linguistic competency of Gullah speakers comprises two distinct lexical layers, one historically West African, the other English based. If Gullah speakers resist sharing names with the outside world, why assume that they categorically wish to adjust the phonology of their West African-based personal names or the expressions they recalled in stories and songs to (White) Southern American English? Still, one expects overlap between the phonology of the West African names and the English-based vocabulary in Gullah because both lexical layers figure in the competency of individual speakers and, hence, likely influence each other.

## WEST AFRICAN LINGUISTIC CONTINUITIES

Mufwene (1985, 161) concludes that we should not expect to find any phonological West African linguistic continuity in the Gullah West African vocabulary, for while “African influence can certainly not be denied by fiat [...], a question not to be ruled out in the case of English words used as proper names is that of whether the African influence is exclusive.” We may not expect to find phonological West African linguistic continuity in Gullah, but it would be most interesting should we find some anyway. In the spirit of Sengova’s (1994) analysis of Mende influence in Gullah and the literature on substrate phonology in creole languages in general, we predict evidence of West African sound structure in this lexical layer. This section reveals that unaltered phonological Africanisms can be found in the Gullah West African lexicon.

PHONEMIC PALATAL NASAL. Unlike metropolitan English and the English-based vocabulary of Gullah, the West African lexicon of Gullah features a phonemic palatal nasal. As far as the English-based vocabulary of Gullah is concerned, Turner (1949, 27) writes that the palatal nasal “[ɲ] is heard

in Gullah in many words in which [n] or y [j] would be used in cultivated English, as in *ju* ‘new,’ *juz* ‘use,’ *juvŋ* ‘young,’ etc.” From the phonetically transcribed Gullah texts in Turner (1949, 260–89), one can add *jus* ‘used’ and *mju* ‘manure’, but one also finds variation because ‘use’ is rendered as *yus*. Thus, [j] appears mostly as a variant of /n/ in the English-based vocabulary of Gullah, occurring word-initially only before back vowels. The distribution of [j] in the Gullah West African personal names is not limited in this way. Instead, word-initial palatal nasals appear before the full set of vowels there.

1. WORD-INITIAL PALATAL NASALS

- a. *'naba* ~ Kongo *naba*; *'neda* ~ Bambara *neda*; *'neta* ~ Wolof *neta*; *'nibre* ~ Fula *nibre*
- b. *'npka* ~ Kimbundu and Tshiluba *npka*, Kongo *nikka*; *'nolo* ~ Bambara *nolo*; *'nula* ~ Umbundu *nula*, *nūla*

The data in (1a) show that /j/ occurs before front vowels in word-initial position in the West African personal names, though not in English-based Gullah vocabulary. Both West African- and English-based vocabulary feature the palatal nasal before back vowels, as shown in (1b) for the West African names. This distribution of /j/ is reiterated in medial position.

2. WORD-MEDIAL PALATAL NASALS

- a. *a'jadi* ~ Wolof *a'jadi*; *'kɔŋe* ~ Ewe *xɔ̃<sub>3</sub>ne<sub>ɪ</sub>*; *'keŋe* ~ Mende *keŋe*; *'api* ~ Ibo *a<sub>1</sub>ni<sub>3</sub>*
- b. *'fapv* ~ Ewe *fa<sub>3</sub>nv<sub>3</sub>*; *'eŋv* ~ Gã *e<sub>3</sub>nv<sub>ɪ</sub>*; *'banun* ~ *banun* ‘name of a West African language’ (Turner does not give a language name in conventional spelling as a source; *Banyun* in Lewis [2009])

The data in (2a) show that the palatal nasal occurs before front vowels in medial position in the Gullah West African personal names; (2b) shows analogously that medial /j/ also appears before back vowels.

Minimal pairs distinguished by /n/ versus /j/ are also attested among the personal names, as in *'nema* ~ Bambara *nema* versus *'nema* ~ Tshiluba *nema*. Thus, it is safe to conclude that /j/ is phonemic in the corpus of Gullah West African names. The distribution of the palatal nasal in the conversation words is compatible with this conclusion. In that inventory, /j/ occurs in word-initial position before front vowels, as in *jam* ‘to eat’ ~ Wolof *jam* ‘to eat’, *'nebe* (*'nebe*) ‘lima bean’ ~ Wolof *nebe* ‘kidney bean’, and *jinɪ* ‘the female breast’ ~ Mende *jinɪ* ‘female breast, udder’. We also find the palatal nasal in word-final position as in *boj* ‘tooth’ ~ Wolof *boj* ‘tooth’. This occurrence is predicted if /j/ is a phoneme in the conversation words as well, even though there are no instances of the palatal nasal before back vowels. There are no occurrences of the palatal nasal in the “other words.” Clearly, the status of

/ɲ/ as a phoneme in the Gullah West African vocabulary is distinct from the English-based vocabulary, where [ɲ] is an allophone of /n/.

Phonemic palatal nasal /ɲ/ in the Gullah West African vocabulary is undoubtedly an Africanism. Clements (2000, 125) includes /ɲ/ in his prototypical African phoneme system. Uffmann (2009) finds it in 13 of 17 West African languages (76%) in his survey of potential substrate languages for Atlantic creoles. In sharp contrast, the palatal nasal does not appear to play a role as a phoneme in varieties of English in the British Isles. It does not appear on the checklist of nonstandard English features in Hickey (2004), for example. Tellingly, the palatal nasal appears as important in descriptions of West African contact varieties of English such as Cameroon Pidgin English (Kamtok) (Menang 2004; although not in Kouega 2008) and Ghanaian Pidgin English (Huber 1999).

Thus, the presence and distribution of the palatal nasal /ɲ/ as a phoneme in the West African vocabulary of Gullah is an unaltered West African continuity: it is a feature retained from a time when Gullah speakers or their historico-cultural community spoke a language or languages indigenous to West Africa. Phonemic palatal nasal as found in the Gullah West African vocabulary is manifest in numerous relevant West African languages but not in British or American standard English, relevant dialectal varieties of English, or in the English-based vocabulary of Gullah. The contrast with the allophonic distribution of the palatal nasal in the English-based vocabulary of Gullah particularly shows that the specific distribution of the palatal nasal, not its mere presence, is the Africanism in question.

STATUS OF [ə] AND [ʌ]. We observe a difference in vowel inventory when we contrast the “other words used in conversation” with the personal names and the “expressions heard only in stories, songs, and prayers.” We find the non-low central vowels in the conversation words, but not elsewhere in the Gullah West African lexicon.

The conversation words feature [ə] and [ʌ], as in many varieties of English, including the English-based vocabulary of Gullah (Turner 1949, 19–20), but not in English creoles.

3. [ə] AND [ʌ] IN “OTHER WORDS USED IN CONVERSATION”

- a. *'unə* (*'hunə*, *'wunə*) ‘you’, ‘your’ ~ Ibo *u<sub>3</sub>nu<sub>1</sub>* ‘you (pl.)’, ‘your (pl.)’  
*'tatə* ‘three’ ~ Fula *tati* ‘three’
- b. *'gʌlə* (*'gola*, *'gula*) ‘Gullah’ ~ *gola* (*gɔlə*, *gɔra*, *gula*, *gura*) ‘a Liberian tribe and its language’, *ɲgɔlə* ‘a tribe in the Hamba basin of Angola’  
*'gʌmbə* ‘okra’ ~ Tshiluba *ʃiŋgɔmbɔ* ‘okra’; Umbundu *offiŋgɔmbɔ* ‘okra’
- c. *'bʌkrə* (*bʌkrʌ*) ‘white man’ ~ Ibo and Efik *m<sub>1</sub>bʌ<sub>1</sub>kʌ<sub>2</sub>rʌ<sub>2</sub>* ‘white man’

Occurrence of [ə] and [ʌ] depends on the level of word stress, again as we would expect in English. [ə] appears in unstressed position, as in (3a) and (3c), whereas we find [ʌ] in stressed position, as in (3b) and (3c). In contrast, we can observe that [ə] and [ʌ] do not occur in corresponding West African forms adduced by Turner. We are thus dealing with a genuine change in vowel inventory and distribution in the transition from West African forms to Gullah. It is interesting to note that such change was in progress when Turner did his field research. He recorded variants in Gullah that reiterated the West African vowels, as in *'gola* and *'gula*. Another point in the trajectory of change is seen by the notation of tone in the variant *b<sub>1</sub>k<sub>2</sub>v<sub>3</sub>*.

Turner (1949, 20) located [ə] in Wolof (which also features [ʌ]), Umbundu, Temne, and the Anglo dialect of Ewe, yet no West African lexical item adduced by Turner for a personal name contains [ə]. Turner did, however, assign a role for *də* 'to, towards' from Ewe in the collection of "other words used in conversation." Substrate leveling (Uffmann 2003, 2009) would account for the contrast between the occurrence of [ə] in the vowel inventories of relevant substrate languages and its absence among West African forms that correspond to the personal names. In substrate leveling, when speakers of different substrate languages are in a contact situation of the type we find in creole formation, they converge on a common standard of substrate grammar. The least marked variety will win in the contact situation barring a dominant substrate language or overt targeting of the superstrate grammar. "Consequently, relatively unmarked substrate grammars are retained in creole formation, and features will be retained which are common across substrate languages, while idiosyncratic features will be lost" (Uffmann 2009, 89).

If the non-low central vowel [ə] is marked in comparison to prototypical (West) African five-, seven-, or nine-vowel systems, we can postulate substrate leveling in the older phonology of the Gullah West African lexicon: [ə] was lost because it appeared only in a minority of substrate phonologies. Substrate leveling indeed occurred, and [ə] consequently does not figure in the phonology of the Gullah West African lexicon, or only exceptionally so. Thus, Gullah names and other items with [ə] could not have existed, and it would not have been possible for Turner to trace Gullah items to corresponding West African forms featuring [ə]. The influence of the English-based vocabulary on the "other words used in conversation" sanctioned [ə] and [ʌ], and Turner is thus driven to hypothesize equivalents for them in West African languages. The existence of such [ə] in the Gullah item *də* 'to, towards' prompts Turner (1949, 192) to trace it to Ewe *də* 'to, towards'. Yet [ə] in *də* 'to, towards', as in *i rɔɪd də ɔlstən* 'He rides to Charleston' (Turner 1949, 192), could easily (co-)originate in English, in line with Mufwene's (1985) argument.

Whereas [ə] and [ʌ] in the English-based vocabulary of Gullah explains the two non-low central vowels in the inventory of vowels in the West African-based “other words used in conversation,” English influence did not extend to the other parts of the West African lexicon in Gullah. Instead, [ə] or [ʌ] are not found in the Gullah versions of West African personal names or in the “expressions heard only in stories, songs, and prayers.” This absence of non-low central vowels is matched in most West African languages from a time when the user of Gullah or his or her historico-cultural community spoke a language or languages indigenous to West Africa. The limited occurrence of [ə] and [ʌ] in the vowel inventories of relevant substrate languages and the corresponding absence of both vowels in the vast majority of the Gullah West African vocabulary items sharply contrasts with the ubiquity of these vowels in English and in the English-based vocabulary of Gullah. Thus, the absence of the vowels is the Africanism.

SYLLABLE TYPES. Substrate continuity is pervasive in the African lexicon of Gullah as far as types of syllables and their frequency are concerned. This Africanism emerges even though apocope results in nonetymological obstruent codas in the West African-based “other words used in conversation.”

Clements (2000, 144–45) advises against believing that African languages globally disfavor consonant clusters. Maddieson (2011) uses three values—simple, moderately complex, and complex—for syllable types in his study of syllable structure. By applying Maddieson’s complexity measure to data in *The World Atlas of Language Structures (WALS) Online* (Dryer and Haspelmath 2013) typological sample of West African languages, we can identify languages that might have been Gullah substrates. Given Clements’s cautionary note, it is not surprising to find nonsimple syllable types in West African languages in *WALS Online*.

Languages with simple syllable structure allow only V or CV syllables. Maddieson (2013) identifies Niger-Congo languages, in particular Igbo, as belonging to this group. Languages with moderately complex syllable structures also allow CVC or CCV syllables by Maddieson’s measure. CCVC syllables fall in this category if the second of the two initial consonants is a liquid or a glide. Languages with complex syllable structure allow freer combinations of the two initial consonants, more than one postvocalic consonant, and/or more than two consonants preceding or following the nucleus. Maddieson identifies English as such a language.

When we examine West African languages on the syllable structure map in *WALS Online*, we find mostly moderately complex syllable structures, but also a number with simple (C)V templates and several with complex syllable structures. West African languages with simple syllable structure, according to the *WALS Online* map, include Bambara and Yoruba. CiLuba, Efik, Ewe,

and Gã are among the languages with moderately complex syllables. Complex syllables by Maddieson's (2011) measure feature in Temne and Wolof. All of these languages figure as substrates in Turner's Gullah West African vocabulary. Thus, we find quite a bit of variety in terms of syllable structures among West African substrate languages, ranging from (C)V to (C)(C)V(C). Maddieson's (2011) categorization is thus broader than we might wish, for while West African languages do not allow *sC* clusters, more than two consonants in onset position, or more than one consonant in syllable codas, the label "complex syllable structure" groups West African languages with C + liquid clusters (see Clements 2000, 146–47) together with languages such as English, which makes them appear more similar than they are.

We can compare Gullah personal names to corresponding items from West African languages adduced by Turner to gauge the fate of West African syllable structures in the transition to Gullah personal names. Even a cursory look shows that an overwhelming number of Gullah personal names are juxtaposed to West African forms with a (C)V(N) syllable template, as in *ana'bido* η ~ Mandinka *anabido*η, *e<sub>1</sub>re<sub>1</sub>lu<sub>3</sub>* ~ Yoruba *e<sub>1</sub>re<sub>1</sub>lu<sub>3</sub>*, *so'fati* ~ Ewe *so<sub>3</sub>fa<sub>1-3</sub>ti<sub>3</sub>*, and *o'lusi* ~ Wolof *olusi*. Numerous additional examples for (C)V syllables can be gleaned from the data shown elsewhere in this article. All four nasals can appear in coda position, as in *'baram* ~ Wolof *ba:ram*, *me'lentan* ~ Wolof *melentan*, *boŋ* 'tooth' ~ Wolof *boŋ* 'tooth', and *'firin* ~ Susu *firin*.

Syllable- or word-final nonnasal consonants occur, but they are rare. They come in mostly through (restructured) Arabic words from the sub-Saharan languages or through Wolof, whose name already shows that obstruent codas are possible in it.

#### 4. NONNASAL CONSONANT CODAS

##### a. Laterals word-internally

*al'kama* ~ Bambara *alkama*; Hausa *al<sub>3</sub>ka<sub>3</sub>ma<sub>1</sub>* (Arabic)

*al'tine* ~ Wolof *altine* (Arabic)

*'fulbe* ~ *fulbe* 'name of a West African tribe'

##### Laterals word-finally

*'lengol* ~ Fula *lengol*

*'fetel* ~ Wolof *fetel*

*'ɟɟal* 'to rise' ~ Wolof *ɟɟal* 'to cause to rise'

##### b. Obstruents word-finally

*'ɒɒf* ~ Wolof *ɒɒf*

*'tenew* ~ Wolof *tenev*

*'malik* ~ Wolof *malik*

*det* 'heavy rain' ~ Wolof *det* 'heavy rain'

The data in (4a) show that codas containing [l] are possible in word-internal and word-final position, whereas obstruents can be found word-finally, as in

(4b). Clear examples for word-internal syllable-final obstruents necessitated by West African etyma cannot be found. For example, *ts* in *at'sufe* ~ Fante  $a_1tsu_3\phi e_3$  could easily be reanalyzed as containing the voiceless palatal plosive [c] described elsewhere by Turner to result in the transcription *a'cufo*. The *sr* cluster in *fesre* ~ Ewe  $fe_3sre_1$  could be a syllable onset more precisely transcribed as *'fe.sre*. Thus, there is a gap in the occurrence of final obstruents. As argued below, the West African labio-velars *gb* and *kp* have been reinterpreted so that their velar components appear as syllable codas in the Gullah West African names, thus filling the gap.

Consonant clusters in word- and syllable-initial position occur, but they are also quite rare in the African lexicon of Gullah, apparently limited to obstruent plus liquid (CL) or obstruent plus glide (CG). Before we proceed, we should recall the dual nature of what Turner transcribes as *w*. This “usually represents the voiced bilabial fricative [β]” (Turner 1949, 306n43). It can behave as would be expected from a fricative, as its appearance in *'tenuw* to capture the fricative in the Wolof etymon *tenuv* in (4b) shows. On the other hand, it can also behave more like a glide, as the examples in (5a) demonstrate. The data in (5) exemplify C + glide (CG) and C + liquid (CL) clusters observed in initial position among the Gullah West African words.

#### 5. WORD- AND SYLLABLE-INITIAL CONSONANT CLUSTERS

- a. *'fwenka* ~ Kongo *fwenka*      *'mwene* ~ Kimbundu *mwene*  
*'twisa* ~ Kongo *twisa*      *'mutwe* ~ Kimbundu *mutwe*  
*eswenga* ~ Kongo *eswenga*  
*kin'kwawi* ‘partridge’ ~ Kongo *kin'kwawi* ‘partridge’
- b. *'fyene* ~ Bambara *fyene*      *'fyepa* ~ Bambara *fyepa*
- c. *'brafo* ~ Twi *brafo*      *'traso* ~ Twi *ntraso*  
*'driɲa* ~ Ewe *driɲa*<sub>1</sub>      *v'kra* ~ Twi *ɔkra*  
*ka'kraba* ~ Fante *ka<sub>1</sub>kra<sub>3</sub>ba<sub>3</sub>*
- d. *klu* ~ Ewe *klu*<sub>3</sub>      *'klema* ~ Mandingo *klema*  
*'plimv* ~ Ewe *kpli<sub>1</sub>mɔ*<sub>1</sub>      *'pegli* ~ Ewe *kpe<sub>3</sub>gli*<sub>1</sub>  
*fufla* ‘lungs of an animal’ ~ Gã *fu<sub>3</sub>fla*<sub>1</sub> ‘lungs’

If syllable onsets are maximized when sonority steadily rises toward the syllable peak, the data in (5a) and (5b) show CG clusters at the beginning and inside the word. By the same token, the data in (5c) and (5d) show CL onsets initially and word-internally. Labial oral consonants in Gullah may be phonetically bilabial fricatives, but the data in (5b) show that the voiced labial oral consonant may exhibit the kind of distribution we would expect from a glide. Clusters of the type observed in (5) are also at the top of the list of the syllable onsets Sabino (1993) cataloged for West African substrate languages that are relevant in the formation of Negerhollands.

The preceding analysis shows that the West African vocabulary of Gullah features the syllable types V, VN, CV, CVN, CGV, and CLV plus rarely occurring nonnasal single codas. The most frequent syllable template, (C)V(N), may thus be extended to (C)(C)V(C), if sonority sequencing is observed. Importantly, we do not find onset clusters that violate sonority sequencing of the English *s* + {*p, t, k*} type or initial clusters of three consonants as in English *s* + {*p, t, k*} + {*w, y, r, l*}. Furthermore, we never observe more than one coda consonant in the West African vocabulary of Gullah. In other words, the inventory of West African syllable types matches exactly that observed in the Gullah West African lexical layer.

VOWEL DELETION. Close examination of “other words used in conversation” reveals differences between West African and Gullah syllable structure via vowel deletion.

6. WORD-/SYLLABLE-FINAL OBSTRUENTS THROUGH VOWEL ELISION

*daf* (*def*, *'defu*) ‘rice flour’ ~ Vai *de<sub>1</sub>fu<sub>3</sub>* ‘rice flour’, Hausa *da<sub>3</sub>fa<sub>3</sub>* ‘plain boiled rice’

*'fugfug* (*'fuk'fuk*) ‘the lungs of an animal’ ~ Yoruba *fu<sub>1</sub>ku<sub>1</sub>fu<sub>2</sub>ku<sub>1</sub>* ‘lungs’

*kwaf* (*'kwafa*) ‘to scrape’ cf. Hausa *kwar<sub>1</sub>fa<sub>2</sub>* ‘to dip or bail out the last bit of water from a vessel or well’

*tot* ‘to carry’ ~ Kikongo *tota* ‘to pick up’, Kongo *tota* ‘to pick up’

The data in (6) show that some nonetymological final obstruents appear via apocope in the “conversation words.” This process is variable. Turner presents alternate forms in which the West African word-final vowel is putatively intact. Furthermore, syncope can result in syllable-initial clusters not present in the etymon, as in *'bakra* (*ba<sub>1</sub>kr<sub>3</sub>*) ‘white man’ ~ Ibibio and Efik *m<sub>1</sub>ba<sub>1</sub>ka<sub>2</sub>ra<sub>2</sub>* ‘white man’, shown above. The original word-final vowel has been transmitted in other items “used in conversation.”

7. PRESERVATION OF ORIGINAL WORD-FINAL VOWEL

*'kwas*a ‘rope’ ~ Kongo *ηkwasa* ‘rope, string’

*'toti* ‘frog’ ~ Vai *to<sub>1</sub>ti<sub>3</sub>* ‘frog’

Were apocope pervasive, we might expect the unattested forms \**kwas* and \**tot* (for ‘frog’; cf. English *toad*), which would fit the (C)(C)V(C) template observed with the Gullah West African vocabulary elsewhere. These unattested forms would mesh with the phonotactics of English. However, the syllables in the words in (7) are preserved even though there are semantically close superstrate words that would suggest monosyllabicity, as in English *toad*. Variable vowel elision in the “other words used in conversation” does not affect the syllable template from West African source languages in the

Gullah West African names and the words used only in stories and songs. Crucially, we never find vowel elision applied to create clusters that otherwise originate in English.

#### 8. UNATTESTED SYLLABLE STRUCTURE ADJUSTMENTS IN THE GULLAH WEST

##### AFRICAN LEXICON

- a. \**'stilu* (cf. *se'tilu* ~ Yoruba *se'ti<sub>1</sub>lu<sub>2</sub>*)  
       \**'stifa* (cf. *'sitifa* ~ Mende *sitifa*)  
       \**'skunu* (cf. *sa'kunu* ~ Bambara *sakunu*)
- b. \**'scrifa* (cf. *saci'rifa* ~ Twi *sacirifa*)
- c. \**'rand* (cf. *'randa* ~ Wolof *randa*)  
       \**'ewa'lant* (cf. *ewa'lanti* ~ Kongo *evalanti*)  
       \**'manz* (cf. *'manzo* ~ Hausa *manzo*)

All the constructs on the left in (8) are unattested in the Gullah West African vocabulary even though they would be possible words in English phonotactically. Clusters typical in English, but not found in West African languages, however, do not occur in this layer of the Gullah lexicon regardless of whether we try out initial *s* + {*t, k*} clusters, as in (8a), a potential *str-* cluster (with affricated /t/), as in (8b), or if we attempt NC codas as in (8c). Note that *s* + obstruent clusters are attested robustly in the English-lexified vocabulary of Gullah, for instance, *scm* 'skin' and *stawefən* 'starvation' in the Gullah Texts (Turner 1949, 262). English word-final *-t/-d* generally does not appear in Gullah after nasals as per the well-known creole feature of *-t/-d* deletion, but we encounter other coda clusters as in *twelw* 'twelve' (Turner 1949, 264). Nonetheless, if metropolitan English were a pervasive influence on the African vocabulary in Gullah, we might have expected forms such as (8c), at least as variants.

The syllable types V, VN, CV, CVN, CGV, and CLV plus nonnasal single coda we observe in the Gullah West African vocabulary are technically not features as understood in our definition of Africanism, but rather an inventory. The crucial point about the West African feel to the syllable structure of this lexical layer is not that these syllable types do not appear in English or in the English-based vocabulary of Gullah (they do, of course), but that these are the only ones that we find. That is, we observe that the West African syllable structure has been shielded from English in that we do not encounter *s* + {*p, t, k*} onset clusters, initial clusters of three consonants, frequent full range of coda obstruents, or more than one consonant in the coda even though we find such structures in the English-lexified vocabulary of Gullah or in metropolitan English. The unaltered African continuity is that only syllable types attested in West African languages are found in the Gullah West African vocabulary.

The distribution of phonemic palatal nasal /ɲ/ and the inventory of syllable types identified in this section appear to be unaltered West African continuities. The West African personal names and the expressions heard in stories and songs in Gullah escaped influence of the English vowel inventory in the sense that the non-low central vowels [ə] and [ʌ] are absent even though stress is the pervasive prosody. In this instance, then, continuous West African vowels had not accommodated to the English vowel inventory.

### PARTIAL PHONOLOGICAL RESTRUCTURING

Restructuring as linguistic reorganization is a central notion in recent creole linguistics (Neumann-Holzschuh and Schneider 2000a; Mufwene 2001, 25–80; Holm 2004; Kouwenberg and Singler 2008). Restructuring can occur in degrees, which partly accounts for the strength of influence that a given language or language group has in creolization and thus also helps to explain variation within a creole. Neumann-Holzschuh and Schneider (2000b, 6) conclude that restructuring “processes appear not to have been carried out to the same extent, with the same intensity, and with the same effects in all creoles.” Versteegh (2008) provides a discussion of degrees of restructuring in the broader context of language contact. This process view of linguistic reorganization is consistent with Arends’ theory of gradual creolization, which argues that creole formation occurs over an extended period of time (see Arends 1986, 1993; also Cardoso 2009).

A given process of linguistic change may be incomplete or in progress at any point in the development of a creole such as Gullah. Neumann-Holzschuh and Schneider (2000b, 6) also state that “restructuring should be taken to refer to all structural modifications that a LEXIFIER LANGUAGE undergoes in the selection and evolution of new linguistic elements, influenced by other, competing languages, in a contact situation” (my emphasis). It is hard to see why restructuring should apply only to the lexifier or superstrate and not also to the substrate component in linguistic contact situations. If partial or gradual restructuring is understood as a global process, it follows that neither the substrate nor the superstrate component necessarily exerts complete control in a given structural domain in a contact language. In addition to reorganization of the lexifier, we should also expect to find modifications to the substrate sector. By the same token, superstrate origins endure restructuring just as well as substrate heritage. Thus, we expect complementary sets of phonological influences, English and West African, in the West African vocabulary of Gullah, the relations between which affect change in African

heritage phonology or its maintenance, as Mufwene has argued in several works, including those among the references here.

ADJACENT VOCOIDS. Gullah exhibits multiple West African language processes to deal with vowel adjacency. Vowel hiatus is retained but is resolved by glide insertion, diphthongization, and vowel deletion. Mufwene (1985, 158) highlights glide insertion of [iV] to [iyV], in his view a pervasive phonological pattern. However, glide insertion only partially affects the Gullah African lexicon. Vowel hiatus is generally avoided in English phonotactics but is quite common in West African languages.<sup>5</sup>

The data in (g) indicate that vowel hiatus is preserved in the African vocabulary of Gullah.

#### 1. PRESERVATION OF VOWEL HIATUS

##### a. Etymological external sandhi

<i>ke'anu</i>	~ Yoruba <i>ke<sub>3</sub> a<sub>1</sub>nu<sub>3</sub></i>
<i>la'ila</i>	~ Mandinka <i>la ila</i>
<i>'pange-'ami</i>	~ Kimbundu <i>pange ami</i>
<i>ɸbaluar'ye</i>	~ Yoruba <i>ɔ<sub>2</sub>ba<sub>2</sub>-o<sub>2</sub>lu<sub>3</sub>ai<sub>1</sub>ye<sub>3</sub></i>

##### b. Etymological internal sandhi

<i>ki'ana</i>	~ Kongo <i>kiana</i>
<i>si'eke</i>	~ Vai <i>siε<sub>3</sub>ke<sub>1</sub></i>
<i>si'oti</i>	~ Mandinka <i>sioti</i>
<i>i'bibio</i>	~ Yoruba <i>i<sub>1</sub>bi<sub>3</sub>bi<sub>1</sub>o<sub>1</sub></i>
<i>i'jaiye</i>	~ Yoruba <i>i<sub>1</sub>ja<sub>2</sub>ye<sub>3</sub></i>
<i>bu'ala</i>	~ Tshiluba <i>buala</i>
<i>yu'ela</i>	~ Umbundu <i>yuela</i>
<i>di'vkvlv</i> 'tadpole'	~ Kongo <i>diɔkvlɔ</i> 'tadpole'
<i>e'ria'ria</i> 'a marsh bird'	~ Bini <i>e<sub>1</sub>ria<sub>1-3</sub>ria<sub>1</sub></i> 'the sandfly'

These data show that vowel hiatus is sometimes continuous with West African source languages, especially when the second hiatus vowel in the Gullah item carries the main stress in correspondence to tone sandhi in forms from the underlying African languages. Adjacent vowels also appear when neighboring vowels are in unstressed syllables, as in *i'bibio* above, or when the first of them carries stress, as the last item in (g) shows. Apparently, retention of vowel hiatus is more frequent when the second vowel is stressed than in the other two environments.

The Gullah West African vocabulary also features strategies to resolve vowel hiatus. We are already aware of palatal glide insertion from Mufwene's (1985) work.

## 10. VOWEL HIATUS RESOLUTION VIA PALATAL GLIDE INSERTION

- a. i. *bi'yɔla* ~ Kongo *biɔla*  
 ii. *e'miya* ~ Kongo *emia*  
*e'siya* ~ Fante  $e_1s\dot{i}_3\ddot{a}_3$ , Twi *esiã*  
 iii. *'eyulu* ~ Kongo *eulu*  
*pi'reyu* ~ Twi *pireu*  
*se'peyu* ~ Twi *sepeu*
- b. *'tuwiya* 'fire' ~ Kongo *tuvia* 'fire'  
*,awenayi'bina* 'He will come to take you' ~ Vai  $a_1v\epsilon i_1na_{:3}i_3$   $bi_3na_1$  'He will  
 be coming to take you'

The data in (10a) present examples for the resolution of etymological vowel hiatus through palatal glide insertion in the personal names, but also in (10b) the conversation words and in the stories and songs—an influence of English according to Mufwene (1985). Insertion of [j] takes place mostly after [i], but on rare occasions also after other front vowels, as (10a.iii) shows. Glide insertion does not seem to be sensitive to stress. (10a.i) demonstrates that [j]-insertion occurs at the juncture of unstressed to stressed vowel. It also occurs in the transition from stressed to unstressed vowel in (10a.ii) and (10a.iii). Further, we also observe it between two unstressed vowels in (10b).

In line with the dual nature of *w* hinted at above—bilabial fricative [β] or labio-velar glide [w]—we also find *w* transcribed to break up vowel hiatus, presumably in its guise as a labio-velar glide.

11. VOWEL HIATUS RESOLUTION VIA *w* INSERTION

- a'luwa* ~ Bambara *alua*, Wolof *alua*  
*'luwe'luwe* ~ Bini  $lu\epsilon_1lu\epsilon_3$   
*su'suwi* ~ Twi *nsusui*

This data clarifies that *w* only occurs to resolve hiatus after *u*. The two kinds of glide insertion observed in the Gullah West African vocabulary can be classed as phonetic following the cross-linguistic typology in Žygis (2010). They are likely phonetic responses to the lengthened formant transition of neighboring sounds in the vowel hiatus environment. The nature of the inserted glide is predictable from the preceding or following vowels. The context of [w] insertions implies adjacency of /u/, whereas the glide [j] is inserted in the context of local /i/, that is, there is agreement along the back/round articulatory parameter.

Etymological West African vowel hiatus can also transform into a falling diphthong if the corresponding diphthong occurs elsewhere in Gullah (i.e., /ɔɪ/ and /ɒʊ/).

## 12. HIATUS CHANGE TO DIPHTHONG

## a. Hiatus change to /vɪ/

- 'bɪdi ~ Bambara *baidi*  
 'ekvɪ ~ Umbundu *ekai*  
 'gɪvgvɪ ~ Yoruba *gɪ<sub>1</sub>gɪ<sub>1</sub>*  
 'gɪvmv ~ Mende *ɲgarmv*  
 nɪ 'four' ~ Fula *nai* 'four'

## b. Hiatus change to /vʊ/

- lvʊl'wila ~ Kongo *lvukwila*  
 'vʊma ~ Wolof *auma*  
 'vʊsa ~ Fon *ausa*

We see in (12) that adjacent vowels in the West African items, if they approximate historical West African forms, would have transformed into corresponding diphthongs in Gullah when the resulting syllable is stressed, as in 'bɪdi or unstressed as in 'ekvɪ. The last item in (12b) suggests that the diphthongs are sometimes influenced by raising characteristic of other varieties of English in close proximity to Gullah.<sup>6</sup> As Turner (1949, 21) describes the English-lexified vocabulary of Gullah, when diphthongs precede “a voiceless consonant, its first element is regularly advanced and raised to [ɛ].”

Vowel hiatus is also resolved through deletion, nearly always of the second vowel, although this strategy is rare in the Gullah West African vocabulary.

## 13. HIATUS RESOLUTION THROUGH VOWEL DELETION (RARE)

- a. he'leŋga ~ Mende *heilenga* (cf. lom'beyɪ ~ Mende *lomber*)  
 'hemv ~ Mende *herma*  
 be 'to clean' ~ Wolof *bei* 'to cultivate'  
 b. 'ɲna ~ Kongo *ɲina*

The examples in (13a) show deletion of the second vowel from the etymological word-internal hiatus. The datum in (13b) presents a rare case—deletion of the first vowel. Note that vowel deletion is a major strategy in African languages to resolve vowel hiatus, albeit across words (Casali 1997). In rare cases, vowel hiatus is resolved through consonant palatalization as in *sweŋ'ge ɲa* 'asthma' ~ Kongo *nswenɲenia* 'asthma'. On occasion, we observe multiple strategies operating in the same word, for example, both hiatus maintenance and diphthongization in *bv'akvɪ* ~ Vai *bɔ<sub>2</sub>kai<sub>3</sub>*.

Clements (2000, 125) and Batibo (2000, 143–44) note that diphthongs are rare in African languages. We can thus interpret diphthongization in the Gullah West African vocabulary as an influence of English or the English-based vocabulary in Gullah. Turner (1949, 21) describes the shifting nature of diphthongs versus adjacent vowels in the speech signal: “Two diphthongs have been noted in Kongo: [ai] and [au], but frequently the vowels in each

of these combinations are pronounced in separate syllables. Sometimes a faint *y* [j] is heard between [a] and [i] and a faint [w] between [a] and [u].” This confirms varying processes of vowel hiatus preservation (“vowels pronounced in separate syllables”), diphthongization, and glide insertion. However, Turner incorrectly ascribes diphthongs to more West African languages than do Clements and Batibo, who have far more experience in the languages in question than did Turner. Similarly, whereas Turner (1949, 21) postulates large sets of diphthongs for individual languages, such as Yoruba’s [ai, au, ei, eu, oi, oi, ia, io], the keyword *diphthong* receives no mention in Bamgbose’s (1966) grammar of Yoruba.

Although the above analysis is phrased in terms of vowel hiatus preservation versus diphthongization, the precise status of vowel hiatus versus diphthong is hardly material. What is crucial is the size and the nature of the attested inventory of adjacent vocoids. These can either be maintained, as in (9), affected by glide insertion, as in (10) and (11), or transformed to “true” diphthongs, represented by the phonetic symbols [ɔɪ], [ɛɪ], [ɒʊ], or [ɔʊ], as in (12). This latter set of symbols is reserved by Turner for the representation of diphthongs in the English-based vocabulary of Gullah. Thus, when we encounter them in the Gullah West African vocabulary, we can be fairly certain that we observe the transformation of a West African vocoid sequence to an English-style diphthong.

The preceding presentation has shown that adjacent vocoids in the West African forms underlying Gullah are subject to partial restructuring in Gullah. Crucially, vowel hiatus can be preserved, a clear phonological Africanism. It can also be resolved in several ways, most frequently through glide insertion or diphthongization, the latter process likely originating in English. We also find the African strategy of vowel deletion, albeit rarely.

NASAL + OBSTRUENT SEQUENCES. Mufwene (1985, 157) writes that “[i]n word-initial position [prenasalized stops in Gullah] have generally been reduced to simple stops” and presents the examples in (14) to support his point.

14. WORD-INITIAL NASAL + STOP AS PLAIN STOPS (Mufwene 1985, 157–58)

Kongo:	<i>mbadi</i>	Gullah:	<i>badi</i>
	<i>mbangu</i>		<i>bangu</i>
	<i>mfinda</i>		<i>finda</i>
Bobangi:	<i>mbando</i>		<i>bando</i>
Mende:	<i>ndivale</i>		<i>difale</i>
	<i>ndopo</i>		<i>dopo</i>

The items in (14) show that phonological restructuring concerning word-initial nasal + stop sequences has taken place in the West African vocabulary

of Gullah. Examples of this process are not limited to the personal names, but can also be found among the “words used in conversation,” as in *'bɔndɔ* ‘a basket’ ~ Kongo *mbɔndɔ* ‘a large basket’. However, these items can be juxtaposed to others in which etymological word-initial nasal + stop has been preserved.

## 15. RETENTION OF WORD-INITIAL NASAL + STOP SEQUENCES

- |    |                       |                                  |
|----|-----------------------|----------------------------------|
| a. | <i>mbazi'mene</i>     | ~ Kongo <i>mbazi mene</i>        |
|    | <i>m'bila</i>         | ~ Kongo <i>mbila</i>             |
| b. | <i>n'deda</i>         | ~ Twi <i>ndeda</i>               |
|    | <i>n'dɔkɔ</i>         | ~ Bobangi and Kongo <i>ndɔkɔ</i> |
|    | <i>n'dɔ</i> ‘to know’ | ~ Mende <i>ndɔ</i> ‘to find out’ |
| c. | <i>ŋ'gɔmbe</i>        | ~ Tshiluba <i>ŋgɔmbe</i>         |
|    | <i>ŋ'guzu</i>         | ~ Kimbundu <i>ŋguzu</i>          |

Nasal + stop combinations appear in a number of Gullah personal names as labials, as in (15a), as alveolars, as in the names and among the conversation words in (15b), and as velars, as in (15c). Thus, there is a contrast between the retained word-initial nasal + stop sequences in (14) and the restructured data in (15). This observation extends to nasal + fricative initial clusters.

## 16. RETENTION OF WORD-INITIAL NASAL + FRICATIVE SEQUENCES

- |    |                |                                   |
|----|----------------|-----------------------------------|
| a. | <i>'mwula</i>  | ~ Kimbundu and Kongo <i>mwula</i> |
| b. | <i>n'sɔle</i>  | ~ Kongo <i>nsɔle</i>              |
|    | <i>n'svye</i>  | ~ Twi <i>nsɔe</i>                 |
|    | <i>n'zala</i>  | ~ Kimbundu and Kongo <i>nzala</i> |
|    | <i>n'zamba</i> | ~ Kongo <i>nzamba</i>             |

## 17. WORD-INITIAL NASAL + FRICATIVE SEQUENCES AS PLAIN FRICATIVES

- |    |                 |                         |
|----|-----------------|-------------------------|
| a. | <i>wan'daji</i> | ~ Kongo <i>mwandaɟi</i> |
| b. | <i>se'diya</i>  | ~ Kongo <i>nsedia</i>   |
|    | <i>'siye</i>    | ~ Twi <i>nsiye</i>      |
|    | <i>'zandu</i>   | ~ Kongo <i>nzandu</i>   |
|    | <i>zɔ'lani</i>  | ~ Kongo <i>nzɔlani</i>  |

The data in (16) show that etymological nasal + fricative sequences may be preserved in the Gullah West African lexicon with labials, as in (16a), and with alveolars, as in (16b). On the other hand, the data in (17) show that these etymological clusters may also be restructured to appear as plain fricatives, regardless of whether the original sequences are labials, as in (17a), or alveolars, as in (17b). This variation can also be found with individual lexical items, as in *n'zambi* and *'zambi* ~ Kimbundu and Kongo *nzambi*. On rare occasions, we find vowel prothesis in items with etymological initial nasal + obstruent sequences, as in *in'wula* ~ Tshiluba *nvula* and *ŋ'kifi* ~ Kongo *ŋkifi*.

In these cases the etymological cluster is preserved through resyllabification across two syllables to result in *in.'wu.la* and *in.'ki.fi*, respectively.

The observed contrast between retention and transformation of etymological nasal + obstruent sequences supports the idea that phonological restructuring in the Gullah African lexicon can be partial or incomplete in the sense that certain segments or segment sequences can be transformed in some items but preserved in others. Turner (1949, 241) interprets the obstruent-cum-nasal sounds seen in (15) and (16) as “[t]he combination of initial nasal plus another consonant,” that is, as bisegmental. Turner’s use of stress marks appears consistent with this interpretation. Whenever the stop of the putative nasal + stop sequence is the onset of a stressed syllable, we find that Turner places a stress mark between the nasal and the stop, thus indicating two separate segments. Although combinations of nasal + stop may also appear as phonologically unitary segments in some languages, including in West African languages (see Riehl and Cohn 2011 for a recent discussion), we do not have evidence to question Turner’s interpretation of these sounds as biphonemic sequences. Thus, we should conclude that prenasalized stops do not exist as monosegmental phonemes anywhere in Gullah. Nasal + obstruent clusters persisted to the time of Turner’s field research, albeit not in all lexical items where they originally occurred.

LABIO-VELAR PLOSIVES. Turner (1949, 241) states that “[gb] and [kp], each articulated as one sound, are sometimes heard in the Gullah speaker’s pronunciation of African words containing these sounds.” He presents the following four examples.<sup>7</sup>

18. LABIO-VELAR PLOSIVES IN “SONGS AND STORIES” AND “CONVERSATION WORDS”
- a. *gbaj* (*kpaŋ*) ‘tightly’ ~ Mende *gbaj* (*kpaŋ*) ‘tightly, severely’
  - b. *gbla* ‘near’ ~ Mende *gbla* (*gbajŋga*) ‘near’
  - c. *kpaŋga* ‘the remains after some destructive force’ ~ Mende *kpaŋga* ‘a field burned before clearing’; ‘remains’
  - d. *wulisā'kpākpā* ‘woodpecker’ ~ Mende *wulisākpākpā* ‘woodpecker,’ lit. ‘to pound a tree vigorously’

Grasping the significance of the items in (18a)–(18d) requires awareness of Turner’s (1949, 30) transcription practice concerning the raised vertical bar: “Accent is indicated by the mark (') placed BEFORE THE SYLLABLE for the main stress” (my emphasis). Thus, the placement of the raised vertical bar in (18c) and (18d) indicates that the labio-velar *kp* is indeed monosegmental in these items. It represents the single consonantal onset of the stressed syllable. Were *kp* and *gb* bisegmental, that is, a cluster of the consonants /k/ and /p/ or /g/ and /b/, respectively, we would find the raised vertical bar placed

between them, as when Turner encodes heterosyllabic sequences of *k.p* and *g.b* with the correlates of West African /kp/ and /gb/ in medial position in the personal names, as discussed below.

We find (18a)–(18c) in Turner’s short list of “expressions heard only in stories, songs, and prayers” and the item in (18d) in Turner’s collection of “other words used in conversation.” We do not observe word-initial labio-velar plosives anywhere in the Gullah West African personal names. Instead, all corresponding West African forms with initial *gb* or *kp* appear in the Gullah personal names with *b* or *p* in initial position, respectively, as shown in (19).

19. LABIAL PLOSIVES AS REFLEXES OF INITIAL LABIO-VELARS IN WEST AFRICAN PERSONAL NAMES

- a. *ba'kali* ~ Mende *gbakali* (*kpakali*)
- b. *'bede* ~ Yoruba *gbe<sub>3</sub>de<sub>1</sub>*; Fon *gbede*
- c. *pa'lvti* ~ Yoruba *kpa<sub>2</sub>l<sub>2</sub>ti<sub>3</sub>*
- d. *'pende* ~ Mende *kpende*

The absence of etymological *gb* or *kp* in word-initial position, also noted by Mufwene (1985, 157), strongly indicates that labio-velar plosives did not occur in the Gullah West African personal names. The Gullah West African personal names lack these sounds as single segments, as we glean from the appearance of etymological *gb* or *kp* in word-medial position, as in (20a)–(20d).

20. TRANSCRIPTION OF MEDIAL LABIO-VELARS AS BISEGMENTAL

- a. *mag'brndt* ~ Mende *magbrndt*
- b. *og'boni* ~ Yoruba *o<sub>1</sub>gbo<sub>2</sub>ni<sub>3</sub>*
- c. *puk'pula* ~ Mende *kpukpula*
- d. *vk'pvtv* ~ Yoruba *v<sub>1</sub>kp<sub>2</sub>v<sub>3</sub>*

Mufwene (1985, 157) writes that “it is nowhere indicated whether or not in other positions [labio-velars] correspond to velar plus labial stops.” However, Turner placed the primary stress mark after the velar and before the labial component of the historical labio-velar plosives, as shown in (20a)–(20d). This means that he heard *gb* or *kp* in Gullah West African names as bisegmental and, specifically, as consonant sequences split as the coda of a preceding syllable and the onset of the following syllable. Syllabifications of Gullah names in (20a)–(20d) were therefore *mag.'brn.dt*, *og.'bo.ni*, *puk.'pu.la*, and *vk.'pv.tv*, respectively. By extension, *gb* or *kp* in unstressed position as in *'asigbe* ~ Ewe *a<sub>1</sub>si<sub>1</sub>gbe<sub>1</sub>* and *'tekpe* ~ Mende *tekpe* are probably bisegmental sequences of plosive consonants (i.e., as *'a.sig.be* and *'tek.pe*, respectively). Velar obstruents in coda position could be licensed through the occurrence of other obstruent codas in West African root words (see 4 above). That is, the new velar codas fit in with the maximal (C)(C)V(C) syllable template

of the Gullah West African vocabulary. In some personal names, however, labio-velar stops in the West African forms appear as labial stops in medial position in Gullah, just as they do at the beginning of words, as Mufwene (1985, 157) notes.

21. LABIAL PLOSIVES AS REFLEXES OF MEDIAL LABIO-VELARS IN WEST AFRICAN PERSONAL NAMES

- a. *a'rupε* ~ Yoruba *a<sub>1</sub>ru<sub>3</sub>kpe<sub>1</sub>*; *a'fipa* ~ Yoruba *a<sub>1</sub>fi<sub>1</sub>kpa<sub>2</sub>*; *e'pī* ~ Yoruba *e<sub>2</sub>kpī<sub>2</sub>*;  
*i'panda* ~ Vai *i<sub>3</sub> kpan<sub>3</sub>da<sub>3</sub>*
- b. *a'bafe* ~ Yoruba *a<sub>1</sub>gba<sub>1</sub>fe<sub>2</sub>*; *baŋbofe* ~ Yoruba *ba<sub>3</sub>ŋ<sub>2</sub>gbo<sub>3</sub>fe<sub>3</sub>*; *'jabata* ~ Yoruba *ja<sub>2</sub>gba<sub>2</sub>ta<sub>2</sub>*; *'jvbn* ~ Mende *nd<sub>3</sub>ɔgbv*; *bom'bobv* ~ Mende *bombogbv*

Most of the items in which medial /kp/ or /gb/ appear as /p/ or /b/ in the Gullah personal names are from Yoruba, but a few items from other West African languages can also be found.

Sensitivity to position in the appearance of correlates of West African labio-velars is apparent in items that feature labio-velars in initial and medial position in the Gullah West African personal names.

22. CHANGE VERSUS CONTINUITY IN INITIAL VERSUS MEDIAL LABIO-VELARS

- a. *'begbe* ~ Mende *gbegbe*; *'bigbi* ~ Fon *gbigbi*; *big'bada* ~ Fon *gbigbada*
- b. *'pikpɪ* ~ Mende *kɪkɪpɪ*; *puk'pula* ~ Mende *kɪpukpula*

Initial labio-velars appear as labials throughout, but presumably etymological medial labio-velars appear as sequences of velar + labial plosive across syllables, that is, in syllabifications such as *'beg.be* and *'pik.pɪ*. However, in many instances, word-medial labio-velars appear as labials, just as in initial position.

23. CHANGE IN WORD-MEDIAL LABIO-VELARS

- a. *a'bafe* ~ Yoruba *a<sub>1</sub>gba<sub>1</sub>fe<sub>2</sub>*; *'jabata* ~ Yoruba *ja<sub>2</sub>gba<sub>2</sub>ta<sub>2</sub>*; *'jvbn* ~ Mende *nd<sub>3</sub>ɔgbv*
- b. *'pampa* ~ Yoruba *i<sub>1</sub>kpa<sub>2</sub>ŋ<sub>2</sub>kpa<sub>3</sub>*; *i'wapele* ~ Yoruba *i<sub>1</sub>wa<sub>1</sub>kpe<sub>1</sub>le<sub>3</sub>*; *'lapejv* ~ Yoruba *la<sub>3</sub>kpe<sub>3</sub>jɔ<sub>2</sub>*

Word-medial etymological *gb* appears as *b* in (23a); analogously, West African *kp* is *p* in Gullah in the examples in (23b).

Labio-velar plosives are marginal as phones in Gullah. Significantly, there are no unambiguous occurrences of monosegmental labio-velars among the thousands of personal names derived from West African languages. They never appear in initial position in the names, but sequences of velar plus labial plosives do occur in medial position. Initial labio-velars could not be licensed to occur in the vast majority of cases. We can account for the appearance of the corresponding sequence of plosives in medial position if we assume that the words were resyllabified so that the syllable boundary

falls between the two segments to preserve some semblance of labio-velars. In other words, monosegmental labio-velars have been restructured as velar + labial sequences where English phonotactics allow. Such restructuring is only partial, however, as labio-velars appear only as the corresponding labial in some words, especially from Yoruba. Thus, monosegmental labio-velar plosives do not exist in Gullah other than as idiosyncrasies in the four items Turner adduced. Bisegmental correlates of West African labio-velar plosives survive in Gullah in medial position. In Sengova's (1994) terminology, we can call this an OPAQUE AFRICANISM.

NASAL VOWELS. Turner (1949, 16) mentions nasal vowels only once in his discussion of Gullah's English-based vocabulary, but the nasal vowels  $\tilde{i}$ ,  $\tilde{u}$ ,  $\tilde{a}$ , and  $\tilde{o}$  can be found quite frequently in these Gullah names, and  $\tilde{e}$  and  $\tilde{e}$  occur occasionally. However, Gullah does not exhibit nasality in vowels in all cases where corresponding West African forms do. Thus, nasal vowels are partially restructured in the Gullah West African lexicon.

Most of the items with nasal vowels come from Yoruba, but other substrate languages contribute, as well. The nasal vowels transcribed as  $\tilde{i}$ ,  $\tilde{u}$ ,  $\tilde{a}$ ,  $\tilde{o}$  contrast with their oral counterparts in Gullah. The  $\tilde{e}$  nasal vowel symbol occurs in Gullah only once in the following list, and that example is problematic, as the items are all culled from the "expressions heard only in songs and stories" (see note 7).

24. NEAR-MINIMAL PAIRS: NASAL VERSUS ORAL VOWELS

<i>a'kbrī</i> ~ Yoruba $a_2k\tilde{b}_2r\tilde{i}_2$	<i>a'kvnī</i> ~ Yoruba $a_2k\tilde{v}_2n\tilde{i}_2$
<i>a'kēri</i> ~ Yoruba $a_2k\tilde{e}_{:2}r\tilde{i}_3$	<i>a'kele</i> ~ Yoruba $a_1k\tilde{e}_{:3}l\tilde{e}_3$
<i>a'rāfv</i> ~ Yoruba $a_2r\tilde{a}_{:3}f\tilde{o}_2$	<i>a'rale</i> ~ Yoruba $a_2r\tilde{a}_{:3}l\tilde{e}_3$
<i>'bukū</i> ~ Yoruba $bu_1k\tilde{u}_3$	<i>'daku</i> ~ Yoruba $da_3k\tilde{u}_3$

The items in the left column in (24) are important because they demonstrate that we are dealing with real nasal vowels rather than vowels nasalized by assimilation in proximity to a nasal consonant. No nasal consonant appears in the Yoruba items in the left column. In fact, the transcription of phonemic nasal vowels contrasts with the absence of a nasalized vowel in the proximity of the alveolar nasal /n/ in the first item in the right column. Vowel nasalization likely also occurred allophonically as the result of assimilation from following nasal consonants, but Turner highlights contrastive nasal vowels in his transcription practice.

The modern professional literature on Yoruba agrees that the language features the five phonetic nasal vowels [ $\tilde{i}$ ,  $\tilde{u}$ ,  $\tilde{e}$ ,  $\tilde{o}$ ,  $\tilde{a}$ ]. It also agrees that high nasal vowels  $\tilde{i}$  and  $\tilde{u}$  are contrastive, but it is divided as to the distribution

of the three other nasal vowels (see Ward 1952; Bamgbose 1966). Sachnne (1997, 2011) writes that [ɛ̃] appears only in demonstratives like [jɛ̃] ‘that’ and [ijɛ̃] ‘that one’ and, hence, its phonemic status in Yoruba is questionable. This could explain the extreme rarity of mid front nasal vowels in the Gullah West African personal names apparently related to Yoruba. We should not be surprised for /ō/ to take the place of /ɔ̃/ in the Gullah names; this trend had already been shown for the oral vowels. We see examples of it in *a'kōrī* ~ Yoruba *a₂k₂rī₂* and *eni'mimō* ~ Yoruba *ε₂ni₂mi₂m₂ō₂*.

The nasal vowel /ō̃/ in corresponding Mende forms occurs in only two items in the Gullah inventory of West African personal names: *ko'hōne* ~ Mende *ko'hōne* and *ne'mahō* ~ Mende *ne'mahō*. We also find /ō̃/ in two Mende forms realized as /ū̃/ in Gullah: *per'wahū* ~ Mende *perewahō* and *tihū* ~ Mende *tihō*. The distribution of [ō̃] seems restricted in the Gullah/Mende names as it only occurs after /h/.

Overall, the nasal phonemic vowel inventory of /ī̃, ū̃, ō̃, ā̃/ with the replacement of the [ɔ̃] quality by [ɒ] is analogous to the oral vowels in the Gullah West African personal names. The existence of a substantial inventory of phonemic nasal vowels must be acknowledged as a distinct African continuity, especially from Yoruba. On the other hand, nasal vowels in the West African forms Turner presents often appear as oral vowels in the Gullah names.

#### 25. DENASALIZATION OF NASAL VOWELS

<i>'mumo</i>	~ Twi <i>mūmō</i> ; Gã <i>mū₂mō₂</i>
<i>vmv'lu</i>	~ Yoruba <i>ɔ₂m₂lu₂</i>
<i>'obidu</i>	~ Yoruba <i>o₂bi₂dū₂</i>
<i>'hihi</i> ‘owl’	~ Vai <i>hī₁hī₁</i> ‘owl’

The examples in (25) show that some of the nasal vowels found in West African forms do not appear in the African vocabulary of Gullah. Etymological nasal vowels sometimes appear as vowel + *n* sequences in Gullah.

#### 26. NASAL VOWELS AS Vn SEQUENCES

<i>a'run</i>	~ Yoruba <i>a₁rū₃</i>
<i>a'yanje</i>	~ Yoruba <i>a₁yā₁je₂</i>
<i>e'rinle</i>	~ Yoruba <i>e₂rī₂le₁</i>
<i>wvn'titi</i>	~ Yoruba <i>wā₁tī₁tī₁</i>

The data in (25) and (26) show that Gullah employs two strategies to restructure nasal vowels: loss of nasality and, less commonly, the transfer of nasality via insertion of a nasal consonant. Occasionally, we observe both restructuring processes in the same word, as in *'yimbv* ~ Yoruba *yī₁bō₂*.

Adapting Carrington's (1993) definition of *Africanism*, phonemic vowel nasality in the Gullah West African vocabulary is an African continuity, a

feature transmitted from a time when the users of Gullah or his or her historico-cultural community spoke a language or languages—especially Yoruba—indigenous to West Africa. Phonemic vowel nasality is manifest in relevant West African languages but not in English; it is therefore an Africanism in Gullah. However, vowel nasality has not been transferred in all instances. Its preservation competes with two phonological restructuring processes—vowel denasalization and transfer of nasality to an inserted nasal consonant. Thus, vowel nasality is partially restructured in the Gullah West African lexicon.

WORD PROSODY. Stress is pervasive in the Gullah West African lexicon even though the great majority of potential substrate languages—except Atlantic languages such as Wolof—are tonal. Although Turner frequently does not transcribe suprasegmental information in the West African forms he puts in relation to Gullah names and lexical items, we can glean many examples for the shift from tone to stress in the data presented here, which suggests a superstrate influence from English on the African vocabulary—already argued compellingly by Mufwene in several works already cited in this article—likely amplified because Wolof is also a stress language.

But if residual tone persists in the Gullah lexicon, it does so as an Africanism, and data from Turner's *Africanisms* suggest that it does. Recall that Turner's notation for tone is ■<sub>1</sub> = low; ■<sub>2</sub> = mid; ■<sub>3</sub> = high.

#### 27. TONAL CONTOURS

##### a. LLL; LLH

*bv<sub>1</sub>bv<sub>1</sub>bv<sub>1</sub>* ~ Kongo *bɔbɔbɔ*; *mbɔbɔbɔ*; Bini *bɔ<sub>1</sub>bɔ<sub>1</sub>bɔ<sub>1</sub>*

*e<sub>1</sub>re<sub>1</sub>lu<sub>3</sub>* ~ Yoruba *e<sub>1</sub>re<sub>1</sub>lu<sub>3</sub>*

##### b. HL

*ē<sub>3-1</sub>* 'yes' ~ Ewe *ē<sub>3</sub>* 'yes'; Ibo *ē<sub>3</sub>* 'yes'

##### c. LH

*ka<sub>1</sub>ri<sub>3</sub>* ~ Vai *ka<sub>1</sub>ri<sub>3</sub>*; *ka<sub>1</sub>ri<sub>1</sub>*; Yoruba *ka<sub>3</sub>ri<sub>3</sub>*

*a<sub>1</sub>li<sub>3</sub>* ~ Mandingo *ali*; Ewe *a<sub>1</sub>li<sub>1</sub>*; Hausa *a<sub>3</sub>li<sub>1</sub>*; Fon *ali*

*a<sub>1</sub>ti<sub>3</sub>* ~ Ewe *a<sub>1</sub>ti<sub>3</sub>*; Twi *ati*

*ko<sub>1</sub>fi<sub>3</sub>* ~ Twi, Ewe, Fante, Gã *ko<sub>1</sub>fi<sub>3</sub>*

Although other contours can be found, as shown in (27a), LH is most frequent in the group of Gullah items that show tone. It is not necessarily carried over faithfully, as the data in (27b) show. Instead, there seems to be a preference for the high vowel [i] to carry high tone in the Gullah items, even though this is not always so in the corresponding West African forms. Other languages that have arisen from restructuring can carry tone in words from substrate languages, even though the superstrate is stress-based. For

example, it has been reported for Cameroon Pidgin that “[w]ords from Cameroon indigenous languages come into Pidgin together with their tonal features” (Kouega 2008, 28). The difference between Cameroon Pidgin and Gullah is that tone in the latter has been preserved only in a fairly small number of items.

Tone is manifest in the great majority of West African languages but not in English. Its presence in Gullah is thus due to African influence. The influence is barely in evidence—the vast majority of items in the Gullah West African vocabulary carry stress as the word prosody—but its marginal presence is nonetheless historically and linguistically significant. Although Atlantic languages such as Wolof are also stress languages, it stands to reason that the dominance of stress in Gullah is driven by superstrate influence from English. The co-occurrence of tone and stress in the Gullah West African vocabulary shows that restructuring from mostly tone to stress was partial at the time of Turner’s field research.

CONTINUITIES FROM MENDE. Sengova (1994) identifies two West African continuities from his native Mende among Turner’s Gullah personal names that Turner misses. However, Sengova presents only the Mende forms and not their Gullah equivalents, which makes it difficult to evaluate his argument. The first Africanism he notes concerns the postposed definiteness marker *-i*. Mende glosses are shown to illuminate the morphological relations. All items are given in Turner’s phonetic transcription.

28. MENDE DEFINITENESS MARKER

- |    |                |                                      |
|----|----------------|--------------------------------------|
| a. | <i>ʒowo</i>    | ~ <i>ndʒowo</i> ‘sweet potato’       |
| b. | <i>joʔweyi</i> | ~ <i>ndʒoweri</i> ‘the sweet potato’ |
| c. | <i>ʔvwa</i>    | ~ <i>kvwa</i> ‘great war’            |
| d. | <i>ʔvmai</i>   | ~ <i>kvwai</i> ‘the great war’       |
| e. | <i>ʔkamba</i>  | ~ <i>kamba</i> ‘grave’               |
| f. | <i>kamʔbei</i> | ~ <i>kamber</i> ‘the grave’          |

Items (28a)–(28d) are from the personal names; items (28e) and (28f) are from the “expressions heard only in stories, songs, and prayers.” Although Turner has *ʔbegbe* ~ Mende *gbegbe* (*kpegbe*) ‘frog’, no correlate for Mende *kpegbei* ‘the frog’ can be found among Turner’s data, in contrast to Sengova’s list. Turner transcribes the definiteness marker inconsistently, twice as [ɪ] and once as [i], but the marker in whatever realization is a significant Africanism, not least because Mufwene (1985, 160) warns that the personal names “as evidence of [Gullah’s] putative linguistic Afrogenesis must be supported by other kinds of evidence, essentially grammatical,” and a Mende relic of definiteness might by a hair’s breadth over that bar.

Sengova (1994) also argues for the existence of Mende morphophonological consonant mutation in Gullah.

29. MENDE CONSONANT MUTATION

- a. i. *'bimε* ~ *bimε (pimε)* 'to run'
- ii. *'pimε* ~ *bimε (pimε)* 'to run'
- b. i. *'goli* ~ *goli (kɔli)* 'leopard, greedy person'
- ii. *'kɔli* ~ *goli (kɔli)* 'leopard, greedy person'
- c. *'lahi* ~ *lahi (ndahi)* 'advise, caution'
- d. *'begbe* ~ *gbegbe (kpegbe)* 'frog'

The variable forms in (29a) and (29b) suggest that a reflex of Mende consonant mutation survived in Gullah up to the time of Turner's research; yet, the multiple Mende forms adduced in Turner and cited by Sengova (1994) in (29c) and (29d) appear only as singletons in Gullah. In addition, Sengova (1994:11) remarks that some Mende items in Turner's texts include "errors," particularly where initial consonants appear that are not expected from the normal consonant mutation grid. Thus, the amount of available data is too small to establish a pattern. The available evidence for umlaut and consonant mutation for Mende items in Gullah is suggestive but ultimately inconclusive. Suffixal definiteness marking is more impressive evidence of Africanism, but it is the only fortifying nonphonological evidence detectable in Turner's data.

Table 1 juxtaposes the retention of West African phonological features with the patterns of partial restructuring identified in the Gullah West African lexicon thus far. Table 1 also displays the patterns investigated in Mufwene (1985). I have placed the patterns diagnosed as Anglicisms in Mufwene

TABLE 1  
Phonological Africanism and Restructuring in the Gullah West African Lexicon

<i>West African</i>	<i>Partial Restructuring</i>	<i>English</i> ( <i>Mufwene 1985</i> )
Palatal nasal /ɲ/	Preservation/alteration of adjacent vocoids (Mufwene 1985)	v ← ɔ
Absence of [ə] and [ʌ]	Preservation/alteration of nasal + obstruent (Mufwene 1985)	β ← v, w
Syllable type inventory V, CV, CVC, CCV, VC	Preservation/alteration of labio-velars: initial position: alteration (Mufwene 1985); medial position: preservation/alteration Nasal vowels/denasalization Tone/stress	(f, g ← φ, γ)

(1985) in the partial restructuring column when preservation was found to compete with alternation in the preceding presentation. Three of Mufwene's patterns, shown in the right-most column of table 1, are arguably of English origin. However, discussion immediately below will show that the candidate for change given in parentheses in the column labeled English is compromised. This leaves us with only two patterns where English influence appears categorical. While we must admit that African retentions are prominently in evidence in the phonology of the Gullah West African vocabulary, we can accept the categorical change of [ɔ] to [ɒ] as due to superstrate influence. If West African influence had been paramount, we would expect [ɔ] to appear in Turner's description of Gullah because phonemic [ɔ] is frequently found in West African languages whereas [ɒ] is not. Furthermore, there appear to be British Isles models for the merger of [v, w] to the bilabial fricative [β]. It is listed as a prototypical feature of Cockney English in Hickey (2004) and labeled a Cockney feature in Cassidy (1978). Assuming, following Turner (1949, 242), that there are also West African models for it, it may be a case of phonological convergence, where superstrate and certain substrate languages provide suitable bases for the observed pattern and may have cooperated in it. The change from [ɣ] to [g] could indeed have been motivated by English, but the number of West African forms Turner lists with the voiced velar fricative is very small. Hence, the change Mufwene (1985) points out appears to be of minor impact. It seems that he misunderstood the transcription system Turner used for the Gullah West African vocabulary as far as the symbol *f* is concerned. Although Turner uses this character throughout, it is intended to represent "the voiceless bilabial fricative [ɸ]" (Turner 1949, 305n27), so in fact this feature may not have undergone change.

## DISCUSSION

PERSISTENCE OF AFRICAN PERSONAL NAMES. Mufwene (1985, 158) argues that "Turner's Africanisms are loans adopted AFTER the creole formation stage of Gullah" (emphasis added), such that English's superstrate influence was well established, and new substrate material would then accommodate to English norms. Mufwene (1992) places the critical period for the formation of Gullah between 1720 and 1740, when Africans became a majority in what is today coastal South Carolina (Wood 1974), yet the settlement of Charleston by English settlers began in 1670. Evidence of day names used within the critical period might lead us to conclude that West African names and naming practices had persisted into the critical period from before.

Though the forms Turner records would result from reconstruction along English lines, vestiges of Africanism may still have survived those processes.

For instance, we can extract documentary evidence to show that African personal names existed in the Gullah region before the critical period. Runaway slave advertisements from the weekly *South Carolina Gazette* (Windley 1983) in the 1730s and 1740s include personal names of African origin. Most of the names of captured Africans and their descendants in Windley (1983) look English, and we must be cautious of names of ambiguous origin, such as *Pho(e)be* (f.)/'*fiba* (f.), *Bella* (f.)/'*bila* (f.), and *Walley* (m.)/'*wali* (m.), but as the list below shows, some are undoubtedly West African. Doublets are not listed unless additional information is given about the person named, as in *Cojo* and *Cudjo* below. The names are ordered chronologically and are presented according to their first occurrence in the *South Carolina Gazette* and are juxtaposed to the corresponding entries in Turner. Entries include place of origin, age, and English-speaking ability where such information can be gleaned from the ads.

### 30. WEST AFRICAN PERSONAL NAMES OF RUNAWAY SLAVES

- Cuffe* (m.) ("Gold Coast Negro"; Aug. 19–26, 1732) ~ *ko<sub>1</sub>fi<sub>3</sub>* (m.) 'name given a boy born on Friday'
- Sambo* (m.) (Sept. 9–16, 1732) ~ *sambo* (m.) 'name given the second son in a family'
- Juba* (f.) (Apr. 14–21, 1733) ~ *juba* (f.) 'female personal name'; corresponding forms from multiple West African languages
- Quacco* (m.) ("speaks English very well"; July 28–Aug. 4, 1733) ~ *kwa<sub>1</sub>ku<sub>3</sub>* (m.) 'name given a boy born on Wednesday'
- Quamino* (m.) ("speaks English very well"; July 28–Aug. 4, 1733) ~ *kwame/kwami* (m.) 'name given a boy born on Saturday'
- Cojo* (m.) (13-year-old boy, "this country born"; Nov. 16–23, 1734) ~ *ko<sub>1</sub>jo<sub>3</sub>* (m.) 'name given a boy born on Monday'
- Obbah* (f.) ("woman [...] this country born, speaks good English"; Feb. 1–8, 1734–35) ~ '*vba* (m.) 'king, monarch, ruler'
- Esham* (m.) ("little English"; Feb. 15–22, 1734–35) ~ '*ifã* (m.) 'one of the Western Sudanic languages of the Kwa group'; cf. *Ishan* [ish] in Lewis (2009)
- Pendar* (f.) (May 17–24, 1735) ~ '*penda* (f.) 'female personal name'
- Quaw* (m.) ("aged about 28 years; speaks very good English"; Sept. 20–27, 1735) ~ *kwa* (m.); corresponding forms from multiple West African languages
- Tulah* (f.) (mother "to young Negro woman [...] who speaks good English"; June 26–July 3, 1736) ~ '*tula* (f.); corresponding forms from multiple West African languages

- Bealler* (f.) (Sept. 25–Oct. 2, 1736) ~ *'bila* (f.); corresponding forms from multiple West African languages
- Cudjo* (m.) (“Angola fellow [...] has been about two years in the country”; Mar. 12–19, 1737) ~ *ko<sub>1</sub>Jo<sub>3</sub>* (m.) ‘name given a boy born on Monday’
- Cubba* (f.) (“a Negro girl [...] about 14 years of age”; Apr. 30–May 7, 1737) ~ *'kaba* (f.); corresponding forms from multiple West African languages
- Bocarrey* (m.) (a “Gambia Negro”; Oct. 19, 1738) ~ *ba'kari* (m.) ‘name given the second son’
- Santry* (m.) (“Angola Negro fellow”; July 5–12, 1740) ~ *'sanji* (m.) ‘hen; marimba’

The data in (30) show original West African names with minimal changes to their phonology, as inferred from the spelling. Day names are a dominant pattern in these early examples; another emerging type refers to birth order. They also occur as calques, such as *Monday*, the name of an African man who emancipated himself between April 29 and May 6, 1732.

The data in (30) show that West African personal names existed both as heritage of a person’s birth in Africa (“Gold Coast Negro”) and as a cultural and linguistic emblem despite birth in the South Carolina colony (“country born”). *Obbah* seemingly detours from the gender norm reported for *'vba* by Turner, whose evidence apparently restricted the West African name for a monarch or ruler to men, though on the evidence here, it could also be given to a woman. This practice is likely grounded in another meaning of *Oba*, the goddess of the river *Oba* in Yoruba mythology (see Bascom 1976). The case of *Cojo* is particularly interesting because unambiguous information as to his birth year and place of birth “in this country” is provided. Thirteen years old in 1734, he must have been born in 1720 or 1721. If West African names were given at birth, then such names are attested in the 1720s. Labels such as “speaks English very well” indicate either birth in America or capture from Africa in early childhood; thus, we can conclude from the case of 28-year-old *Quaw* that West African personal names existed in South Carolina from 1710 onward.

Data on early West African personal names in (30) suffice to show that such names belonged to African captives and persons of African descent born in America during and before creole formation. Also, recall that Gullah is first mentioned in print regarding an African called *Golla Harry*, who self-emancipated in May of 1739. That is, the name of the creole language itself is attested in its formative stage. Although we do not have direct evidence from 1670 to the first decade of the eighteenth century, we can safely conclude that West African personal names were not late arrivals in South Carolina. In fact, it seems likely that such names could be heard from the first days of the South Carolina colony, certainly from about 1710.

The African slave trade continued illegally until the eve of the Civil War. The slave ship *Wanderer* landed the last cargo of about 400 African captives at Jekyll Island off the coast of Georgia in 1858 (Wells 1967). Yango, the last living *Wanderer* captive, died in 1920, according to “Wanderer Survivors” on the website of the Jekyll Island Authority (2011). He obviously bore a non-English name. Turner records no comparable name, although there are some plausible candidates, including *'yago*. Wells (1967, 37) reports that two *Wanderer* captives, Gumbo and Cuffee, were held in Savannah, Georgia, in 1858 as evidence in the trial of the *Wanderer*'s owner, captain, and crew. The West African name *Cuffee* is encountered as *Cuffe* already in 1732. *Gumbo* ostensibly derives from the Gullah West African name *'gɔmbɔ* (m) ~ Kongo *ngɔmbɔ* ‘witch doctor’s charm’ given in Turner. Persons taken directly from Africa to South Carolina or Georgia as adolescents or adults had doubtless been given African names at birth and lived the early part of their lives according to African traditions and, hence, can be considered to have been carriers and agents of West African name giving traditions. Turner’s informants were born in the 1840s—for example, Samuel Polite was born in 1844 (Turner 1949, 309n8)—or later, and we can surmise that they may have had contact with native Africans of the last generation of captives. Thus, we can assume a continuous presence of persons with African names and with direct knowledge of African languages and naming practices from the earliest days of the South Carolina colony to the first couple of decades of the twentieth century.

Given all of this, it is perhaps not surprising that West African personal names should have existed in considerable quantity among Gullah speakers when Turner did his fieldwork in the 1930s. The historical evidence from the 1710s onward—see also Nichols’s (2009) reconstructed scenario of multilingualism for Charles Town in 1715, which includes African languages—discredits the idea that the African names were somehow late additions in the development of Gullah as a creole language. Based on their attested ubiquity up to the 1930s—except perhaps in the seventeenth century—and their presence in the linguistic competency of Africans at any point in time, such names were part of the colonial linguistic landscape from the beginning.

STATUS OF LOAN PHONOLOGY IN THE CREOLE LEXICON. Mufwene (1985, 158) claims that “Turner’s Africanisms are LOANS adopted after the creole formation stage of Gullah” (emphasis added) in order to explain the putative absence of West African phonology in the Gullah West African vocabulary. The idea is that the sound system of Gullah was firmly established and nearly or completely like English when the culturally African names were adopted by the creole speakers. One needs to examine the notion of loan phonology

more closely in this context. In their recent authoritative volume, Calabrese and Wetzels (2009, 1) elaborate on scenarios in which word borrowing can occur:

[T]he borrowing may be implemented by a bilingual speaker that fills a gap in one of the languages he knows, L1, the recipient language, by taking a word from the other language he knows, L2, the donor language. [...] If the surface representation of the word is generated by using the phonological, or more generally, the grammatical system of L1, the word undergoes adaptations and adjustments and is nativized according to the grammar of L1.

They continue: “The alternative is that the surface representation of the word is generated by using the L2 grammatical system” (Calabrese and Wetzels 2009, 1n). This account does not apply to the formation of a creole language because a creole language—or any new language for that matter—is not established at the time of its formation, by definition. The above scenario, and others that could be cited from the loan phonology literature, assumes two established languages in contact and is thus perpendicular to creole formation. Smith (2007) uses the concept of loanword phonology in his discussion of contact phonology only with established languages, such as English and Dutch, Spanish and Quechua, and English and Hawai’ian. Africans plausibly just maintain African words in the formative stage of the creole language rather than loan them to the creole. Interestingly, Calabrese and Wetzels’s scenarios allow for the unaltered pronunciation of words from the donor language in addition to adaptations and adjustments. Thus, variation as to the exact phonological properties of loaned words is expected. They can, in fact, be altered or maintained.

Mufwene’s conception of loan words the Gullah West African vocabulary only works for West African words encountered after the creole language was formed. Smith (2008) argues for such adstrate influence through a comparison of Gullah with its sister language Afro-Seminole Creole. The story of the *Wanderer* also makes clear that Gullah-speaking communities were continually in contact with Africans, and thus Gullah was potentially subject to adstrate influence. English-speaking planters continued to initiate estates well after the 1720–40 Gullah formation phase. One case in point is the plantation established by Thomas Spalding on Sapelo Island, Georgia, in the first years of the nineteenth century. To jump start his operation, Spalding used a West African Muslim as foreman, the famous Bilali of Sapelo Island (see Austin 1984; Crook 2007), to whom the black community on Sapelo Island can trace its ancestry to this day (Bailey 2000). Bilali undoubtedly brought his native competency in West African languages to the founding black community on Sapelo Island (see Greenberg 1940), including his own

name, which Turner presents as *bi'lali* ~ Mandingo *bilali* 'the first muezzin, son of Ali'. His wife's name is given in the records as Phoebe, which is very likely an anglicized rendition of the West African name given to girls born on Friday, which Turner gives as *a<sub>1</sub>fi<sub>3</sub>ba<sub>3</sub>*. In sum, evidence for potential adstrate influence is abundant, but it is also clear that competency in West African languages was present in the formative stages of Gullah, that is, as substrate influence.

## CONCLUSION

This article aims to make a substantive contribution to the linguistics of the African diaspora in America by addressing the question of how much of the phonologies and phonomorphologies of West African languages are evident in the structure of West African words in Gullah. Details gleaned from Turner's *Africanisms in the Gullah Dialect* confirm that Gullah is a "repository of Africanism," to borrow an expression from Gullah community elder Emory Campbell (pers. comm.).<sup>8</sup> West African phonology is a persistent component of Gullah West African lexicon reported by Turner. Though we cannot deny the English influence for which Mufwene (1985, 2008) has argued so persuasively, clear evidence of Africanisms emerges when we consider a wider set of linguistic and associated sociohistorical phenomena.

We have traced two types of phonological continuities from West African languages into the Gullah lexicon. The phonemic distribution of the palatal nasal and the absence of [ə] and [ʌ] vowels within Turner's inventory of personal names and in the "expressions heard only in stories, songs, and prayers" align with those features in the great majority of potentially contributing West African languages but are not expected from relevant varieties of English. The specific syllable types found in the Gullah West African vocabulary matches that of West African languages exactly. Other areas of the phonology of the West African lexicon of Gullah appear restructured on English patterns, but only partially so. Thus, African forms stand alongside entries seemingly affected by English phonology throughout this vocabulary.

Five phonological environments have been shown to participate in this partial restructuring: adjacent vocoids, nasal + obstruent sequences, labiovelar stops, nasal vowels, and the prosodic parameter of stress versus tone. Two variable patterns of phonological restructuring in the "other words used in conversation" are not found elsewhere in the West African vocabulary of Gullah: final vowel elision and the appearance of central vowels. The distribution over different portions of the vocabulary vindicates Turner's three-part functional division of it, on one hand, but also supports the idea of partial

restructuring as the prevalent process of change in the Gullah West African lexicon. In short, the Gullah West African lexicon is a significant locus of creole hybridity.

Historical evidence of West African names and, by extension, words pronounced by native speakers of West African languages antedates the formative period of Gullah (1720–40); such material represents a lexical and phonological substrate. The kidnapping of West Africans and their forced transportation to the Gullah-speaking area continued until 1858, so that lexical and phonological adstrate influence is certain. Given the length of time between the creation of Gullah by its speakers in the first half of the eighteenth century and Turner's field research in 1930s—pretty much 200 years exactly—we anticipate phonological change in the West African layer of the Gullah lexicon, but that does not mean all vestiges of Africanism have disappeared from the lexicon.

West African phonology that survived in Gullah as Turner recorded it should be understood as an act of identity or a pattern of conscious linguistic agency along lines established by Le Page and Tabouret-Keller (1985), Labov (2010, §9.5), Hinrichs and Farquharson (2011), and Faraclas (2012). Persistent Africanism, in spite of phonological restructuring under pressure of English, was valuable because it allowed Gullah speakers to sound different from other speakers in the Gullah-speaking region. Such acts of identity require a high degree of social awareness and motivate linguistic behavior. Turner suggested that Gullah speakers shielded the West African personal names he recorded from outsiders as much as they could—they were aware of the names' distinctiveness, as they were also likely aware that songs and stories such as those Turner extracted from interviews were exclusive to Gullah culture.

In support of distinct phonological profiles for personal names, Nemer (1987) found in her study of Temne, a substrate language of Gullah in Sierra Leone, that exceptions to the core, restructured phonology of a language can persist because they have acquired expressive meaning. Thus, maintenance of distinct sound structures in certain parts of the Gullah lexicon, especially names, could be supported by a West African model. Gullah speakers were sufficiently conscious of the special nature of the Gullah West African personal names and the West African heritage words used in stories, prayers, and songs for that awareness to motivate preservation of more West African phonology in those components of the Gullah lexicon than elsewhere.

## NOTES

In the summer of 2013, on the recommendation of two referees, *American Speech* provisionally accepted the article published here, but Professor Klein was unable to revise it before his death on November 17, 2014, after an extended illness. Because it was accepted while I was still editor of the journal, I agreed to prepare it for publication. Professor Klein's original submission was praised by one referee as "a very fine paper that undertakes an overdue, scholarly mining and analysis of data" presented in Turner (1949) and "thus fills part of the very large gap between description and analysis in Turner's book"; the other referee recommended publication because "the author is returning with a lot of substance to a topic that is central to understanding the emergence of Gullah and deserves more attention." Both referees, however, found much to criticize about the manuscript. In the course of revision, I have taken their criticism into account as much as possible without altering the fundamental purpose of the article, exactly as I would have insisted Professor Klein should do had he been able to revise the article himself while I was still editor of this journal. Of course, we might have negotiated over certain points, but I cannot predict which points and must simply hope that, in following the referees' advice closely, I have revised in ways that Professor Klein would have approved or, at least, would have accepted. Unfortunately, I cannot answer all the questions posed by the referees without Professor Klein's help; thus, some points on which the referees disagreed with Professor Klein remain as he wrote them.

Often, authors acknowledge their debts to anonymous referees in a note, but in this note, it is the editor who is grateful for generous and incisive advice from referees he knows, but who remain anonymous publicly. As in the case of many a submission, the article was, as provisionally accepted, loose in its style and sometimes unclear or confusing. In this regard, I have revised the text as I would have done in any case—I would not have allowed Professor Klein to dilute his argument with a wash of unnecessary words. Professor Klein's original essay included no notes—all notes are editorial.

1. It may be most correct to refer always to "Turner (1949)," but since *Africanisms in the Gullah Dialect* is the only work of Turner's cited in this article, I have omitted the date in general statements of Turner's intentions, methods, and so on. Specific citations include date and page(s), as expected.
2. Presumably, Mufwene would take a different view of the problem, perhaps even questioning the need for reconciliation. The claim about Turner and Mufwene at opposite ends of a cline is overstated, in my view, and, it must be stressed, is only credible on the narrow point of continuity, but it is Klein's claim. Mufwene (1985, 154) seems less Turner's opposite when he announces, "I do not intend to suggest that Afro-Americans did not contribute anything to their current speech patterns in the New World, nor that everything attested in their speech is a copy of white speech. In fact, they would have contributed as much as any

other non-native group learning English then, particularly with as much eagerness as they allegedly had to acquire English,” a position that looks forward to and is consistent with Mufwene’s Founder Principle (2001, 25–80). As Mufwene once forcibly titled a book chapter, “The Universalist and Substrate Hypothesis Complement One Another” (1986; see also 1985, 156), because “[t]here would have been room for African linguistic influence on these new contact languages [including Gullah] even if other alternatives to this version of Afrogenesis were assumed” (Mufwene 1985, 155). So, the question may not be one of competition between Turner’s and Mufwene’s views, but whether vestiges of West African language continuity into Gullah can be teased from the complex and unfortunately unhistorical material Turner amassed and filtered into Africanisms.

3. Professor Klein tended to identify etymological relationships where none can be proved. I have retained statements about the general etymological relationships between Gullah and West African languages, because the West African input is beyond doubt. I have resisted any attempt to claim West African words as etyma for Gullah reflexes, however, because those Turner records are roughly contemporary with his Gullah forms and in many cases are unlikely to be identical with the historical forms from which Gullah items and indeed Turner’s West African material derive. Significantly, Turner never refers to the relationships among forms he presents as etymological—though linguists writing about Africanisms sometimes suggest that he does (e.g., Mufwene 1985)—even though he illustrates compellingly the West African heritage of much Gullah vocabulary. He defends the proposition that Gullah included linguistic survivals from West African languages (see Mille and Montgomery’s [2002, xxviii] introduction to the 2002 reprint of Turner’s 1949 *Africanisms* and, of course, the bulk of the volume), asserting of his lists of words used in everyday Gullah conversation and those used in songs, stories and prayers that they “are significant [...] not only because of the separate words in them that are of African origin but also because of the interesting combinations of African words that have remained practically unchanged in meaning and pronunciation since the Gullahs were brought to South Carolina and Georgia as slaves” (Turner 1949, 42–43). But, Mille and Montgomery (2002, xlii) insist, “Turner was cautious when comparing meanings and forms for a variety of reasons. He faced a two-hundred-year time gap for African languages” and words are prone to “shifting meaning or developing more than one meaning over a short period of time. No matter how conservative a language may be or how ‘isolated’ its speakers, it changes constantly,” a truth operating in both Gullah and the West African languages Turner compares. Thus, in some instances readers will find claims incorporating the term *etymological*, but I have usually changed the terms *etymon* or *etyma* to some version of correspondence (i.e., *correspondent form*, *correspondences*), and I have replaced Klein’s ←, which indicates a classic etymological relationship between two forms, with ~, to indicate a correspondent relationship between them. The exceptions are when Klein points out the absence of a West African etymon for a Gullah form or feature, which, after all, is transparently true.

4. According to Mille and Montgomery (2002, xiv–xv), Turner conducted interviews with Gullah speakers “from June to December 1932 and the summer of 1933. [...] In his initial year of work, Turner interviewed twenty-one Gullah speakers” and “[f]or each speaker he filled a notebook with extensive notations on their pronunciation, vocabulary, and grammar. [¶] In the course of his work Turner made one hundred wire recordings of Gullah speakers, many of which are transcribed in [the] appendix [to *Africanisms*], ‘Gullah Texts’ (pages 256–89), a collection of stories, chants, testimonies, and recollections.” Given this record, Gullah speakers were not characteristically reticent with Turner.
5. Although internal vowel hiatus may be generally avoided in English phonotactics, it plays a role in American English phonotactics through Gullah and other North American creoles involving African languages. Internal hiatus is simply a pause or break in sound between vowels within a word’s structure, resolution of which may involve a glide and (in English) diphthongization or vowel deletion. For instance, *a-ight* ‘all right’, originally African American in use, first exhibited internal hiatus, as indicated in forms recorded in *Green’s Dictionary of Slang* (Green 2010, s.v. A-IGHT): *a-ight* (1994) and *a’ight* (1997). Later evidence, however, suggests restructuring along expected lines: *aiite* (1999) and *ai-ight* (2002), indicating diphthongization, and *ight* (1997–2000) and *aight* (2007), indicating vowel deletion. External hiatus, a pause or break in sound between word final and word initial vowels, is regularly allowed in English; it allows us to distinguish the vowels in the phrase *regularly allowed*.
6. Klein originally proposed that the last item in (12b) exhibits Canadian raising, which overlooks the status of relevant vowels in coastal South Carolina and Georgia, as recorded in Kurath and McDavid (1961) more or less at the time of Turner’s fieldwork (McDavid began conducting fieldwork for the Linguistic Atlas project as early as 1941, less than a decade after Turner’s research into Gullah had begun; see Dil [1980, xii]). Kurath and McDavid present evidence of a raised vowel in *out* in Georgetown, S.C. (1961, 91), Columbia, S.C. (1961, 95), and Savannah, Ga. (1961, 98); see also Kurath and McDavid (1961, 110 and map 29).
7. One must consider these examples carefully. On one hand, as Cassidy (1983) argues, the words from songs and stories belong to a special register and may not represent everyday Gullah well. On the other hand, within that register they may maintain historical characteristics as part of the narrative ritual, so may count as especially helpful to the argument proposed here.
8. Usually, we would include information on Klein’s correspondence with Emory Campbell among the reference, but in this case, we cannot do so, because we do not have access to Klein’s papers. Though we cannot confirm or fully source the quoted phrase, it seems harmless to print it, as well as the attribution.

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THOMAS B. KLEIN, a native of Germany who took his doctorate from the University of Delaware, taught at Georgia Southern University for more than a decade. He specialized in Gullah/Geechee and other creole languages and Chamorro, the indigenous language of Guam and the Northern Mariana Islands. He translated Lorenzo Turner's original Gullah/Geechee recordings. Among other works, he was coeditor of *Simplicity and Complexity in Creoles and Pidgins* (with Nicholas Faraclas, Battlebridge, 2009). He died, after a long illness, on November 17, 2014.

MICHAEL ADAMS is Provost Professor of English Language and Literature at Indiana University and president-elect of the American Dialect Society. His latest book is *In Praise of Profanity* (Oxford UP, 2016). E-mail: [adamsm@indiana.edu](mailto:adamsm@indiana.edu).