Appalachian English in southern Indiana? The evidence from verbal -s

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ABSTRACT

In this article, the variable use of verbal -s with (especially, third-person) plural subjects is examined in extreme south-central Indiana. The patterns observed are compared to the same in several varieties of Appalachian English, and it is argued that the local language variety reflects the morphosyntactic stability of the linguistic system brought here by pioneer settlers from various Appalachian states some 200 years before. A very small pilot-study corpus of comparable data from the extreme northwestern corner of Indiana is called on to help refute a “universalist” explanation for the similarities found in southern Indiana and Appalachia. Finally, the conditions surrounding the transplantation of Appalachian English to Kentuckiana and to other places (i.e., the Ozarks, North Carolina’s Outer Banks) are considered, and questions are raised about the degree of isolation believed to be necessary in the respective communities.

In sociolinguistic research on English dialects, and particularly American English dialects, verbal morphology has occupied a diachronically privileged position. For instance, one of the most investigated features—if not the single most investigated feature—in the quest to uncover the origins of African-American Vernacular English (AAVE) has been the verb phrase. Is variable copula absence in AAVE a remnant feature of an earlier creole or does it result from the former slaves’ contact with European settlers who were, themselves, nonstandard speakers? Likewise, what does the frequent but variable absence of third-person singular (3sg) -s suggest, if anything, about the history of this dialect?

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Spurred on by such questions, a number of researchers, looking at a number of different types of evidence representing a number of different periods of AA(V)E, have examined variable subject–verb agreement in the hopes of clarifying the past trajectory of changes in, and ultimately the original state of, that variety of English (e.g., Brewer, 1986; Childs & Mallinson, 2004; Cukor-Avila, 1997; Labov, Cohen, Robbins, & Lewis, 1968; Montgomery, Fuller, & DeMarse, 1993; Myhill & Harris, 1986; Pitts, 1981; 1986; Poplack & Tagliamonte, 1989; 2004; Schneider, 1983; Tagliamonte & Smith, 1999; Van Herk & Walker, 2005; Viereck, 1995; Wolfram, 1969). Others have looked, instead, at various British dialects and/or their descendants in the Americas to better elucidate what the English that the former slaves came into contact with might have been like (e.g., Bailey, Maynor, & Cukor-Avila, 1989; Clarke, 1997; Godfrey & Tagliamonte, 1999; Wright, 2001).

Still other studies have investigated subject–verb concord for its own sake, without concern for either early AAE or the varieties that it came into contact with. Some of these are primarily concerned with a range of theoretical issues associated with agreement marking (Aniya, 1992; Börjars & Chapman, 1998; Butters, 1973; Henry, 1995; Meechan & Foley, 1994; Morgan, 1972; Pietsara, 1988; Pooley, 1934; Strang, 1966), whereas others aim to observe a given variety at multiple times and/or locations to better understand dialect stability and innovation (Britain & Sudbury, 2002; Christian, Wolfram, & Dube, 1988; Hazen, 1996; 2000a; Kytö, 1993; Montgomery, 1994; Nevalainen, Raumolin-Brunberg, & Trudgill, 2001; Wolfram & Schilling-Estes, 2003; Wright, 2002). More often, though, the goal is to describe and analyze the variation attested in a particular dialect, be it in England (Anderwald, 2001; Britain, 2002; Cheshire, 1982; Schendl, 1996; Tagliamonte, 1998), in America (Ellis, 1994; Schilling-Estes & Wolfram, 1994; Trüb, 2006; Wolfram, Hazen, & Schilling-Estes, 1999), or elsewhere, such as Australia (Eisikovits, 1991), Ireland (McCafferty, 2003; 2004), New Zealand (Hay & Schreier, 2004), Scotand (Smith & Tagliamonte, 1998), or Tristan da Cunha (Schreier, 2002). In the specific context of America, subject–verb agreement has also been scrutinized in ethnic dialects other than AAE, including Cajun Vernacular English (Dubois & Horvath, 2003), Lumbee Vernacular English (Dannenberg & Wolfram, 1998; Wolfram & Sellers, 1999), and nonstandard white vernaculars (Blanton, 1974; Feagin, 1979; Montgomery, 1989; Wolfram & Christian, 1976). In some cases, two or more ethnic varieties have been compared simultaneously (Hazen, 1998; 2000b; Mallinson & Wolfram, 2002; Montgomery & Fuller, 1996; Sommer, 1986).

In short, there has been an enormous amount of interest in verbal morphology among sociolinguists working on English. Perhaps this is because it is only on the verb that any substantial inflectional morphology persists in this language. More likely is that because variation in subject–verb agreement is attested throughout much of the history of the language, this provides a fruitful area of investigation into how constraints on variation develop over time and/or in specific segments of society (cf. Wolfram et al., 1999:56).
The present study belongs among those that observe a given dialect in multiple locations. This multiple observation is achieved by comparing data on “plural verbal -s” (Montgomery, 1997) in the dialect spoken in Harrison County, Indiana—which I will call Kentuckiana (KyIn) English—with existing accounts of the same phenomenon in varieties that are related, but that are not geographically contiguous, to it. Specifically, the question that I seek to answer is approximately that which Christian et al. (1988) asked of Ozark English almost 20 years ago (also cf. Harris, 1946 for southern Illinois, and Larmouth & Remsing, 1993 for northern Wisconsin): Can the dialect spoken in this area outside of Appalachia reasonably be considered Appalachian?

Although the evidence examined here in response to this question consists of just this one variable, it is perhaps the single best variable to consider for this purpose. Montgomery observed that “a number of . . . studies . . . have shown verbal -s to be a characteristic feature of AppE” (1989:255, emphasis added), and Mallinson and Wolfram (2002:750) summarized that it “is widely documented as a feature of American English varieties that were influenced by the Scotch Irish, such as Appalachian English’ (also cf. Childs & Mallinson, 2004:33). The assumption underlying this analysis, then, is that the relevant patterns of subject–verb agreement in KyIn are a retention (although not necessarily a completely unchanged retention) of the Appalachian English(es) spoken by large proportions of the early European settlers in the area (more about this later). As such, this study is an investigation into the founder principle, which states that “structural features of creoles have been predetermined to a large extent . . . by characteristics of the vernaculars spoken by the populations that founded the colonies in which they developed” (Mufwene, 1996:84). Although Mufwene limited his application of the principle to creole genesis, Wolfram speculated that it can “be applied to the study of dialects in general” (2000:53).

In spite of the plausibility of this guiding assumption (cf. Montgomery on “the remarkable retention of linguistic patterns and constraints across more than four centuries and two continents in the evolution of Scottish English into Scotch-Irish English into Appalachian English” (1997:137)), it must be acknowledged that other explanations could be posited for the parallel systems of subject–verb concord in Kentuckiana and Appalachia. One possibility is that plural verbal -s was previously and/or is currently widely distributed (i.e., is a so-called “universal” of English vernaculars). Certainly, this is a valid hypothesis with respect to plural verbal -s in the past be paradigm (i.e., with respect to was leveling (cf. Chambers, 2003)), but Montgomery seemed to argue against such a hypothesis for the system as a whole: “there appears to be no other plausible source of plural verbal -s in Britain and Ireland than Scottish and Northumbrian English” (1997:126). The evidence against a “universalist” account to be presented (much later) in this article consists of preliminary data from a dialect spoken in a distant corner of Indiana without the same Appalachian roots as in Kentuckiana and where the observed patterns of plural verbal -s appear to be
markedly different. A second possibility is that plural verbal -s could be an independent and coincidental development in Kentuckiana and Appalachia. This hypothesis seems unlikely when the cumulative effect of additional evidence, discussed only superficially in this article, is considered. That is, that the similarities between Kentuckiana English and Appalachian English are not limited to plural verbal -s. Some additional morphosyntactic features that occur in the Kentuckiana data and that are also reported to be common in Appalachian English are listed and exemplified in (1)–(4); and this list only continues to grow as I learn more about not only the morphosyntactic, but also the lexical and phonological features that define Appalachian English. Confronted with such mounting evidence, Occam’s Razor forces us to prefer one hypothesis (i.e., that the co-occurrence of features X, Y, and Z in the two dialects is a result of their shared history) over the other (i.e., that features X, Y, and Z each developed spontaneously and independently in the two locations), especially when incontrovertible evidence of the relevant historical connection exists (cf. the following section).

(1) A-prefixing (cf. Christian et al., 1988:51–84; Montgomery, 1989:242–243; Wolfram, 1980; 1988; Wolfram & Christian, 1976:69–76; etc.):

They was just roof tops a-stickin’ out [of the water], I’m tellin’ ya! (Spkr 103)
I pay all my bills just like I did, I said, when they was a-livin’. (Spkr 105)
I was cuttin’ tobacco, a-workin’ in a lumber company, [etc.] (Spkr 207)

(2) They (and, much less frequently, it1) as an alternate form of the existential pronoun there (cf. Blanton, 1974:44; Christian et al., 1988:120, 133–134; Feagin, 1979:205, 207, 238; Montgomery, 2004:278; 2006; Tortora, 2006; Wolfram & Christian, 1976:124–126; Wolfram et al., 1999:63):

They wasn’t but maybe 3 or 4 kids in one grade. (Spkr 103)
They’s days that I can’t do it and there’s other days that I can. (Spkr 201)
It finally went out of business, and so it’s just not much to do. (Spkr 401)

(3) Null relative subject pronouns (cf. Montgomery, 1989:243–244; Montgomery, 2004:265–266; Montgomery & Hall, 2004:xli; Wolfram & Christian, 1976:120–121, but cf. Henry, 1995:$6 for a different analysis):

There’s some people __ does [i.e., hunt turkeys from a tree stand]. (Spkr 205)
I got a good many people __ have my interest at heart. (Spkr 501)

(4) Causative have...to (cf. Butters & Stettler, 1986; Montgomery, 2004:258), as illustrated in the following example containing multiple instances of the construction:

But I had the priest to come in and talk to the students, I had the Church of Christ to come in and talk to them, and I had some of the protestant...uh...preachers to come in and talk to them. (Spkr 301)

So, while, yes, there are other possible explanations for similarities that may exist between Kentuckiana English and Appalachian English, a “family resemblance” account is proposed in this article. The argumentation will follow the three criteria, or standards, proposed by Montgomery (1989:240; 1997:125–126) for plausibly establishing a linguistic heritage between two languages or dialects. First, a historical connection must exist between them.
Second, a “full, explicit description of the grammatical feature [or features] within each variety [must be] made, on a quantitative basis if possible” (1989:240). Finally, the feature(s) being compared in the two varieties should, as much as possible, be common to those varieties and those varieties alone, thereby minimizing the possibility of coincidental similarities. Montgomery (1989:240) warned that “this standard is the most difficult to meet” and it will not be possible to meet it fully here. This is because there really are no features that are unique to Appalachian English; it is, instead, a unique pattern of a bundle of features (Wolfram & Christian, 1976:29–30, 162; also cf. Flanigan, 2000:345, and references there). Nonetheless, although it will not be possible to fully meet this requirement here, it will be possible to reasonably meet it by uncovering numerous similarities in subject–verb agreement between Appalachian English and Kentuckiana English. Also, because these two varieties are separated today by no more than a couple hundred years, a relatively short amount of time in the grand scheme of language change, the impossibility of fully satisfying this requirement is tolerable. Montgomery (1989:240) also granted that “the more immediate the contact between varieties being compared, the less relevant this requirement is.”

THE RESEARCH SITE AND ITS APPALACHIAN/SCOTCH-IRISH HERITAGE

The data for this study was collected in Harrison County, Indiana between March and November of 2002. Harrison County is a largely rural community located on the Ohio River in extreme south-central Indiana, only about 25 miles, on average, from Louisville, Kentucky. According to census figures, its population in 2000 was 34,325 with a density of just 70 people per square mile. See Figure 1.2. The residents of Harrison County are almost all European Americans and many
of them have lived in the community for a number of generations. According to the same census figures, 98.4% of the county’s population in 2000 was white.

The early European settlers in Harrison County relocated here from Georgia, Kentucky, Maryland, New York, North Carolina, Pennsylvania, South Carolina, Tennessee, Vermont, and Virginia, among other eastern, southern, and New England states (Ferree & Hardin, 1961; Griffin, 1984; 1991; 1993). It will be noted that (many of) these locations fall within the Appalachian region (cf. Appalachian Regional Commission; Christian et al., 1988:16, 30; Wolfram & Christian, 1976:5, 12), an area that was heavily settled by the Scotch-Irish after they arrived in Delaware and southeastern Pennsylvania during the 18th century (Crozier, 1984; Montgomery, 1989; 1997). It is no surprise, then, that the Scotch-Irish were one of Harrison County’s first major (European) ethnic groups: “A great percentage of the first pioneers of the county were the Scotch-Irish, German, French, and English . . .” (Griffin, 1984:12).

It is also possible to get a sense of how Appalachian the early settlers in Harrison County were by tallying the number of them that came from each state. Table 1 shows that the majority of 60 individuals who I was able to gather unambiguous information about (Griffin, 1991; 1993; Roose, 1911) did, in fact, come from states that fall more or less uncontroversially within Appalachia and where the people would have been predominantly Scotch-Irish. The regional classifications are those of Montgomery et al. (1993; cf. their Table 1, p. 345). Assuming that the 60 individuals represented in Table 1 are indeed representative of Harrison County’s early settlers, much of its early population does seem to have had strong Appalachian (i.e., Scotch-Irish) origins. Furthermore, since Harrison County once spanned a much larger geographical area than it does today (Griffin, 1984:12, 13), the same may be true of the early population of south-central Indiana more generally, which, incidentally, could help to account for the existence of the so-called Hoosier Apex (Carver, 1987) and the common perception of Indiana as “a peculiarly northern outpost of southern speech” (Preston, 1993:32; 1996:313).

### Table 1. Regional origins of 60 of Harrison County’s earliest and early settlers

| Region                        | Percentage (Persons) | Appalachian Status |
|-------------------------------|----------------------|--------------------|
| South Atlantic (NC, SC, VA)   | 31.7% (19/60)        | ✓                  |
| Border states (KY, TN)        | 25.0% (15/60)        | ✓                  |
| Northeast (NY, PA)            | 20.0% (12/60)        | ✓                  |
| Mississippi River Basin (TX)  | 1.7% (1/60)          | X                  |
| Midwest (OH)                  | 1.7% (1/60)          | ?                  |
| Others                        |                      |                    |
| Alabama                       | 1.7% (1/60)          | ?                  |
| Europe                        | 18.3% (11/60)        | X                  |

A ✓ indicates that at least part of the state(s) in question are included in even the most conservative definitions of Appalachia; a ? indicates that at least part of the state(s) in question are included in only more liberal definitions of Appalachia; and an X indicates that the settlers from these places cannot be considered to have come from Appalachia under any definition of it.
METHODS

Speakers

The social profile of the 18 speakers in this study is summarized in Table 2. All of the 9 men and 9 women are European Americans who grew up in the area. I recorded them during individual- and dual-participant interviews and group sessions that usually took place in their homes or, alternatively, in local gathering places or their places of business/employment (general stores in both of these latter two cases). At the time (in 2002), they ranged in age from 25 to 87, with a mean age of 59 years. They are divided into two generations, each spanning a range of 29 years (25–53 inclusive and 59–87 inclusive). Their levels of formal education range from about an 8th grade education to a master’s degree. They are classified into one of two educational groups: those with less than or equal to a high school diploma (or its equivalent) and those with at least some college and/or graduate school. Overall, these speakers constitute a well-educated group, the younger generation even more so than the older generation. Fifteen of these 18 speakers completed high school (or the equivalent)—all 7 of the younger-generation speakers and 8 of the 11 older-generation speakers—and over half of those went on to college (at least for a while).

Data

The literature on verbal -s has identified two main loci of variation: the absence of 3rd person singular -s and the presence of (especially, 3rd person) plural -s. The former, 3sg -s absence, occurs only sporadically in the KyIn data and, consequently, is not considered here. Therefore, tokens of finite present-tense indicative verbs with a third-person plural (3pl) subject and tokens of past be with any plural subject (including 2nd singular ‘you’), as illustrated in the examples in (5)–(9), were extracted from the interviews with the following exceptions.
But at the same time th- th- there has to be some, uh, horrible consequences. (Spkr 402)

And two of ’em lives right up here . . . in them trailers across the road up there. (Spkr 202)

I think they know_ it come [i.e., came] from Sears & Roebuck catalogue. (Spkr 102)

I don’t even remember what we was doin’ now. (Spkr 301)

And the kids that I was in class with . . . their parents were like parents to me. (Spkr 401)

Exclusions

All tokens were discarded in which the segment following the verb was an [s]. With such tokens, it was (often) not possible to determine whether the verb was inflected with -s or uninflected.

All tokens of don’t were excluded. In many dialects of English, there is a very strong tendency to use don’t even in the 3sg, where doesn’t is prescribed (e.g., He don’t X, She don’t Y; cf. Blanton, 1974:48; Cheshire, 1982:36; Feagin, 1979:198; Wolfram & Christian, 1976:79; Wolfram et al., 1999:63). Consequently, it would be very unlikely to find singular doesn’t in plural don’t contexts (e.g., *They doesn’t Z). Although plural don’t was excluded for this reason, tokens of affirmative 3pl does(s) and tokens with an unaffixed negative particle were retained. In this latter case, no distinction is made between whether the negative particle could have been cliticized to the verb but simply wasn’t (e.g., do/does not) or could not possibly have been (e.g., do/does never, do/does hardly).

Verbs that cannot be inflected with verbal -s had to be excluded. Of course, only finite present-tense indicative verbs can be inflected. So, if it was unclear whether or not a verb was finite, that token was excluded, as shown in example (10), which could mean either (a) they try to help ’em and [to] give ’em personal backing or (b) they try to help ’em and [they] give ’em personal backing. Similarly, if there was any doubt as to whether a token was present tense, it, too, was excluded. The tense of a verb might be ambiguous because the following context triggers a phonological neutralization—in the same way that a following [s] is problematic—as in (11), or because an irregular past-tense form is homophonous with an uninflected present-tense form, as in (12), also cf. (7). In either of these cases, if the presence of temporal adverbs or the like made it possible to determine that a verb was present-tense, then that token was retained.

Even some finite present-tense verbs cannot be inflected. These include invariant modal verbs (13) and deleted auxiliaries (14); another finite verb that I consider “uninflectable” is contracted want to (i.e., wanna), as in (15). However, in the same way that tokens of affirmative and unaffixed negative plural do/does not were retained in spite of the exclusion of plural don’t, tokens of uncontracted want(s) to and tokens of want(s) that were not followed by an infinitive were retained in spite of the exclusion of contracted wanna.

And they try to help ’em and . . . give ’em . . . personal backing. (Spkr 204)

’Cause they ??[ live_ / lived ]?? down, you know, in [place name] (Spkr 103)
They give [i.e., gave] us a choice to be shipped out or ... (Spkr 205)

. . . to keep the telephone exchange goin’, for they can make calls. (Spkr 101)

They ___ got so damn many games. (Spkr 205)

People just don’t– They just . . . wanna be left alone. (Spkr 201)

Finally, because this study focuses on 3pl (and, in the case of past be, 1pl and 2sg/2pl) verb forms, number-ambiguous tokens had to be excluded unless some cue could serve to establish them as plural. An example is provided in (16), in which the antecedent of the relative pronoun subject could conceivably be either the plural four columns or the singular front of the building.

It’s got three column– uh, got four columns up the front of it that faces the river (Spkr 501)

Factor groups

The data remaining after these various exclusions had to be coded for a variety of factors, which, as much as possible, were inspired by previous research on variable subject–verb agreement. These include the type of subject, the proximity of the subject to the verb, the person/number of the subject, the “type” of verb, the polarity of the verb, the type of clause, the preceding and following phonological contexts, and the social characteristics of the speaker.

Subject type. Researcher after researcher who has looked at plural verbal -s, including was leveling, has noted an influence according to the type of subject. Very often, noun phrase (NP) subjects favor inflected (-s) forms and pronominal subjects favor uninflected (-ø) forms. In a more specific version of the NP/Pro constraint, known as the Northern Subject Rule (NSR), which Montgomery (1989:250) traced back to Old Scotch-Irish English, the constraint opposes personal pronoun subjects that immediately precede the verb, on the one hand, and any other type of pronominal or NP subject, on the other hand. In this study, subjects are coded as one of the five types listed in (17); their proximity to the verb is coded independently (discussed later).

The last two subject types listed in (17), relative pronouns and null relatives, have not received nearly as much attention in the literature as the distinction between NPs and personal pronouns. Overt relatives have been taken into account in the occasional analysis (e.g., Cheshire, 1982; McCafferty, 2003; 2004; Montgomery, 1994; 1997; Montgomery et al., 1993) and at other times they have been the topic of impressionistic observation. For example, Feagin observed that “the relative pronoun that referring to a plural seems to be most likely to trigger -s agreement . . .” (1979:193); likewise, without analyzing them, per se, Hazen “hypothesize[d] that the word that significantly contributed to nonstandard concord” (1996:51, endnote 6). Conversely, the potential influence of null relatives on verbal -s does not seem to have been considered; instead, the focus has been on the mere fact that subordinate clauses with null subject-relatives are a possible nonstandard syntactic structure of, particularly,
Scotch-Irish and Appalachian English (cf. the references at (3)). Null relatives are coded here to determine, first, the extent to which they also occur in KyIn and, second, whether they favor plural verbal -s, as might reasonably be expected based on the differences between them and the types of subjects that other researchers have found to disfavor plural verbal -s.

(17) Subject types
NPs
   Personal and other pronouns
   Existential pronouns
   (Overt) Relative pronouns
   Null relative pronouns

Proximity of subject to verb. The proximity of the subject and the verb has also been noted to influence verbal -s. If the subject and the verb are adjacent to each other, the verb is less likely to be inflected with plural -s; if they are separated from each other by some intervening material, the verb is more likely to be inflected with plural -s. In this study, the subject’s proximity to the verb is coded as an independent factor to test for main effects without having to associate the subject’s status as an NP or a pronoun with its proximity to the verb, as in the NSR [Northern Subject Rule], but while still being able to test for the NSR through recoding (more on this, later).

Person/number of subject. Another subject-oriented constraint is its person (1st, 2nd, 3rd) and number (sg, pl). In the present study, however, this factor group has very limited relevance. Here, data was collected for 1pl, 2sg/2pl, and 3pl verbs only in the past be paradigm; elsewhere, only 3pl data was collected. A GOLDFARB analysis was performed on the past be data alone, allowing for an investigation into the person/number of the subject where relevant, but space limitations prevent reporting those results here. Suffice it to say that the highest rate of was leveling was found in the 2nd person (54.3% (19/35)), followed by the 3pl (37.0% (108/292)), and, finally, by the 1pl (32.9% (28/85)). These differences, however, did not reach the level of significance, possibly due, in part, to the sparse data in the 2nd person and 1pl contexts.

The “type” of verb. There are reasons to believe that particular verbs might favor or disfavor verbal -s differently. For instance, one verb may prescribe an uninflected form (a -ø form) where another prescribes an -s form (e.g., I go__ vs. I was). More to the point, in a number of (Appalachian, and possibly other?) communities, be is more susceptible than other verbs to plural verbal -s. Perhaps the one trait that distinguishes be from all other verbs the most, though, is that it has -s forms in both the present and past tenses. Verbs are coded into three categories here: (1) past be, (2) present be + present have, (3) all other verbs. Clearly, past be belongs in a group by itself, whereas present-tense be and have are grouped into a single category because they are similar to each other in a
number of ways. For example, unlike regular verbs, they function as both main verbs and auxiliaries; they can occur in existential clauses; and they show the same propensity for plural verbal -s in this community (excluding existentials: 14% plural is, 12% plural has).

Polarity. Previous research, especially on past be, has found that negative polarity triggers more plural (i.e., -ø) than singular (i.e., -s) verb forms. But as there has been no discussion, to my knowledge, of this effect outside of past be, the factor group was included here to investigate its potential influence.

Clause type. There has been very little investigation of whether finite verbs in subordinate clauses are inflected more than, less than, or the same as in main clauses. For example, Clarke found that “embedded clauses [favor] -s marking [including in the 3sg?] significantly more ... than matrix clauses” in Newfoundland (1997:245), whereas Eisikovits offered only “anecdotal evidence ... that subordinate structures are less likely to favour the use of non-standard forms” (1987:18). Clearly, “further investigation in a wider range of dialects is in order” (Clarke, 1997:245), and I code the KyIn data accordingly.

Phonology. Given the influence of the preceding phonological context on -s allomorphy even in standard English, where verbal -s has three allomorphs—voiced [-z], voiceless [-s], and epenthesized [tz]—it seemed prudent to take the neighboring contexts into account where the variable realization of verbal -s is concerned. In each position, only two values are distinguished. In the preceding context, those values are (a) a vowel and (b) a consonant (either singleton or cluster). It should be noted, though, that the preceding context varies in only one of the three categories of verbs (the regular present-tense verbs); in the other two, (i) past be and (ii) present be + have, there are suppletive forms—was/were; is/are, has/have—so that only the following phonological context is potentially meaningful. In that following position, the two values distinguished are (a) a following segment (either a vowel or a consonant/cluster), and (b) a syntactic/prosodic pause or a nonsyntactic/prosodic hesitation. The data was (re)coded in this way because following vowels and consonants pattern similarly (they manifest 18.1% and 18.5% plural verbal -s, respectively; 18.4%, combined), and following pauses and hesitations also pattern similarly (they manifest 8.5% and 10.4% plural verbal -s, respectively; 9.3%, combined).

Social factors. The external factors taken into account are those represented in Table 2: the speaker’s sex, level of formal education, and age group/generation.

RESULTS

Distributional analysis

Table 3 shows the distribution of the 1757 coded tokens of plural verbal -s from the KyIn corpus according to verb “type” and subject type. With respect to the type of verb, the overall frequency of plural -s decreases as we move along the table from
| Type of subject            | Past be (1pl, 2nd, 3pl) | Present be (3pl) | Present have (3pl) | Other verbs (3pl) | Totals          |
|---------------------------|-------------------------|------------------|--------------------|-------------------|----------------|
| Existential pronoun       | 90.1% (64/71)           | 92.9% (117/126)  | 80.0% (4/5)        |                   | 91.6% (185/202) |
| Null relative pronoun     | 100% (1/1)              | 66.7% (2/3)      | 69.2% (9/13)       |                   | 70.6% (12/17)  |
| Overt relative pronoun    | 38.9% (7/18)            | 58.8% (10/17)    | 41.2% (7/17)       | 29.3% (17/58)     | 37.3% (41/110) |
| Noun phrase               | 29.9% (26/87)           | 31.0% (35/113)   | 58.6% (17/29)      | 22.5% (23/102)    | 30.5% (101/331) |
| Personal/Other pronoun    | 39.7% (122/307)         | 1.4% (3/217)     | 0% (0/162)         | 0.5% (2/411)      | 11.6% (127/1097)|
| Totals                    | 45.5% (220/484)         | 34.9% (165/473)  | 13.9% (30/216)     | 8.7% (51/584)     | 26.5% (466/1757)|

28.3% (195/689)
left to right, from past be to present be + have (with be > have) to the other present-tense verbs. (Note that this is true even if existential constructions are excluded; cf. Factor Group #1 in Table 4.) As mentioned earlier, this is consistent with the findings in some other Appalachian communities, where be has also been found to be more susceptible to -s than other verbs are, a point that will be taken up further in the Discussion section. Moving down the table, with respect to the type of subject, the highest rate of plural verbal -s is found with existential pronoun subjects (as is the case in virtually every other study that has looked at these), followed by null relative pronouns, overt relative pronouns, NP subjects, and, finally, pronominal subjects. For the data as a whole, a weak version of the NP/Pro constraint appears to be active: 31% verbal -s with plural NP subjects vs. 12% with plural pronoun subjects. However, closer examination reveals that this constraint is active only for present-tense verbs (be, have, others) and not for past be. Thirty-one percent (75/244) of the present-tense verbs with a plural NP subject are inflected with -s, whereas less than 1% (5/790) of the present-tense verbs with a plural pronoun subject are inflected with -s! With past be, on the other hand, there is more was leveling when the subject is a pronoun (40%) than when it is an NP (30%), showing that the effect of the NP/Pro constraint is actually reversed there. Importantly, KyIn English is not the only dialect in which this is the case. The NP/Pro constraint has also been found to hold except for past be in a number of

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**TABLE 4. Multivariate analysis of plural verbal -s in KyIn English (application value = -s)**

| Factor group | Factor values                | Probability | -s/total | %  |
|--------------|------------------------------|-------------|----------|----|
| 1. Verb ‘type’ | Past tense be                | 0.93        | 155/412  | 37.6% |
|              | Present be + present have    | 0.38        | 72/555   | 13.0% |
|              | Other present tense verbs    | 0.20        | 42/571   | 7.4%  |
|              | Total                        |             | 269/1538 | 17.5% |
| 2. Speaker’s education | High school or less          | 0.83        | 224/776  | 28.9% |
|              | At least some college +      | 0.16        | 45/762   | 5.9%  |
|              | Total                        |             | 269/1538 | 17.5% |
| 3. Type of subject | (Overt) Relative pronoun    | 0.89        | 41/110   | 37.3% |
|              | Noun phrase                  | 0.82        | 101/331  | 30.5% |
|              | Personal/Other pronoun       | 0.34        | 127/1097 | 11.6% |
|              | Total                        |             | 269/1538 | 17.5% |
| 4. Speaker’s age group | Older generation (> 55 yrs)  | 0.56        | 240/1080 | 22.2% |
|              | Younger generation (< 55 yrs)| 0.37        | 29/458   | 6.3%  |
|              | Total                        |             | 269/1538 | 17.5% |
| 5. Following phonology | Consonant or vowel          | 0.52        | 253/1376 | 18.4% |
|              | Pause or hesitation          | 0.32        | 15/161   | 9.3%  |
|              | Total                        |             | 268/1537 | 17.4% |

*Note.* input = 0.05; log likelihood = −418.93; convergence at iteration 13; p = .01.<sup>c</sup>

<sup>a</sup>Excluding existentials (n = 202) and null relative pronoun subjects (n = 17) [1538 + 202 + 17 = 1757 (cf. Table 3)].

<sup>b</sup>The missing token in this group occurred at the end of the tape, preventing recovery of the following context.

<sup>c</sup>One-level analysis: total $\chi^2 = 440.68; \chi^2/cell = 1.56$; convergence at iteration 13.
other Appalachian communities, another point that will be taken up in the Discussion section.

**Multivariate analysis**

Table 4 shows the results of a multivariate analysis, implemented using *GOLDVARB* 2001 (Robinson, Lawrence, & Tagliamonte, 2001), of the data summarized in the distributional analysis in Table 3. Tokens with null relative pronoun subjects were excluded from the *GOLDVARB* analysis because of their infrequent occurrence in the corpus ($n = 17$) and tokens with existential pronoun subjects ($n = 202$) were excluded because they show near-categorical behavior. *GOLDVARB* found two external and three internal factor groups to contribute significantly to plural verbal -s in KyIn English: the external factors are (1) the speaker’s level of formal education and (2) the speaker’s age group; the internal factors are (1) the verb “type,” (2) the type of subject, and (3) the following phonological context.

**Verb “type”**. The factor group that exerts the strongest influence on plural verbal -s in KyIn English is the type of verb. The three different “classes” of verbs considered here pattern very differently with respect to plural -s. For past *be*, *was* leveling with plural subjects is very strongly favored. Both of the other verb classes disfavor verbal -s with plural subjects, the regular verbs even more so than present-tense *be* and *have*. In KyIn English, then, there is a hierarchy of plural verbal -s: plural *was* > plural *is/has* > plural -s.

**Level of education**. The factor group that exerts the second strongest influence on plural verbal -s in KyIn English is the speaker’s level of formal education. This plays a very predictable role in that less education means that nonstandard agreement is favored and is used more; more education means nonstandard agreement is disfavored and is used less.

**Type of subject**. The factor group that exerts the third strongest influence on plural verbal -s in KyIn English is the type of subject. Relative pronoun and NP subjects favor plural verbal -s (confirming Feagin’s, 1979, and Hazen’s, 1996, impressions about the contribution of relative pronouns), whereas personal (and “other”) pronouns disfavor it. If the overall rate of 12% plural verbal -s with pronominal subjects seems unusually high compared to what has been observed in other communities, it should be remembered that this figure includes data for past-tense *be* (i.e., *was* leveling); as shown in Table 3, the rate of present-tense plural verbal -s with pronominal subjects is only 0.6% (5/790).

**Speaker’s age group**. The factor group that exerts the fourth strongest influence on plural verbal -s in KyIn English is the speaker’s age group. Here, the older generation (59–87 year-olds) shows an essentially neutral effect, only slightly favoring plural verbal -s; the younger generation (25–53 year-olds) more strongly disfavors plural verbal -s. The most likely explanation for this generational difference is the increasing importance of education in the modern world. As discussed in connection with Table 2, these speakers constitute a very
well-educated group—the younger generation even more so than the older generation—and the effect of education on plural verbal -s in KyIn has already been identified. Therefore, it is completely understandable that the more-educated younger speakers disfavor plural verbal -s.

**Phonological environment.** The final statistically significant factor group for plural verbal -s in KyIn English is the following phonological context. Recall that the preceding phonological context is meaningful for only one-third of the data, the regular present-tense verbs, and here incidentally, its effect is not significant: 7.9% plural verbal -s after a consonant, 6.3% after a vowel. With respect to the following phonological environment in Table 4, the probability of plural verbal -s occurring before either a consonant or a vowel is a neutral 0.52; on the other hand, it is disfavored before a syntactic/prosodic pause or a nonsyntactic/prosodic hesitation. This result is reminiscent of the dispreference for -s before a pause that Godfrey & Tagliamonte (1999:105, 106) found in Devon, England (except that, there, it is significant only in the 3sg). An interpretive caveat applies here, however, in that only 10% of the data occurs before either a pause or a hesitation (161 tokens); the other 90% of it occurs phrase-internally before either a consonant or a vowel (1376 tokens). This could result in the data being (relatively) too sparse before a pause or a hesitation for it to be reliably modeled by goldvarb.

**Four nonsignificant factor groups.** The following factor groups were not selected as significant by the preceding model, but are, nonetheless, deserving of some commentary: (1) the subject’s proximity to the verb, (2) the type of clause in which the verb occurs, (3) the polarity of the verb, and (4) the speaker’s sex.

The subject’s proximity to the verb was not selected as an independently significant factor group. This is a potential weakness of the current story. If KyIn has Scotch-Irish origins, as is argued here, then it should show evidence of the proximity constraint so salient in Scotch-Irish varieties. To address this apparent incongruity, another goldvarb analysis was performed in accordance with the Northern Subject Rule: Personal pronoun subjects that immediately precede the verb were opposed to all other types of subjects in all other positions (except that null relative pronoun subjects and existentials continue to be excluded). Given this recoding of the data, the NSR is found to be significant in KyIn: Personal pronoun subjects that immediately precede the verb disfavor plural verbal -s (with a probability of 0.32) and subjects of any other type in any other position favor it (with a probability of 0.80).

The question that arises is why, if the NSR is active, is the subject’s proximity to the verb not a significant factor in and of itself? Two thoughts come to mind. First, the vast majority of personal and “other” pronouns in this dataset are actually personal pronouns that immediately precede the verb. Therefore, recoding the data according to the NSR is effectively equivalent to recoding it into a binary opposition between pronominal subjects, which were already found to disfavor plural verbal -s, and nonpronominal subjects, which were already found to favor plural verbal -s. Second, perhaps the effect of distance between the subject and
the verb has been somewhat overstated in the literature, stemming from some types of subjects being coded as distant from the verb when they would more appropriately be coded as adjacent to it. For instance, some researchers analyze the subject as separated from the verb in sentences like those in (18)–(20). Thus, in (18), the subject *people* is separated from the verb *is* by the relative pronoun *that*; in (19), the subject *the dogs* is separated from the verb *barks* by the prepositional phrase *in the trucks*; and in (20), the subject *the nations* is separated from the verb *needs* by the relative clause *that are around us*.

(18) I feel sorry for *people* that’s just bringing children up now (Christian et al., 1988:112)
(19) *The dogs* in the trucks *barks* (Mallinson & Wolfram, 2002:751)
(20) *The nations* that are around us *needs* help (Van Herk & Walker, 2005:119)

An alternate possibility, however, is that the subject is adjacent to the verb in all of these examples. In (18), the subject could be analyzed not as *people*, but as the relative pronoun *that*, which is adjacent to the verb. In fact, it seems that this would have to be the analysis of this sentence once relative pronouns are admitted as a possible type of subject (perhaps they shouldn’t be). In (19), the subject could be analyzed not simply as *the dogs*, but as the complex NP [NP *the dogs* [PP *in the trucks*]], which is adjacent to the verb. In (20), the subject could be analyzed not as *the nations*, but as the complex NP [NP *the nations* [CP *that are around us*]]. Examples of structures that I would argue would be more appropriately coded as nonadjacent subjects are provided in (21)–(24). In (21), the speaker corrects himself, resulting in the subject being separated (if only a little bit, perhaps negligibly) from the verb; in (22), a parenthetical interjection separates the subject from the verb, and in (23)–(24), these are separated by an adverb. (I suspect, though, that Wolfram et al.’s reasoning for why the subject is separated from the verb in (24) would probably differ from mine.) Thus, my coding of subjects that are separated from the verb seems to be much more stringent than some other researchers’, which could have contributed to the subject’s distance from the verb not being selected as significant in the GOLDVARB model in Table 4. The appropriate analysis of structures like those in, especially, (18)–(20) is an issue that future research should seek to resolve.

(21) No, but *people* g– buys it. (Spkr 104)
(22) We didn’t have heat. *We . . . ’course . . . were* there in the summer time. (Spkr 501)
(23) We knew *we* probably weren’t gonna be very successful with that. (Spkr 215)
(24) *A lot of people [who] comes here from off island now is* getting married on the beach (Wolfram et al., 1999:62, note: ‘[ ]’ in original)

The type of clause in which the verb occurs—main versus subordinate—was also not selected as a significant factor group, at least not in the GOLDVARB analysis summarized in Table 4. Conversely, when the data was recoded according to the NSR, as just discussed, the type of clause was selected as
significant (after the speaker’s age group and before the following phonological context). In that model, where the type of subject and its proximity to the verb were recoded according to the NSR, plural verbal -s was found to be slightly favored on verbs in subordinate clauses (0.58) and slightly disfavored on matrix verbs (0.46). The slight preference for plural verbal -s in subordinate clauses is somewhat unexpected, given, for example, Eisikovits’ “anecdotal evidence ... that subordinate structures are less likely to favour the use of non-standard forms’ (1987:18, emphasis added). One cannot help but wonder if this result is a consequence of the strong preference for plural verbal -s with relative pronoun subjects (so, where the verb would necessarily be in a subordinate clause); but that question is quickly put to rest with the realization that relative pronoun subjects account for only about one-fifth of the tokens in subordinate clauses. Clearly, the weak favoring effect of subordinate clauses on plural verbal -s must be more generally motivated, and Clarke’s call for “further investigation in a wider range of dialects” (1997:245) remains in force.

Another nonsignificant factor group is the polarity of the verb. Contra previous findings, in which negative polarity triggers more plural (e.g., they weren’t) than singular (e.g., they wasn’t) verb forms (e.g., Britain, 2002; Britain & Sudbury, 2002; Cheshire, 1982; Schilling-Estes & Wolfram, 1994), plural verbal -s was found to occur nearly twice as often in negative clauses (32.9% (27/82)) than in affirmative clauses (16.6% (242/1456)) in KyIn English. Perhaps one reason that this difference does not reach the level of significance is the extremely sparse data in the negative context: only 82 of the 1538 tokens, or just 5% of the data.

The final nonsignificant factor group is the sex of the speaker. Here, the data is sufficiently robust in both factors; clearly, then, the reason that this factor group was not selected as significant is because men and women exhibit comparable rates of plural verbal -s in KyIn: 18.4% (92/501) and 17.1% (177/1037), respectively.

**DISCUSSION**

The first two of Montgomery’s (1989; 1997) three requirements for establishing a close genetic relationship between Kentuckiana English and Appalachian English have now been met. The historical connection between the people has been established, and we now have an explicit quantitative description of plural verbal -s in Kentuckiana English to add to existing accounts of the same in Appalachian English. All that remains is to perform the explicit comparison of these varieties, which will uncover similarities between them that, I argue, cannot be due to chance, thereby satisfying Montgomery’s final requirement: that coincidental similarities between the two varieties be ruled out. A final piece of evidence in support of the argument will come in the form of a small, preliminary study of plural verbal -s in a distant corner of Indiana, some 275 miles to the north of Harrison County and without the same Appalachian heritage.
The first similarity between Kentuckiana English and Appalachian (also, Ozark) English is where nonstandard agreement occurs in them. Table 5, following Christian et al. (1988:133), shows the different types of nonstandard agreement that are found in a number of American dialects. A ‘✓’ in a cell indicates (variable) nonstandard agreement for that structure in that dialect; an ‘✗’ indicates that this nonstandard feature is reportedly not found in that dialect. For example, the first column shows that all of the dialects represented in Table 5—with the possible, but unlikely, exception of Puerto Rican English—variably use singular is/was in plural existentials. Similarly, the fourth column shows that variable 3sg -s absence is found in Puerto Rican English, AAVE, and Pueblo English, but not in Appalachian English, Ozark English, Kentuckiana English, or northern white nonstandard vernaculars.9

Given that there are no differences (as far as we know) among these seven dialects with respect to plural existentials (column 1), was leveling (column 2), and 3sg don’t (column 5), the relevant and diagnostic variables, among those included in Table 5, are plural verbal -s and 3sg -s absence (columns 3 and 4). The system in which verbal -s is variably present with plural subjects and not regularly absent with 3sg subjects is shared by Appalachian English, Ozark English, and Kentuckiana English, but not by any of the other dialects in the table. This, then, constitutes a first piece of evidence that Kentuckiana English and Appalachian/Ozark English are similar to each other while being distinct from some other varieties of American English.

Another general similarity common to numerous varieties of Appalachian English is the NP/Pro constraint. Comparing three varieties of Appalachian English—two spoken in West Virginia and one spoken in Tennessee’s Smoky Mountain region—Montgomery (1989:259) found that plural verbs in all three are inflected with -s most frequently in existential sentences, less frequently when the subject is a 3pl NP subject, and least of all when the subject is the 3pl personal pronoun subject they. To that list can be added Alabama English.

| Dialect                  | Plural there -s | Plural was | (3rd person?) plural -s | 3sg Ø | 3sg don’t |
|-------------------------|-----------------|------------|-------------------------|-------|----------|
| Appalachian English     | ✓               | ✓          | ✓                       | ✗     | ✗        |
| Ozark English           | ✓               | ✓          | ✓                       | ✗     | ?        |
| Kentuckiana English     | ✓               | ✓          | ✓                       | ✗     | ?        |
| Northern white nonstandard | ✓              | ✓          | ✗                       | ✗     | ?        |
| Puerto Rican            | ?               | ?          | ?                       | ✓     | ?        |
| AAVE                    | ✓               | ✓          | ✗                       | ✓     | ✓        |
| AmerIndian (Pueblo)     | ✓               | ✓          | ✗                       | ✓     | ✓        |

Note. Based on Christian et al., 1988:133. A ‘✓’ indicates that the structure in question occurs, if only variably; an ‘✗’ indicates that the structure in question reportedly does not occur; and a ‘?’ indicates a lack of relevant data.
(Feagin, 1979), Ozark English (Christian et al., 1988), Smoky Mountain English, as spoken not only in Tennessee but also in North Carolina (Montgomery, 1997, citing, especially, Hall, 1942), and Kentuckiana English. This yields the list in (25).

It must be stated, though, that the \([there > \text{NP} > \text{Pro}]\) hierarchy may very well not be unique to Appalachian English. Perhaps a more convincing consideration, then, is that this is only part of the story on the NP/Pro constraint in Appalachia. More specifically, although it is active over the system as a whole, it breaks down in specific areas, particularly in the past be paradigm. A number of varieties of Appalachian English that observe the NP/Pro constraint except with respect to was leveling are listed in (26). Note that “Appalachian English II” and “Smoky Mountain English I & II” are absent from (26) because there is no was leveling data from them (cf. Table 7) and not (necessarily) because they follow a different pattern; among the several varieties considered here, only Ocracoke English was explicitly found not to reject the NP/Pro constraint in the past tense be paradigm (Hazen, 1996:33–34, 36–37; also cf. Wolfram et al., 1999:69–71).

This adherence to the NP/Pro constraint except in the past be paradigm is an uncommon pattern that contrasts with what has been observed in several other varieties of English. For example, Tagliamonte (2002:743–746) summarized that in five other disparate communities—one in northeastern Scotland (Buckie), one in southwestern England (Devon), and three in Nova Scotia, Canada (Guysborough Enclave, Guysborough Village, and North Preston)—the \([\text{NP} > \text{Pro}]\) constraint does apply in the past be paradigm; also see Trüb (2006) for Earlier White Southern American Vernacular English, and Wolfram & Sellers (1999) for Lumbee Vernacular English. The range of these communities that observe \([\text{NP} > \text{Pro}]\) in the past be paradigm suggests that it is probably a sufficiently widespread phenomenon for its absence in the Appalachian dialects in (26) to be a noteworthy gap in need of explanation. The explanation offered here is that the pattern in question is shared by these dialects because it is a family trait. However, rejection of \([\text{NP} > \text{Pro}]\) in the past be paradigm is not strictly restricted to Appalachian English. It also fails to apply, for example, in affirmative contexts in Fenland English (Britain, 2002) and in Samaná English (Tagliamonte & Smith, 1999). Therefore, it cannot be taken as definitive proof that the dialects in (26) share a family bond, but, this is, at the very least, a plausible possibility that is consistent with the information available about the historical connection(s) among them.

\(\text{(25) Appalachian English dialects with the NP/Pro constraint: } [\text{there} > \text{NP} > \text{they}]\)

Alabama English (Feagin, 1979)
Appalachian English I (Wolfram & Christian, 1976; Christian et al., 1988)
Appalachian English II (Hackenberg, 1973, cited in Montgomery, 1989; 1997)
Ozark English (Christian et al., 1988)
Smoky Mountain English I (Montgomery, 1989)
Smoky Mountain English II (Montgomery, 1997, citing, esp., Hall, 1942)
Kentuckiana English
### Table 6. Quantitative comparison of concord marking in four varieties of Appalachian English

|        | there | Pro+was | NP+was | NP+has | NP+is | NP+-s | Pro+is | Pro+-s | Pro+has |
|--------|-------|---------|--------|--------|-------|-------|--------|--------|---------|
| AL     | 91.5% | 70.0%   | [72.0%] | [72.7%] | 60.1% | 38.1% | 3.3%   | 0%     | [1.3%]  |
| AR     | 79.3% | 72.1%   | 60.7%  | 42.6%  | 31.5% | 27.7% | 0.2%   | 0.1%   | 0%      |
| WV I   | 93.5% | 76.6%   | 68.5%  | 45.6%  | 29.9% | 24.1% | 0.5%   | 0.2%   | 0%      |
| KyIn   | 91.6% | 39.7%   | 29.9%  | [58.6%] | 31.0% | 22.5% | 1.4%   | 0.5%   | 0%      |

*Note.* AL = Alabama English (Feagin, 1979; Feagin’s working class speakers only); AR = Ozark English (Christian et al., 1988; Pro = 1st, 2nd, and 3rd plural); WV I = Appalachian English I (Wolfram & Christian, 1976; Pro = 1st, 2nd, and 3rd plural); KyIn = Kentuckiana English (1,630 tokens; overt/null relative pronoun subjects excluded; cf. Table 3). {NP/Pro}+ ... indicates which singular verb form (whether was, is, has, or -s) co-occurs with a plural subject (whether an NP or a pronoun). Percentages in square brackets mark deviations, i.e., values that are greater than the value in the cell immediately to their left.
### TABLE 7. Quantitative comparison of concord marking in four (more) varieties of Appalachian English

|       | there | Pro+was | NP+was | NP+has | NP+is | NP+s | Pro+is | Pro+s | Pro+has |
|-------|-------|---------|--------|--------|-------|------|--------|-------|---------|
| NC    | 92.6% | 8.1%    | [16.4%]| [19.8%]| [33.3%]| 0%   | 0%     | 0%    |         |
| TN    |       | 84.9%   | 58.0%  | 10.8%  | 5.4%  | 0%   | 0%     | 0%    | 2.5%    |
| TNC   | 88.9% | 71.4%   | 57.6%  | 5.4%   | 0.7%  | 0%   | 0%     | 0%    |         |
| WV II | 65.8% | 43.0%   | 27.7%  | 0%     | 0%    | 0%   | 0%     | 0%    |         |

**Note.** NC = Ocracoke English (Hazen, 1996; Wolfram et al., 1999); TN = Smoky Mountain (TN) Appalachian English I (Montgomery, 1989); TNC = Smoky Mountain (TN, NC) Appalachian English II (Montgomery, 1997; citing, esp, Hall, 1942); WV II = Appalachian English II (Hackenberg, 1973; cited in Montgomery, 1989; 1997). `{NP/Pro}`+... indicates which singular verb form (whether *was, is, has, or -s*) co-occurs with a plural subject (whether an NP or a pronoun). Percentages in square brackets mark deviations, i.e., values that are greater than the value in the cell immediately to their left.
Appalachian English dialects with the NP/Pro constraint (cf. (25)) except with past be

Alabama English (Feagin, 1979)
Appalachian English I (Wolfram & Christian, 1976; Christian et al., 1988)
Ozark English (Christian et al., 1988)
Kentuckiana English

Another trait of Appalachian Englishes is that they tend to show a greater propensity for plural -s with past be than with present-tense be compared with other present-tense verbs. The dialects that adhere to this pattern, in very general terms, are listed in (27).11 Those four dialects also conform very closely to more precise quantitative details of the hierarchy, as shown in Table 6.

Another trait of Appalachian Englishes is that they tend to show a greater propensity for plural -s with past be than with present-tense be compared with other present-tense verbs. The dialects that adhere to this pattern, in very general terms, are listed in (27).11 Those four dialects also conform very closely to more precise quantitative details of the hierarchy, as shown in Table 6.

In Table 6 (also Table 7), the rate of plural verbal -s decreases from left to right. Square brackets [ ] mark deviations from this pattern so that a value that is greater than the value in the cell immediately to its left is easily identifiable. There are only four such deviations in the table, most of which are very small increases that are probably of very little concern in the grand scheme of things; the otherwise high adherence to this quantitatively rigorous grammatical pattern seems much more important. In fact, the only point of genuine concern—that is, the only substantial increase when moving along a row from left to right—occurs in the KyIn dialect, where there is a sharp rise between 30% NP + was and 59% NP + has! One possible explanation for this drastic increase is the small number of tokens that it is based on. Of all of the cells in the KyIn row of Table 6, NP + has is the only one that is based on fewer than 50 tokens (cf. Table 3). Presumably, with more data, this exceptional cell would prove to be less of a concern than it initially seems. That said, it would be inappropriate to place all of the “blame” on the shoulders of NP + has; it also matters that there are comparably very low rates of was leveling in this dialect (cf. columns 2 and 3). In KyIn, was leveling occurs at a rate of only about 30 to 40 percent, depending on the type of subject, whereas in Alabama, Arkansas, and West Virginia, there is much more was leveling, anywhere from about 60 to 75 percent. If the rate of was leveling in KyIn were comparable to the rates in Alabama, Arkansas, and/or West Virginia, we might “drop off” to 59% NP + has instead of “climbing up” to it.

The question then becomes why there is so little was leveling in KyIn. This is certainly a result of the KyIn speakers being a highly educated group. Recall that 15 of these 18 speakers completed high school (or the equivalent) and over half of those went on to college (at least for a while). On the other hand, in West Virginia and Arkansas, Wolfram and Christian (1976:29) and Christian et al. 270
targeted the speech of “the working class rural population,” which Christian et al. specified meant “with limited formal education” (1988:4). Similarly, Feagin (1979) collected data from both upper class and working class speakers in Anniston, Alabama, but the figures in Table 6 are based only on the data from her working class speakers. This very likely explains the different rates of *was* leveling in these communities. A *goldvarb* analysis of just the past-tense *be* data in KyIn (omitted here because of space restrictions) reveals that the single most important factor conditioning *was* leveling in this community is the speaker’s level of education. In fact, if an attempt is made, after the fact, to “control” for level of education by excluding those speakers with more than a high school education, the overall rate of *was* leveling in KyIn increases from 38% (148/394) to 80% (118/148), and much more closely approximates the other three dialects in Table 6.

Table 7 repeats the information in Table 6 for four additional communities, but with a number of gaps in the data because of methodological differences, resulting in fewer points of comparison. Therefore, I will not comment extensively on the communities in Table 7. Suffice it to say that the limited data available for the two Smoky Mountain samples and the second West Virginia sample shows them conforming perfectly to the overall pattern. The Ocracoke dialect, on the other hand, is considerably different than the other seven dialects in Tables 6 and 7, as it alone is responsible for the three deviant cells in Table 7.

Given what is known about the historical connections between these communities both within Appalachia and outside of it, the simplest and thus the best, albeit not the *only* possible, explanation for the linguistic similarities among most of them is that they reflect a linguistic system inherited from a common ancestor. Thus, Montgomery (1989:259) argued that these types of “fundamental similarities” in the patterning of plural verbal -s across dialects supports an argument for a “common source” among them; Wolfram et al. contended that “similarities in patterning [i.e., among Outer Banks, Appalachian, and Ozark Englishes] are probably a good indicator of these dialects’ historical connection to the Scots-Irish, Scots, and Northumbrian dialects” (1999:60); and Van Herk & Walker argued that “shared retention of variable conditioning that cannot be attributed to universal considerations constitutes evidence of a shared origin” (2005:127).

Van Herk & Walker’s reference to linguistic universals seems to be a critical point. Thus, one anonymous reviewer questions whether “the similarities... between KyIn and Appalachian dialects [are] unique to themselves,” and another cautions, first, that “3rd pl. -s on main verbs... appears to have been... widely distributed in earlier American English, regardless of its origin” and, second, that “its contemporary distribution seems to be fairly extensively documented in vernacular dialects of American English so that one might question whether it can be assumed that it is restricted to those areas heavily influenced by Scots Irish.” Both of these reviewers, then, echo the spirit of Tagliamonte’s position that “parallel constraints across one set of varieties is not conclusive proof of a common origin unless contrastive corroborating evidence can be found
elsewhere’ (2002:746, emphasis added). In other words, these reviewers take issue with the extent to which Montgomery’s third standard has been adequately met here: “that the existence of the grammatical features in question . . . be as closely limited to the varieties concerned as possible” (1989:240; 1997:126).

Even if it is true that Montgomery’s third standard hasn’t been satisfactorily met, this should not be seen as a critical flaw of the argumentation. Insofar as Montgomery is correct that “the more immediate the contact between varieties being compared, the less relevant this requirement is” (1989:240), then satisfying this particular standard need not be our primary concern: it was, after all, only about 200 years ago that pioneers brought their Appalachian language varieties to Harrison County. Also, since that relocation from Appalachia to Kentuckiana took place as recently as it did, there is ample documentation of it in the historical record. Consequently, the cross-linguistic comparisons performed here do not investigate parallel constraints across just any set of dialects, but across a set of dialects that we already know to be related. In such a case, the default assumption has to be that any similarities observed are very likely genetic. That is, the question isn’t one of using linguistic data to posit a genetic relationship that we are otherwise unsure of, but, given that an undeniable genetic relationship exists (e.g., given a pair of twins separated at birth), have—or how have—the relevant traits and characteristics (in this case, linguistic patterns) persisted through time and space?

Still, additional corroborating evidence of the type called for by Tagliamonte (2002) is available. It is not at all clear that, even within the set of (American) English dialects, the similarities between Appalachia and Kentuckiana uncovered here are, in fact, “universal.” As a point of comparison, take the following “pilot-study” data from just one-half hour of conversation for each of six speakers—three European-American men (aged 41, 51, and 69) and three European-American women (aged 25, 49, and 64)—who I interviewed for an unrelated project in extreme northwestern Indiana in November 2005, and who, in terms of their ages and levels of education, but not in terms of their community’s early-settler origins, are comparable to the KyIn speakers analyzed above. Those three hours of conversation with these six speakers yielded a mini-corpus of 248 relevant tokens, 221 of which are represented in Table 8. This sample is insufficient for any statistical analyses, but the distribution of plural verbal -s in it seems impressionistically very different than in Tables 6 and 7 for Appalachia and Kentuckiana. In the Northwest Indiana sample (Table 8), there is very little plural verbal -s outside of existential constructions, including a very (surprisingly!) modest amount of was leveling. In the present tense (all verbs combined: be, have, and others), only 2 of the 127 tokens (1.6%) of plural verbs are -s forms (vs. 55/521 = 10.6% in KyIn), and both of those are instances of plural is with an NP subject, produced by a single speaker in a single utterance (Yeah, my hobbies is probably dedicated to–is dedicated to shootin’). There are no instances of plural verbal -s, as an inflectional morpheme properly speaking, which stands in sharp contrast to the Kentuckiana and Appalachia data, in which the lowest rate of NP + -s reaches 22% (incidentally, in the KyIn
|        | there | Pro+was | NP+was | NP+has | NP+is | NP+-s | Pro+is | Pro+-s | Pro+has |
|--------|-------|---------|--------|--------|-------|-------|--------|--------|--------|
| Inland | 78.1% | 4.7%    | [5.3%] | 0%     | [10.5%]| 0%    | 0%     | 0%     | 0%     |
|        | 25/32 | 2/43    | 1/19   | 0/8    | 2/19  | 0/20  | 0/34   | 0/36   | 0/10   |

Note. Inland = Northwest Indiana’s stake of the “Inland Northern” dialect of American English. {NP/Pro}+... indicates which singular verb form (whether was, is, has, or -s) co-occurs with a plural subject (whether an NP or a pronoun). Percentages in square brackets mark deviations, i.e., values that are greater than the value in the cell immediately to their left.
community); likewise, the rate of 0% NP + has also contrasts with the rates of at least 40% NP + has in Kentuckiana and Appalachia. However, given the strict limitations of the size of the sample in Table 8, these differences must be taken cautiously. Still, the data from this northwest Indiana community, preliminary as it is, tentatively suggests that the similarities between Kentuckiana English and the other varieties of Appalachian English discussed in this article are likely a result of their common heritage, rather than any “universal” considerations. But this is a question that will have to await future research for further elaboration.

CONCLUSION

The three standards proposed by Montgomery (1989:240; 1997:125–126) for establishing a genetic relationship between two languages have now been satisfied. The historical connection between Kentuckiana and Appalachia has been established, satisfying the first standard. An explicit quantitative description of plural verbal -s in KyIn English has been provided, satisfying the second standard. And this part of the subject–verb concord system of Kentuckiana English has been explicitly compared to the same in numerous dialects of Appalachian English, uncovering similarities that, I argue, are too numerous and too quantitatively similar to be coincidental, thereby satisfying the third and final standard. Additionally, differences observed in another Indiana community, some 275 miles away, were offered in support of the claim that the Kentuckiana/Appalachian patterns are not “universals” of English vernaculars.

Therefore, I am now in a position to offer an answer, however preliminary (because it considers evidence for only one variable), to the research question: Can the dialect spoken in this area outside of Appalachia reasonably be considered Appalachian? The answer to this question necessarily depends on how we define Appalachian English (e.g., Hazen & Fluharty, 2004). If it is defined geographically, then, no, Kentuckiana English clearly cannot be labeled Appalachian; Harrison County is located some 100–150 miles from the nearest points on the periphery of Appalachia, as defined by the Appalachian Regional Commission. Conversely, if Appalachian English is defined linguistically, then the results of the present investigation suggest that, yes, there is compelling qualitative and quantitative linguistic evidence—in addition to the historical evidence—of Kentuckiana English’s Appalachian-ness. Kentuckiana English, like Ozark English, “operate[s] according to very similar, if not identical, agreement patterns” as Appalachian English (Christian et al., 1988:133). Consequently, any conclusions about the transmission of features from a mother language to a geographically discontiguous daughter variety based on a comparison of Appalachian English and Ozark English can only be strengthened to the extent that similarities also exist between Kentuckiana and Appalachia, on the one hand, and between Kentuckiana and the Ozarks, on the other hand.

In spite of this corroborating value of the Kentuckiana data, a question arises from considering the contextual differences surrounding the Kentuckiana and
Ozark sisters: Precisely how similar must the history shared by mother and daughter be? Christian et al. (1988) are of the opinion that the relative geographic isolation of the people living in the Appalachian and Ozark Mountains and their shared mountain culture are important ingredients in the maintenance of their linguistic similarities. Similarly, Wolfram et al.’s (1999) and Hazen’s (2000a) point of departure is the assumption that the current state of Ocracoke English is due, in large part, to its general lack of historical contact with other dialects. That is, Ocracoke English has long remained free of outside influence precisely because Ocracokers were once an isolated community. In contrast, Kentuckiana does not share a same history of isolation. For instance, in the early days, Harrison County was an important political center, which is reflected even in its name. When formed (in 1808), it was named for then-governor of the Indiana Territory, and, later, 9th president of the United States, William Henry Harrison. A few years later (1813), the territorial capital was relocated here from Knox County, on the Illinois border in southwestern Indiana; after statehood (1816), the state capital remained here until it was relocated to Indianapolis (1825). Also, in the days of heavy riverboat traffic, some of the river towns in particular (i.e., in the southern half of the county) were thriving commercial and cultural ports in the region. Boats carrying goods and/or performance groups would dock at various locations along the river, and people would descend on these communities from the surrounding countryside to buy items that they needed and/or to see a show. So, for its former political, commercial, and cultural importance, it is difficult to maintain that Harrison County constituted an isolated community, even in (or especially in?) the early days. Yet, Kentuckiana English’s system of verbal concord remains very similar to both that of Appalachian English and Ozark English and, in certain respects, it is more similar to them than is the Ocracoke English system. This suggests either that sociogeographical isolation may not be as important for (relative) linguistic conservatism as was once thought (cf. Montgomery, 2000a; 2000b) or that less sociogeographical isolation than was previously thought may be sufficient.

A final, alternate possibility worth considering—but one that, unfortunately, cannot be explored here—is whether Harrison County’s lack of isolation, including its proximity to Kentucky and socioeconomic relations with Kentuckians might have contributed in some way or another to the maintenance of Appalachian features in Harrison County. These socioeconomic relations have been with Kentuckians who, it should be specified, also live some 100 or more miles away from the closest points on the periphery of Appalachia. This is, of course, a question that will have to await future research, but if and when that research is undertaken, it should be remembered that the hypothesis is not one of borrowing, but of contact-induced maintenance. An important step in investigating that hypothesis will not only be determining the degree of contact, but also sorting out the complex nature of the contact between these people who live on opposite sides of the geopolitical and psycho-socio-cultural boundary that is the Ohio River.
NOTES

1. Existentials with *it* are not included in the following analysis.

2. The map in Figure 1 was created using Generic Mapping Tools software (e.g., Wessel & Smith, 1991; 1995; 1998) as implemented on a web platform maintained by Martin Weinelt at http://www.aquarius.ifm-geomar.de. The markers showing the location and approximate boundaries of Harrison County were then added to that output.

3. One of the main parts of Pennsylvania to have contributed heavily to Harrison County’s early population was southeastern Pennsylvania, especially Lancaster County (Ferree & Hardin, 1961; Griffin, 1991), an area which is known today for its large Pennsylvania German population (von Schneidemesser, 2002:399, 400), but which was also originally heavily settled by the Scotch-Irish (Crozier, 1984; Montgomery, 1989; 1997).

4. One of the main parts of Virginia to have contributed heavily to Harrison County’s early population was the Shenandoah Valley (Ferree & Hardin, 1961; Griffin, 1991). The Shenandoah Valley runs approximately along the present-day state line between Virginia and West Virginia and, as such, is right in the heart of Appalachia (cf. Berry 1940:45–46 on the Scotch-Irish influence there). Keep in mind that at the time of early settlement in the Indiana Territory, there was no such thing as West Virginia. West Virginia did not become a state until 1863, as a response to Virginia’s secession from the Union in 1861; prior to that time, there was only Virginia. Therefore, the settlers from Virginia, including those from the Shenandoah Valley, may have come from present-day Virginia or from present-day West Virginia.

5. Many of the pioneers also came directly from Europe (Griffin, 1984; 1991; 1993; also cf. Table 1), some of which would presumably have been Scotch-Irish.

6. Human Subjects Committee requirements for the protection of the speakers’ anonymity require me to refer to the town(s) where the interviews were solicited and conducted by pseudonym(s) only. However, in that the county as a whole seems to constitute a single speech community—at least to this temporary observer’s outsider eyes—and because some of the community members interviewed lived in unincorporated and unnamed rural areas, it seems easier to leave this information unspecified.

7. In addition to 1084 tokens of personal pronouns, this category includes 12 tokens of demonstrative pronouns (e.g., *them were my kids’ ducks* (Spkr 101)) and a single token of a possessive pronoun (*hers* [i.e., her shingles were already off] [i.e., even before the storm damage] (Spkr 207)).

8. An anonymous reviewer suggested running existentials separately to determine whether they follow the same constraints / constraint hierarchy as nonexistentials in spite of their much stronger propensity for plural verbal -*s*. The short answer is that they do not: A single factor group—the speaker’s level of formal education—was found to be significant for the existential data alone (*p* = 0.00). In plural existentials, *there was/is has been* are favored by the less-educated speakers and are disfavored by the more-educated speakers (but still attain a rate of 82%).

9. An anonymous reviewer asks which group or community is referenced by the label “northern white nonstandard vernaculars.” I am unable to say. Christian et al. (1988) did not specify. However, the small amount of data from one northern white variety provided for comparative purposes later (cf. the discussion accompanying my Table 8) seems largely consistent with the claims of Christian et al.

10. Ocracoke English may or may not follow the *[there > NP > they]* pattern of (25): -*s* is certainly more frequent with NP subjects than with pronominal subjects in Ocracoke English (cf. Table 7), but Hazen (1996) and Wolfram et al. (1999) excluded existentials from their analyses because “the ‘frozen’ contracted form *there’s* (or its vernacular alternative forms *it’s* and *they’s*) is currently being adopted as an informal standard norm in American English” (Wolfram et al., 1999:63).

11. Another dialect that adheres to the *[was > is > -s]* hierarchy of plural verbal -*s* in (27) is the variety spoken in Breathitt County, Kentucky (Blanton, 1974). However, because Blanton reported her data differently than the way this is usually done, at least in more recent studies, it is not possible to make any further comparisons, comparisons that would require differentiating between NP and pronominal subjects. For the record, Blanton observed 82% *is/was* in plural existentials, 58% *was* leveling (presumably outside of existentials), 20% plural *is* (again, presumably outside of existentials), and 14% plural verbal -*s* for NP and pronominal subjects combined.

12. This refers specifically to their West Virginia speakers, but the speakers in the Ozark sample were “the socio-economic counterparts of the West Virginia sample” (Christian et al., 1988:4).

13. The reason for this is that Feagin occasionally reported the data from both her working class and upper class speakers, and other times reported only the data from her working class speakers. Therefore, to render the data more consistent, the data from her upper class speakers was excluded here.

14. If the KyIn speakers with more than a high school education are excluded—in the same way that Feagin’s upper class speakers are excluded here—then the figures in Table 6A emerge. Note that the
deviant NP + has cell for KyIn English in Table 6 ceases to be deviant; instead, this deviation moves one cell to the left in Table 6A, to the NP + was cell, and becomes an increase of very small magnitude.

Table 6A. Patterns of concord marking in KyIn after exclusion of the most educated speakers

|      | there | Pro+was | NP+was | NP+has | NP+is | NP+s | Pro+is | Pro+s | Pro+has |
|------|-------|---------|--------|--------|-------|------|--------|-------|--------|
| KyIn | 98.3% | 79.5%   | [81.0%] | 76.2%  | 47.5% | 32.8%| 3.3%   | 0.4%  | 0%     |
|      | 113/115 | 101/127 | 17/21  | 16/21  | 29/61 | 20/61| 3/91   | 1/235 | 0/91   |

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