

The Status of *ain't* in Philadelphia African American English

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Abstract

This paper investigates use of *ain't* in a corpus of naturalistic speech from forty-two African-American Philadelphians. Use of *ain't* in past/perfective contexts where it varies with *didn't* is considered a unique feature of AAE. This use is compared in apparent time to uses of *ain't* in tense-aspect environments shared with other English varieties. Results show that past/perfective uses of *ain't* increased during the twentieth century while use in other contexts remained stable, supporting the hypothesis that past/perfective uses resulted from recent change. Generalized linear models for *ain't* in past/perfective and other contexts show that sociostylistic and linguistic constraints are otherwise the same across contexts. Finally, evidence that a past/perfective use of *ain't* resulted from either the phonetic reduction of *didn't* or a shift in meaning from uses of *ain't* in anterior contexts is examined.

Keywords: African American English; tense; aspect; morphosyntactic change

This study examines the use of *ain't* in six grammatical constructions correlated with different tense-aspect meanings in a Philadelphia variety of African American English (AAE), including an investigation of the expansion of *ain't* to the past tense where it has past/perfective meaning and replaces *didn't*, a unique feature of AAE (Labov, Cohen, Robins & Lewis, 1968). As such, this paper aligns with research on other recent innovations in the tense-aspect system of AAE argued to have occurred during the twentieth century, such as the past/perfective use of *had + V(-ed)* (Cukor-Avila, 2001; Cukor-Avila & Bailey, 1995; Rickford & Th  berge-Rafal, 1996), habitual *be* (Bailey & Maynor, 1987; Cukor-Avila & Bailey, 1995) and resultative-conditional *be done* (Dayton, 1996; Labov, 1998). Because this cluster of innovations differentiates AAE from other varieties of English, they are often viewed as evidence that Black and White vernacular varieties have diverged, especially among lower classes in the urban North (Bailey & Maynor, 1987; Labov & Harris, 1986). This theory, known as the *Divergence Hypothesis*, attributes the recent rise of innovative grammatical features in AAE to two related population movements in northern and western cities: first, the mass migration of African Americans from the rural south to northern and western cities during the early and middle of the twentieth century (*The Great Migration*), and the subsequent flight of white urban residents from city centers to the suburbs

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Unlike other varieties of English that have *ain't*-negation, AAE boasts two additional uses where *ain't* varies with auxiliary *DO*. First, *ain't* can precede the main verb *got(ta)* in the present tense (2a). Second, *ain't* can replace *didn't* in past tense constructions where it may be followed by a base (2b) or preterit (2c) verbal form (e.g., *ain't* + V (-*ed*)). This use is widely reported in the literature and is considered a unique feature of AAE given its productivity among speakers (Fasold & Wolfram, 1970; Green, 2002; Howe, 2005; Labov et al., 1968; Loman, 1967; Maynor, 1997; Weldon, 1994; Wolfram, 1969).

- (2) a. I ***ain't*** even got time for that. I'll talk to you later someday.
 "I don't even got/have time for that." [Camille, f, age 17/1964]
- b. I ***ain't*** say I forgot it. I said I didn't think right.
 "I didn't say I forgot it. I said I didn't think right."
 [Howard, m, age 29/1952]
- c. He ***ain't*** said anything to me in the house.
 "He didn't say anything to me in the house." [Janet, f, age 16/1965]

This use of *ain't* to replace *didn't* in AAE is considered a recent innovation due to findings of age stratification in apparent time for northern, urban varieties like in Philadelphia and Harlem, New York (Ash & Myhill, 1986; Labov et al., 1968). Real time studies comparing contemporary urban use of *ain't* with that in varieties believed to represent early or conservative ex-patriot AAE also support a theory of increase over time. For example, speakers from the Ex-Slave and Virginian Narratives as well as speakers of Samaná and African Nova Scotia English produce *ain't* for *didn't* between 2-6% of the time, while AAE speakers in 1960s Harlem and Cleveland during the 1990s have rates of use between 32-50% (Howe, 2005). Wolfram and Thomas (2002) further showed that *ain't* for *didn't* is increasingly used among rural African Americans in Hyde County, North Carolina, most likely due to contact with urban speakers.

As for the social profile of such a change, there is some evidence that speakers in Philadelphia may have been less consciously aware of the use of *ain't* for *didn't* compared to other variable contexts where *ain't* was also used, though use of *ain't* for *didn't* was equally prevalent in the community at the time (Labov, 1996). This finding suggests that use of *ain't* for *didn't* may have been a change from below, camouflaged by other uses of *ain't* already present in the language.

The origins of *ain't* for *didn't*

If the use of *ain't* in place of *didn't* is an innovation, how and why did speakers begin using it in this context? In this section, two proposed linguistic mechanisms for the expansion of *ain't* to contexts of *didn't* will be examined: (1) the phonetic reduction of *didn't* to *mt/ain't* on analogy with the reduction of negative auxiliaries that originally gave rise to *ain't*, and (2) the diachronic development of past/perfective meaning for present perfect constructions, where *ain't* varied with *hasn't/haven't*, which originally expressed anterior meaning.

The phonetic reduction of *didn't*

The first hypothesis involves the phonetic reduction of *didn't* in discourse. Fasold and Wolfram (1970) proposed deletion of the initial /d/ and assimilation of the medial /d/ with the following nasal such that *didn't* became [nt] and then converged with uses of *ain't* already present in AAE. Rickford (1980) suggested that initial *d*-deletion in AAE operates according to a sonority scale, whereby less sonorant segments preceding *didn't* promoted consonant cluster deletion, a theory which aligns with the high rate of final consonant cluster deletion in AAE (Wolfram & Fasold, 1974) and initial *d*-deletion in English Creole languages and AAE (Rickford, 1980). However, persistent synchronic reflexes of this potential origin have not been found. Specifically, Weldon (1994) found no significant relationship between preceding consonants, hypothesized to promote use of *ain't* as a remnant of *d*-deletion, and use of *ain't* over *didn't*. Notably, Weldon's data also show that there are roughly ten times as many vowels ($n = 56$) as consonants ($n = 6$) preceding *ain't* in this context, which is an unexpected finding if more sonorous segments like vowels should promote retention of initial /d/.

Another potential source of *d*-deletion comes from Bybee and Scheibman (1999), who demonstrated that auxiliary *don't* is reduced most in the contexts where it occurs most frequently, namely, following the first person singular subject pronoun *I* and preceding the verbs *know* and *think*. They argue that the collocations *I don't know* and *I don't think* form constituents that are stored and processed as units with specialized discourse pragmatic functions, and as such their internal constituents are more likely to undergo phonetic reduction. The frequent reduction of /d/ in *didn't* and *don't* to nasalized vowels in AAE may then be attributable to similar processes since subject pronouns overwhelmingly precede instances of *ain't* in several tense-aspect contexts in AAE (Walker, 2005; Weldon, 1994), and some work shows first person singular pronouns occurring most frequently preceding *ain't* (Loman, 1967; Maynor, 1997).

Present perfect constructions and the shift to past/perfective meaning

Bybee, Perkins, and Pagliuca wrote, "For a [construction] to have two or more uses implies a diachronic relation between [them]" (1994:52–3). The construction *ain't* + V(-ed) can be used synchronically in contexts of both anterior (*ain't~haven't/hasn't*) and past/perfective (*ain't~didn't*) meaning in AAE. Thus, another theory on the origin of *ain't* for *didn't* proposes that it developed from anterior uses in negated present perfect constructions (Smith, 2015).

The English present perfect (*have/has(n't)* + past participle) canonically conveys anterior meaning, which establishes a relationship between a past state or event and the moment of speech. This contrasts with the past tense construction (preterit verbal form or *did[n't]*), indicating that a situation is viewed as temporally bound (perfective) and occurred before the moment of speech (past). A major distinction between present perfect and past tense constructions in English involves their use with past time adverbs like *yesterday*. Because the present perfect's reference time can overlap with the moment of speech, such adverbs are frequently restricted

from use with it while they are used freely with the past tense (Klein, 1992; Portner, 2003). Comrie (1976) broke the English present perfect down into four subtypes, each exemplified in (3a-d) below (modified from examples from Comrie [1976]).

- (3) a. Jan has arrived. [Perfect of Result]
 b. Sam has been to America. [Experiential Perfect]
 c. We've lived here for ten years. [Perfect of Persistent Situation]
 d. The Eagles have just won the Super Bowl! [Perfect of Recent Past]

Though some sentences convey continuation of a past situation into or overlapping with the present (e.g., [3c]), others describe situations that may have occurred entirely in the past (e.g., [3a, b, d]). Such present perfect sentences are argued to convey either the “resultant state” of a past action (Perfect of Result) or “current relevance” to the discourse situation (Experiential Perfect or Perfect of Recent Past). The use of *ain't* in present perfect constructions dates back to the 1600s in varieties of English (Anderwald, 2002; Jespersen, 1961), and *ain't* is used in this context in AAE. For example, in (4) below, Tommy not seeing his father is understood to overlap with the moment of speech, aided by the temporal phrase *in such a long time*.

- (4) And it's already done since I *ain't* seen him in such a long time.
 [Tommy, m, age 18/1965]

It is noteworthy that negation may have an atelicizing effect on the situation described by the present perfect (Elsness, 1997; Schwenter & Torres Cacoullous, 2008), which may favor continuative interpretations. In contrast, the affirmative counterpart to this sentence (*I've seen him [since then]*) could be understood as describing at least one single past event.

Smith (2015) proposed that it is the use of *ain't* to convey anterior meaning in present perfect constructions that gave rise to its use in past/perfective contexts in AAE. Smith argued that this expansion was driven by frequency effects since he found *ain't* in past/perfective contexts only with high frequency verbs in a corpus of contemporary fiction. Smith's (2015) theory aligns with crosslinguistic diachronic data from several Romance and Germanic languages demonstrating semantic shift by auxiliary + participle constructions expressing anterior meaning to past or perfective meaning, commonly referred to as the Aoristic Drift (Bybee & Dahl, 1989; Bybee et al., 1994; Comrie, 1976; Schwenter & Torres Cacoullous, 2008 for Mexican and Peninsular Spanish; Squartini & Bertinetto, 2000 for Romance). In these languages, the periphrastic construction increased in use over time and eventually supplanted synthetic past tense constructions to express past/perfective meaning.

The shift from anterior-to-past/perfective is part of a larger shift in which a construction that originally expresses resultative meaning, used to describe a state that exists as the result of a past action, evolves into one expressing anterior meaning before turning into a past/perfective marker. Because *have* + participle constructions are frequent sources for resultatives that later develop into anteriors, this theory does not require the use of *ain't* in contexts of past/perfective meaning to have derived

directly from *didn't*. The semantic change thought to be involved in this shift is the gradual generalization of the construction to reference a situation that occurred at a nonspecific point in time prior to the moment of speech.

This paper adds to Smith's (2015) proposal in the following ways. First, I underscore the role that temporal ambiguity might play in this development, following Schwenter & Torres Cacoulios (2008). *Ain't* is inherently ambiguous as it provides no overt morphological cues to tense-aspect and is used across tense-aspect categories. It becomes further temporally ambiguous when it occurs in absence of temporal expressions that might situate the reference time of the utterance as either past or present. Therefore, I will also briefly examine the use or nonuse of temporal expressions that co-occur with *ain't*. Second, I hypothesize that the expansion of *ain't* to a past/perfective variant of *didn't* may have been aided by the lexical semantics of verbs in *ain't* + V (-ed) constructions. Portner (2003) demonstrated that while most dynamic verbs in present perfect constructions are interpreted as having occurred wholly in the past, stative verbs may allow both a continuative or past/perfective interpretation (see also Comrie, 1976:49–50). Schwenter & Torres Cacoulios (2008) likewise found that the present perfect disfavors achievement predicates in Mexican Spanish, where the construction is at a less advanced stage of grammaticalization as a past/perfective compared to Peninsular Spanish, where no Aktionsart restrictions were found. I will therefore look for indications that dynamic verbs may have played a role in the expansion of *ain't* by examining their distribution in both anterior and past/perfective contexts.

This hypothesis partially aligns with work by DeBose (1994), who proposed that *ain't* in AAE is a temporally neutral negator, and the tense-aspect meaning of sentences containing *ain't* is conveyed through verbal stativity, similar to what happens in many West African and English Creole languages related to AAE. According to DeBose, dynamic verbs give rise to past/perfective interpretations, and stative verbs to anterior interpretations. Though the distribution of verbs following *ain't* by stativity has already been shown to vary (Weldon, 1994), this will nonetheless be reinvestigated here for indications of the role of dynamic verbs in the shift from anterior to past/perfective for *ain't*.

The present perfect and past tense in AAE

A question that must be asked is why a change from anterior to past/perfective meaning would happen for *ain't* + V(-ed) constructions in AAE, but not in other varieties of English, particularly those varieties of English that also use *ain't*?

Although the English present perfect began shifting from resultative to anterior meaning during Old and Middle English, in Modern English it appears that, unlike several Romance and Germanic languages where the present perfect has generalized, use of the past tense is instead increasing at the expense of the present perfect, especially in American English (Elsness, 1997). The predominance of past tense constructions in varieties of American English like AAE is highlighted by the fact that they frequently occur with temporal adverbs formerly associated with anterior meaning such as *already* and *yet*. In fact, AAE is reported to allow the use of past tense constructions (preterit verbs) to convey anterior meaning (Dayton, 1996; Déchaine, 1993; Green, 2002; Labov et al., 1968; Terry, 2010), and the status of the present perfect

construction as a fully integrated part of the grammar has frequently been questioned (Dillard, 1972; Labov et al., 1968:223; Loflin, 1967; Rickford & Th  berge-Rafal, 1996; Tagliamonte, 1997). Still, there is evidence of a shift in English uses of the present perfect constructions with past time denoting adverbs like *yesterday*, for example, in the British National Corpus (Schaden, 2009:124). Likewise, Australian English allows the present perfect to co-occur with past time adverbials and be used in narrative sequences (Engle & Ritz, 2000).

As for AAE, there are also clues to further movement along the anterior-to-past/perfective trajectory. First, there has already been a shift from past anterior to past/perfective meaning for the *had* + V(-*ed*) construction, also during the twentieth century. Cukor-Avila and Bailey (1995) showed that *had* + V(-*ed*) was first used in the orientation clauses of narratives to perform a backgrounding function, as an extension of its use in the pluperfect, and gradually moved into complicating action clauses as it grammaticalized to refer to past, completed events among AAE speakers in Texas. Rickford and Th  berge-Rafal (1996) found that *had* + V(-*ed*) with past/perfective meaning occurs predominantly with dynamic verbs in the first complicating action clauses of narratives among preadolescents in East Palo Alto, CA.

Second, there are some examples of affirmative present perfect constructions being used in past/perfective contexts in Philadelphia AAE. For example, in (5) below, Malika uses the present perfect to describe her mother not giving her affection although her mother has been deceased for several years, demonstrating that, for her, subjects in present perfect constructions are not required to be currently living (Schaden, 2009).

- (5) ... That was the only time in my life that I remember mom givin me some affection, to be honest. I'm not sayin that she *hasn't given* me affection, but for some reason or another I don't seem to remember it.

[Malika, f, age 30/1951]

The question remains, however, why multiple constructions in the grammar of AAE would be further along in this shift. Some have suggested that the use of *ain't* in past/perfective contexts, in particular, points to the African or Creole origins of AAE (DeBose, 1994; DeBose & Faraclas, 1993; Rickford, 1980). On the other hand, work by Weldon (1994) and Walker (2005) arrives at the conclusion that AAE *ain't* is most likely derived from English negated auxiliary contractions given similar distributions and constraints on use.

The remainder of this paper investigates the use of *ain't* in a variety of AAE spoken in Philadelphia with particular attention paid to the use of *ain't* for *didn't* in the hope that comparing this use of *ain't* to its uses in other contexts will shed light on its origins and development in past/perfective contexts.

Data and methods

The UMLC corpus

The data comes from recorded casual conversations collected for the Influence of Urban Minorities on Linguistic Change Project [UMLC] (Labov, 1984). The current

study uses data from forty-two corpus speakers who represent a diversity of African American experiences within Philadelphia.²

Speakers were recorded in conversation with a member of Philadelphia's Black community in his early 30s, Wendell A. Harris, nicknamed "Popcorn." Many recordings were made within Harris's social network, including close family members and friends. Most of the speakers lived, worked, and interacted on a daily basis, primarily with other Black speakers (Baugh, 1983). Previous work pinpoints a "core" network of speakers within the corpus who had the most advanced use of narrative *-s* (Labov & Harris, 1986) as well as a neutral short-*a* system, a characteristic of speakers deeply embedded in Philadelphia's Black community (Labov, 2014). Seven "core" speakers are included in this study. However, the sample also includes speakers with more frequent contact outside of Harris's network and the Black community more generally.

The forty-two speakers analyzed here grew up either in Philadelphia or various southern states (Alabama, Georgia, North/South Carolina, Maryland, and Virginia). Those born in the South moved to Philadelphia as adolescents or adults, reflecting the migratory patterns of the Great Migration. The age and gender distribution of the forty-two speakers is shown in Table 1. Speakers ranged in year of birth from 1901 to 1969, but cohort years are rounded.

Most adolescent speakers were still in high school at the time (10% of all speakers). Otherwise, speakers' educational experience ranged from having completed some high school (28%) to completing some higher education (14%), ranging from half a year at community college to four-year degrees or further professional training. Most speakers, however, had only completed high school (48%).

Extraction and semantic coding

The average duration of each recording for the forty-two speakers was forty-five minutes. Recordings were orthographically transcribed in Elan by the author or a research assistant. The author controlled transcription quality during auditory coding of the variables.

All tokens of *not* and *n't*-negation in the six grammatical contexts where *ain't* is a possible variant (shown below in Table 2) were extracted from recordings. Since the main interest was in factors conditioning the use of *ain't* as opposed to any other variant, all variants were treated as possible choices to fulfill the function of negation in

Table 1. Age and gender for 42 speakers in the UMLC Corpus (Labov, 1984)

Birth Year Cohort	Female	Male	Total
1900-1944	4	10	14
1945-1959	4	15	19
1960-1975	5	4	9
Total	13	29	42

Table 2. Grammatical variables in which *ain't* is a variant

Grammatical Variable/Construction	Auxiliary Variants	Following Verb Morphology	<i>n</i>
Copula	<i>ain't, isn't, aren't, 's not, 're not</i>	Nonverbal predicate	380
Present Progressive	<i>ain't, isn't, aren't, 's not, 're not</i>	<i>V-ing</i>	172
Periphrastic Future	<i>ain't, isn't, aren't, 's not, 're not</i>	<i>gon(na)</i>	143
Present Perfect	<i>ain't, hasn't, haven't</i>	<i>V-ed/-en</i>	98
Present Tense	<i>ain't, don't</i>	<i>got</i>	113
Past Tense	<i>ain't, didn't</i>	<i>V(-ed)</i>	888

AAE (Labov, 1993; Wolfram, 1991), including utterances in which the copula or auxiliary BE was absent.³ Table 2 describes the variants, observations, and observed following verbal morphology for all six variable contexts. Several sentence types were excluded from the token counts in Table 2, including sentences where an uncontracted form of the auxiliary was used since they typically express emphasis or contrast in AAE (Fisher, 2018; Green, 2002). Additionally, in past tense constructions, phonetic forms “intermediate” between *ain't* and another auxiliary (e.g., [ɪnt] without an initial [d] or diphthongal vowel) were also excluded since they could be truncated forms of either *didn't* or *ain't*. In total, there were fifty-one exclusions of such intermediate forms in sentences that conveyed past/perfective meaning.

In most cases, the verbal complement following *ain't* disambiguated one context from another except for past tense and present perfect constructions, which both allow *-ed* verbs and other preterit forms following *ain't*. In these cases, the semantics of the utterance were determined by its discourse context, such as whether it described a past/perfective situation that was no longer occurring (past tense) or a situation that continues up to or overlaps with the present (anterior/present perfect).⁴ Continuation and/or overlap with the moment of speech was prioritized for categorizing utterances as anterior as opposed to present relevance, which is much more difficult to interpret. In general, this was aided by the fact that negative present perfect constructions lend themselves to atelic or continuative readings. Temporal expressions that reflected continuation into the present were often integral in determining anterior meaning, as noted by Portner (2003:489). In general, temporal expressions that indicated time reference, including *already*, *yet*, and *never*, were more frequently used in anterior utterances compared to past/perfective ones.

The narrative in (6) offers insight into how this semantic coding was determined. This narrative contains three instances of the construction *ain't* with *bark*, the first two of which were coded as present perfect (anterior meaning) and the third as past tense (past/perfective). Note that the main verb *bark* may appear in base form due to final consonant cluster deletion.

- (6) Gw: **Peanut *ain't* bark since I had him, Pop.** That motherfucker will not bark for shit.

WH: He used to bark all the time in the yard.

Gw: {Laughs} **I *ain't* never heard Peanut bark.** Ron be teasin' him, tryin' to get him to bark. That dog will not bark for nothin' [...] he jumped all the way over the couch, over my head the other night. Ron had his mouth, tryin' to, you know, see if he'd growl or bark [...] he got away from Ron [...] He jumped all the way over me, over the couch [...] **and he still *ain't* bark.**

[Gwen, f, age 24/1957]

In (6), the use of the adverb *since* in Gwen's first utterance clearly demonstrates continuance of the "not barking" situation from the time that she got her dog, "Peanut," up to the present. She continues, *I ain't never heard Peanut bark*, which, in context, expresses the same continuation into the present, aided by the adverb *never*, to emphasize that the situation persists. However, in the third utterance, Gwen reinforces the fact that Peanut has never once barked by telling a story about a specific time in the past when he did not bark at Ron.

Sentences were only coded as semantically ambiguous between anterior and past/perfective meaning in total absence of discourse cues to time reference, such as the utterance *I ain't do nothing* in (7).

- (7) D: Yeah they had—they caught me and everything. So they um—

WH: Were they roughing you up too?

D: Yeah, they were. The – especially whatever his name was, Officer Johnson. So he was getting all smart with me. I was like, "What you holding me for? I ain't got nothing. **I *ain't* do nothing.**"

[Donette, f, age 16/1965]

In (10), it is unclear whether Donette means, "I didn't do anything" for which to be held by police in the first place, or "I haven't done anything" up to the point in time of the altercation. Perhaps the difference is of little consequence in this scenario. Nonetheless, sentences coded as ambiguous ($n = 32$) were excluded from the main analysis but will be discussed in Section 6 as they may shed light on the pathway of change from anterior to past/perfective meaning for *ain't*.

Methods of analysis

Two main analyses were performed on the data: (1) an investigation of the frequency of *ain't* in general and over time in the different variable contexts, and (2) mixed effects modeling to explore the social and linguistic factors affecting use of *ain't* across these contexts. For each analysis, the data were divided into two groups: one group of all past tense auxiliary tokens of negation (*ain't* ~ *didn't*), and another group of all other auxiliary tokens of negation (*ain't* ~ *isn't*, *aren't*, *haven't*, *hasn't*, etc.). Examining separate rates of *ain't* in the five nonpast tense contexts presented a challenge as token counts for individual environments were typically much lower than for the past tense. For that reason, the data in nonpast tense contexts were combined to

provide an overall rate of use of *ain't* in these contexts for each speaker. Since these five variable contexts represent uses of *ain't* that have been used in English varieties, including AAE, for centuries, a comparison in rates of use between them and the past tense context provides a comparison of established and innovative contexts of *ain't*.

For each speaker, the frequency of *ain't* and relevant auxiliary variants was calculated across their recording(s) and plotted as the dependent variable with speaker birth year as the independent variable for an apparent time analysis (Bailey, Wikle, Tillery, and Sand, 1991). One limitation of this method is that an increase in the use of a nonstandard variant in apparent time does not necessarily indicate generational language change and may instead identify a peak in vernacularity during adolescence (Rickford & Price, 2013; Wagner, 2012). However, a comparison of apparent time use of *ain't* in the past tense, innovative context with other, more established contexts may provide some insight into whether the variant has been used differently between contexts by speakers over time. Only rates for speakers who had more than ten auxiliary tokens total are plotted in Figure 1 (thirty-seven speakers) and Figure 3 (twenty-seven speakers). Rates of *ain't* were then fit to a linear model predicting rate of *ain't* from birth year using the `lm` function in R (R Core Team, 2019). For the past tense, an additional term for birth year squared was included to better capture the data's curvature and avoid predicting negative frequencies.

Mixed effect modeling was also carried out on the data to examine factors that might influence the use of *ain't* across grammatical contexts. Two generalized linear models were fit over the total observations from all forty-two speakers using the `lme4` package in R (R Core Team, 2019). The first model included 888 observations of either *ain't* or *didn't*. The second included 906 observations of *ain't* or all other negated auxiliary variants. These figures include tokens from those speakers set aside during the individual frequency analysis. The dependent variable was set as the choice between *ain't* and other negated auxiliary variants, and a best model was fit by maximum likelihood estimation using the `lrttest` function in the `lmttest` package. The following social, stylistic, and linguistic factors were included as independent variables in both models.⁵

- Year of birth (YOB).
- Speaker gender (Gender). All speakers were identified as male or female.
- Years of education (Education). Speakers fell into one of four categories: currently in middle or high school (currentHS), completed some high school (<HS), completed high school (HS), or completed some higher education (HS+).
- Region of origin (Region). Speakers were coded as either Philadelphian or southern according to where they spent the most amount of time during the prime years of dialect acquisition from peers (roughly age 5–18).
- Presence or absence of negative concord (NegCon).
 - Presence: I *ain't* finna marry *nobody*. [Vanessa, f, age 25/1957]
 - Absence: I *ain't* got that kind of money. [Valerie, f, age 38/1944]
- Preceding phonological segment (PreSeg).
 - Consonant (C): That damn novacaine *ain't* shit. [Alan, m, age 36/1945]
 - Vowel (V): He *ain't* even got a straw. [Andrew, m, age 27/1954]
 - Pause (P): ... *Ain't* nobody better than me. [Mr. Valentine, m, age 81/1901]

- The stativity of the verb phrase following *ain't* (Stativity).
 - Stative: He *ain't wanna* give me my money. [Tito, m, 23/1959]
 - Dynamic: I *ain't run* all the way to the next stop. [Howard, m, 29/1952]

Ain't in the past tense

For the past tense context, a total of 888 tokens of *ain't* and *didn't* was extracted from all forty-two speakers. Average *ain't* use for all speakers is 22.3%. [Figure 1](#) shows individual speaker rates of *ain't* for thirty-seven of the forty-two speakers. Each point represents the frequency of *ain't* for one speaker with the size of the point representing that speaker's token counts. Members of the "core" social network are represented by triangles. Points for speakers with the same frequency and the same birth year are overlaid in the visual display.

The regression confirms that younger speakers use *ain't* for *didn't* at higher frequencies in this sample of data. Importantly, eleven of the twelve speakers born prior to 1940 have rates of use below 11% with eight speakers using *ain't* 0% of the time. These results are similar to rates among speakers of early and conservative varieties of AAE (Howe, 2005). In contrast, rates among speakers born after 1940 coincide with other contemporary studies (Howe, 2005; Labov et al., 1968; Weldon, 1994). This pattern suggests a period of low level variation for *ain't* use in past tense contexts that increased dramatically after 1940 in Philadelphia.

[Figure 1](#) also highlights the extreme linguistic behavior of the "core" group of AAE speakers. Recall that these speakers are those defined by Labov and Harris (1986) as using the most consistent form of AAE and having predominantly Black social networks. The seven speakers represented by triangles in [Figure 1](#) are the central part of this network. These speakers, four of whom are adolescents, have the highest rates of *ain't*. For example, the speaker labeled as Janet, a 16-year-old female, uses *ain't* 64% of the time in the past tense across five recordings ($n = 39$). The four adolescent "core" speakers also represent more than half of the adolescents (born after 1964) in this sample of data (seven total). However, core speakers and adolescents are not the only ones with rates above 25% or even 50%. Thus, they are not the sole drivers of high rates for *ain't* in the past tense in this data.

Results of the generalized linear model of *ain't* ~ *didn't* variation are presented in [Table 3](#). An increase in year of birth is still a significant predictor of use of *ain't*, demonstrating that younger speakers in this data are more likely to use *ain't* at higher frequencies even when other social and linguistic factors are taken into account.

Social and stylistic factors

Gender does not emerge as a significant predictor of use, nor does the interaction between YOB and gender, though men do slightly favor use of *ain't* in keeping with previous findings (Antieau, 2015; Feagin, 1979). Results for speaker region of origin show a difference in past tense use of *ain't* by the seven speakers from the South included in the model. These speakers use *ain't* less frequently compared to those from Philadelphia, regardless of age ([Figure 2](#)), which is consistent with *ain't* in the past tense proliferating among northern, urban residents during the period

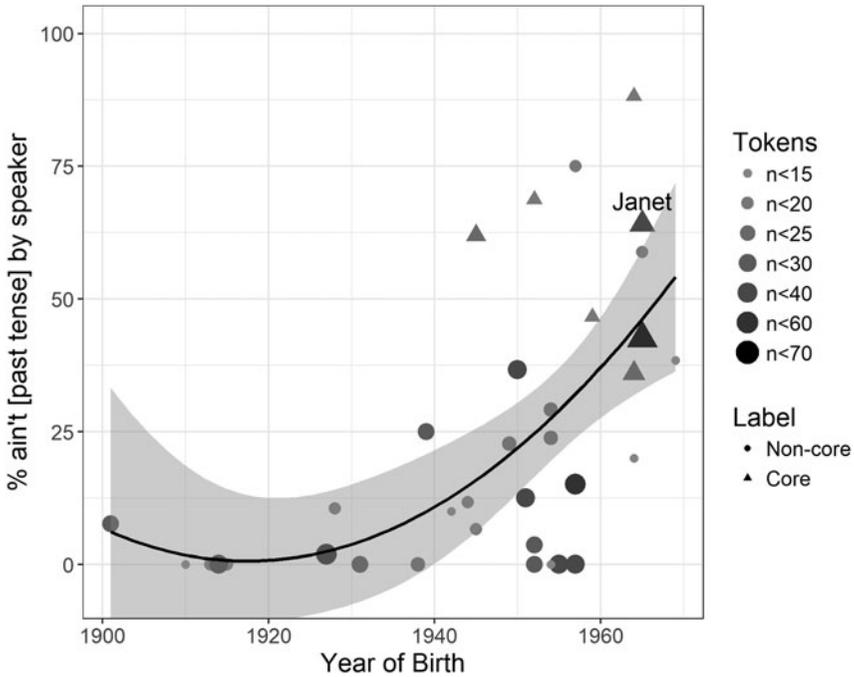


Figure 1. Increase of *ain't* in past tense contexts in apparent time for thirty-seven speakers ($p < 0.001$ / Adjusted $R^2 = .3489$ in a linear regression with quadratic term). The triangle for the speaker Janet is labeled to illustrate the extreme linguistic behavior of the “core” group of speakers.

of the Great Migration. However, since some southern speakers (gray squares in Figure 2) do use *ain't* in this context, albeit at very low rates, this disparity could point to regional differences rather than origins.

Results for negative concord and education are consistent with the status of *ain't* as a vernacular variant. They confirm previous findings that *ain't* collocates with negative concord (Fasold & Wolfram, 1970; Foreman, 2015; Weldon, 1994), indicating that speakers use *ain't* in stylistic contexts where negative concord is also used.⁶ Additionally, speakers in the lower three groups for education (i.e., those that did not attend higher education) significantly favor use of *ain't* in the past tense. Having any experience in higher education disfavors it, mirroring findings by Hazen et al. (2015) and Antieau (2015) and indicating that there is increased social pressure on college-educated speakers to avoid using *ain't* when they come from speech communities where *ain't* is a staple of the grammar.

Linguistic factors

In keeping with Weldon's (1994) results, this study finds that preceding vowels significantly favor use of *ain't* in the past tense. This is contrary to what would be expected if *ain't* for *didn't* is derived from *d*-deletion and the reduction of *didn't* following a consonant. A closer look reveals that this effect is driven by the fact that *ain't* most often occurs following pronominal subjects, which overwhelmingly end in

Table 3. Generalized Linear Model predicting use of *ain't* in past tense contexts for 42 speakers (888 total tokens of *ain't-didn't*)

	Estimate	Standard Error	<i>p</i> -value	<i>n</i> , % <i>ain't</i>
Intercept	−8.4223	1.0505	1.08e-15***	---
scale(YOB)	1.6675	0.5920	0.004850 **	---
Gender (vs. <i>female</i>)	0.5604	0.4245	0.186797	385, 28%
<i>male</i>				503, 18%
Education (vs. <i>HS+</i>)	2.9261	0.8604	0.000672***	182, 1%
<i>currentHS</i>				138, 47%
<HS	3.5767	0.7627	2.73e-06***	217, 28%
<i>HS</i>	2.8060	0.7501	0.000183***	351, 20%
Region (vs. <i>South</i>)	0.9115	0.4096	0.026067*	181, 5%
<i>Philadelphia</i>				707, 27%
NegCon (vs. <i>no</i>)	1.6781	0.2253	9.52e-14***	690, 15%
<i>yes</i>				198, 48%
Stativity (vs. <i>stative</i>)	1.0829	0.2110	2.87e-07***	433, 13%
<i>dynamic</i>				455, 31%
PreSeg (vs. <i>cons.</i>)	1.7118	0.5138	0.000863***	83, 6%
<i>vowel</i>				787, 24%
<i>pause</i>	−0.5699	1.2570	0.650290	18, 6%
YOB*Gender: male	−0.4551	0.6499	0.483792	---

vowels. Table 4 shows that, of the 198 tokens of *ain't* found in past tense contexts, 93% are preceded by subject pronouns.

Though preceding vowel favors use of *ain't* compared to use of *didn't*, subject pronouns ending in vowels are also more likely to occur preceding *didn't* (86% of 690 tokens, chi-squared test, $p < 0.001$). At first glance, this pattern indicates that if *d*-deletion reduced *didn't* to (*a*)*in't*, any reflexes of that origin are no longer present in synchronic data. Assuming that subject pronouns are used at roughly the same rates today as they were in the past, the phonological environment believed to promote *d*-deletion may not be robust enough in natural speech to have sparked such a change on its own.

In Bybee and Scheibman (1999), auxiliary *don't* was most frequently reduced following the first person singular subject pronoun, *I*, the context where it occurs most frequently. In the Philadelphia data, the most frequently used subject pronoun with both *ain't* and *didn't* is indeed the first person singular, as in *I ain't/didn't*, used roughly half the time in both contexts (52% of all *ain't* and 46% of all *didn't* utterances). Bringing the intermediate forms (e.g., *mt*) into this discussion confirms these findings: it also occurs most frequently when preceded by the subject pronoun *I*. Thus for this data as well, *I ain't/didn't/mt* could potentially function as a single unit of meaning, perhaps with a particular pragmatic function when followed by certain verbs. A more fine-grained examination is clearly necessary, but still, the reduction of *didn't* due to the frequency of collocation with other elements of the sentence could be one possible mechanism by which *didn't* became *ain't* in AAE.

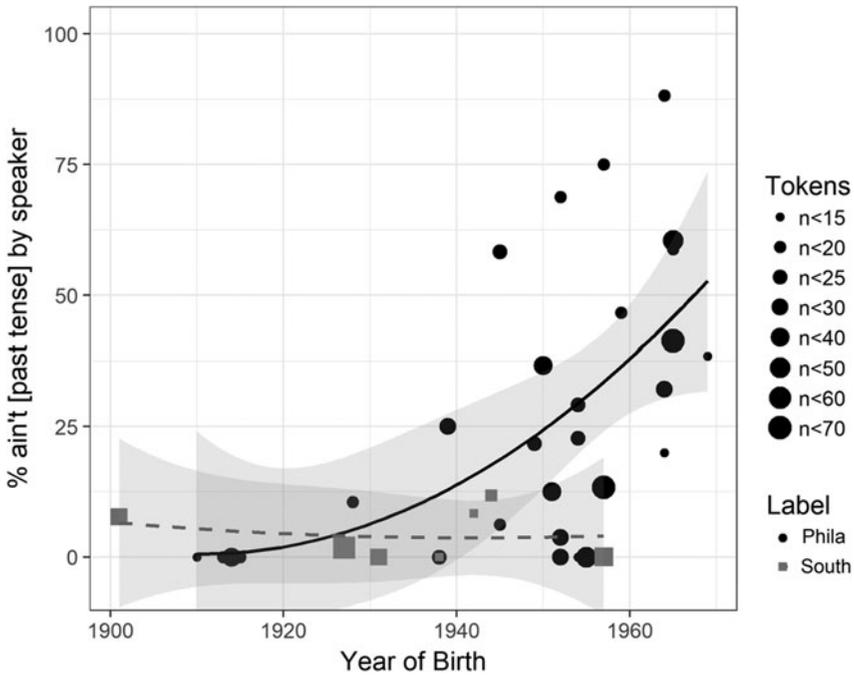


Figure 2. Frequency of *ain't* in the past tense in apparent time by region (Philadelphia = black points and triangles (core speakers) and solid regression line, South = gray squares and dashed gray regression line) for thirty-seven speakers.

Table 4. Cross-tabulation of sentence subjects by phonological segment preceding *ain't* in the past tense (Chi-squared test, $p < 0.001$)

	Subject Pronouns	Other Subject Nouns	<i>n</i>
Preceding Consonant	1	4	5
Preceding Vowel	184	8	192
Preceding Pause	0	1	1
Total	185	13	198

A second linguistic factor examined was the status of following verb phrases as either stative or dynamic. First, within the corpus there are frequently stative verbs following *ain't* that describe past/perfective states as in (8). In this example, Tommy describes an earlier point in time, delimited by the *when* clause, when he was unaware of the relationship between his friend, Will, and girlfriend, Rita.

- (8) WH: How you meet Rita?
 T: [...] Ah, she used to talk to my boy Will [...]
 WH: Is he mad at you now?

T: Oh no, 'cause see, one day, one day I saw Rita down the way, down his way, and um—**that's when I ain't know they was talkin**—and I gave Rita my phone number...

[Tommy, m, age 18/1965]

Sentences like that in (8) demonstrate that stative verbs are possible following *ain't* in past tense contexts. However, the model reveals that dynamic verbs significantly favor use of *ain't* over *didn't*. This finding lends some support to the hypothesis that dynamic verbs in *ain't* + V(-ed) constructions that may have originally expressed anterior meaning pushed speakers toward a past/perfective interpretation. This finding also partially aligns with DeBose's (1994) claim that dynamic verbs promote a past/perfective interpretation, though, like Weldon (1994), the Philadelphia data also demonstrate that both stative and dynamic verbs may follow *ain't* in this tense-aspect context.

Ain't in established contexts

A total of 906 tokens of *ain't* or negated BE/HAVE/DO in copular, present progressive, periphrastic future, present tense (*got*), and present perfect constructions were extracted for all forty-two speakers in the sample (see Table 2 for token counts by environment). These represent the five grammatical contexts in which *ain't* has been used in varieties of English for centuries. Results are shown in Figure 3. Rates were calculated for twenty-seven of the forty-two speakers with more than ten tokens of *ain't* across the five contexts combined. Token counts for each individual are illustrated by the size of the point in the plot. Average *ain't* use for all twenty-seven speakers is 65.8%, nearly three times the rate of *ain't* in past tense contexts.

In Figure 3, the linear regression of speaker rates is not significant, indicating no change over time for *ain't* in the five established grammatical contexts. Though there is little data for speakers born before 1940, these speakers show much higher rates of *ain't* in these contexts (e.g., 33-96%) compared to the past context (0-25%). The seven triangles in the upper right corner are the same "core" speakers highlighted in Figure 1. Once again, these are speakers producing *ain't* at some of the highest levels in this data.

Each of the five grammatical contexts combined above was also examined individually with speaker data pooled into three birthyear cohorts (see Table 1). The results, shown in Figure 4 below, further support that there is no change in *ain't* usage in apparent time in the majority of contexts.

Each birthyear cohort's frequency of use was compared to the other cohorts using chi-squared tests to evaluate the likelihood of differences between cohort frequencies. Overall rates of *ain't* in each grammatical context align with studies conducted in other northern cities around this time. For example, Weldon (1994), with data from fifty-six speakers collected only a decade later in Cleveland, reports use of *ain't* at 63% ($n = 154$) in copular, present progressive, and periphrastic future environments combined and 71% ($n = 29$) in the perfect environment. The present tense environment, at 65% ($n = 41$) in her data, is the only one that deviates from the UMLC findings.

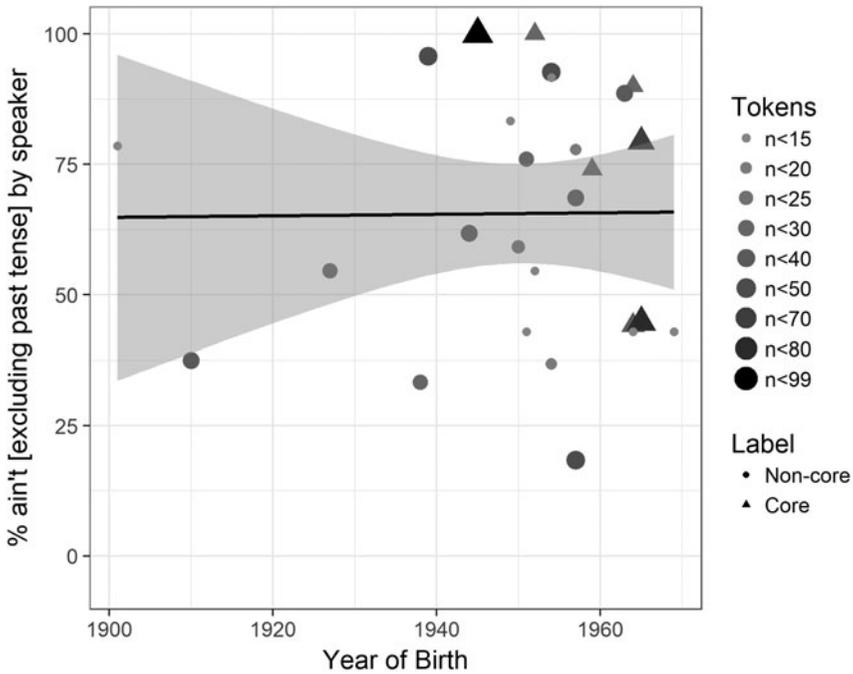


Figure 3. Stability in use of *ain't* across five (combined) grammatical contexts in apparent time for twenty-seven speakers ($p < 1.0$ /Adjusted $R^2 = -0.0399$ in a linear regression).

Though most contexts show the expected pattern of speakers born prior to 1944 using *ain't* less than those born in and after 1945, these differences are not statistically significant. The only exception is the present progressive environment where the oldest cohort uses *ain't* significantly less than both younger cohorts (both at the $p < 0.01$ level).⁷ The same pattern of age-grading is not found between the early/conservative varieties of AAE and contemporary varieties discussed previously (Howe, 2005), which may stem from the fact that, in earlier work, the copular, present progressive, and periphrastic future environments were combined. However, it is unclear why speakers would treat this particular context, which has existed in varieties of English for centuries, differently than others.

Overall, these results demonstrate relative stability over time in the use of *ain't* in these five contexts, in contrast to an increase over time in the use of *ain't* in the past tense. A consequence of this discrepancy in rates of *ain't* between past tense and other contexts is that younger speakers are more likely to have similar rates of use across all contexts while older speakers have high rates in most contexts except the past tense. For example, Mr. Valentine, born in 1901, uses *ain't* for *didn't* only 8% of the time but uses *ain't* in other contexts 79% of the time. In contrast, Paula, who was born in 1964, uses *ain't* for *didn't* (88.2%), just as much as she uses it in other contexts (90%). A speaker like Malika, born in 1951, has a more moderate separation in rates (12.5% in past, 42.9% in other). This differentiation between older and younger speakers' patterns of use across contexts holds over the entire set of data and is shown in Figure 5, where

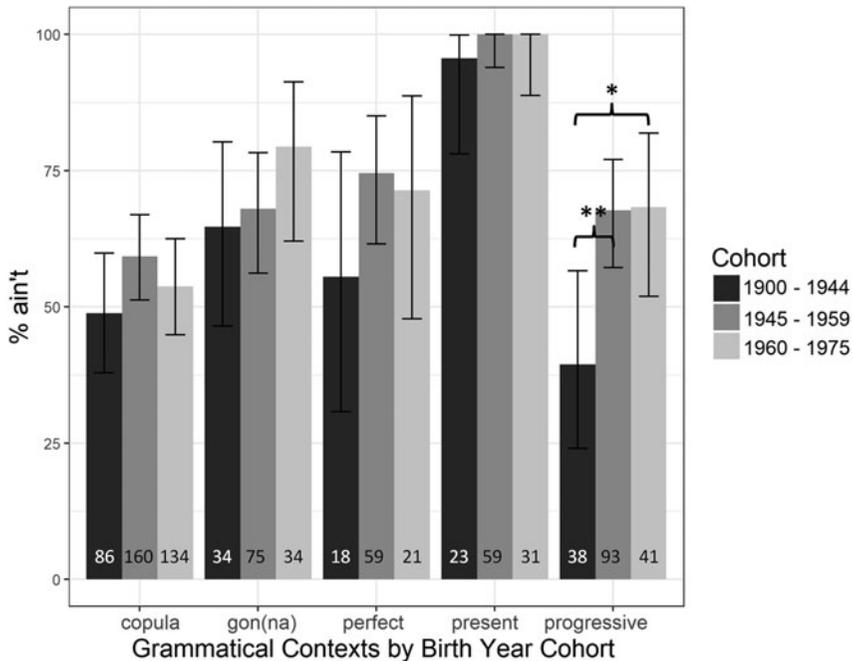


Figure 4. Use of *ain't* across five grammatical contexts in apparent time for all forty-two speakers ($n = 906$) divided into three age cohorts. Token counts in each grammatical context by cohort can be found at the base of each bar.

speakers' use in the past tense over time is compared to their use in all other contexts combined. Figure 5 is essentially Figures 1 and 3 overlaid. Individual speaker's rates of *ain't* in the past tense (black points) are shown for thirty-seven speakers, while rates for other contexts (gray points) are shown for twenty-seven. A total of twenty-five speakers are plotted for both environments. The three speakers discussed above are labeled twice for reference and to highlight their use in both past tense and other contexts.

In sum, change in the past tense context is also signified by the fact that younger speakers have integrated the past tense use of *ain't* into their grammars, using it at similar rates across all contexts, regardless of tense-aspect value.

To compare the social, stylistic, and linguistic constraints on use of *ain't* in these five contexts to the results above for the past tense, data for the five established uses of *ain't* were also fit to a generalized linear model over 906 observations of negative auxiliary variants for all forty-two speakers. Results are shown in Table 5.

Social and stylistic factors

The age results confirm that there is no change over time for these variables. The gender profile, with men using more *ain't*, in addition to the fact that there is no change over time, is expected for a nonstandard variant in a situation of stable variation (Labov, 2001) and also aligns with previous findings for *ain't* (Antieau, 2015;

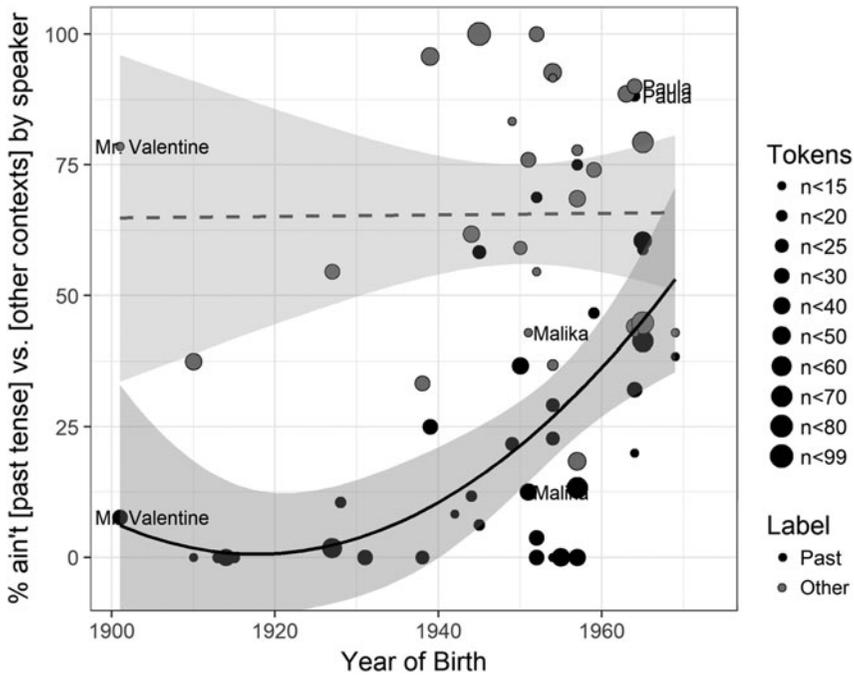


Figure 5. Individual speaker's rates of *ain't* in past contexts (black points) for thirty-seven speakers and other contexts (gray points) for twenty-seven speakers. Twenty-five speakers (including labeled speakers) appear twice to show their rates in both contexts. The p -value and adjusted R^2 values for each regression can be found in Figure 1 and 3 above. Labeled speakers illustrate that differences in rates of use between the two contexts decrease commensurate with speaker age.

Feagin, 1979). Interestingly, Philadelphia speakers disfavor *ain't* compared to southern speakers, which contrasts with results from the past tense, where Philadelphia speakers were found to favor use of *ain't*. This finding suggests that northern speakers may be the ones advancing the increase in use of *ain't* in the past tense.

Finally, the sociostylistic profile of *ain't* as a vernacular variant is confirmed here again with *ain't* favored by speakers without higher education and in contexts where negative concord is also used. With respect to sociostylistics, *ain't* is most likely a unified variant when it comes to social meaning, regardless of grammatical context.

Linguistic factors

Preceding vowel also favors use of *ain't* in these five contexts, again reflecting an abundance of preceding pronouns ending in vowels. However, this time, preceding pause also significantly favors *ain't*. This finding highlights a distinction between *ain't* as used in past tense and other contexts. In established contexts, especially the copular environment, *ain't* is used more frequently utterance-initially in questions (9a), negative inversion constructions (9b), and following a deleted subject pronoun

Table 5. GLM predicting use of *ain't* versus other negative variants across sociostylistic and linguistic conditions in five nonpast tense contexts combined for forty-two speakers (906 total tokens of *ain't* and auxiliary variants)

	Estimate	Standard Error	p-value	n, % <i>ain't</i>
Intercept	−1.53208	0.41493	0.000222***	
scale(YOB)	0.16598	0.18760	0.376295	---
Gender (vs. <i>female</i>) <i>male</i>	1.07480	0.23156	3.46e-06***	388, 57% 518, 73%
Education (vs. <i>HS+</i>) <i>currentHS</i>	1.84584	0.47851	0.000115***	78, 37% 180, 63%
< <i>HS</i>	1.56531	0.36708	2.01e-05***	203, 77%
<i>HS</i>	1.16156	0.34297	0.000707***	445, 67%
Region (vs. <i>South</i>) <i>Philadelphia</i>	−0.72438	0.27850	0.009294 **	126, 64% 780, 66%
NegCon (vs. <i>no</i>) <i>yes</i>	2.69153	0.27137	< 2e-16***	595, 51% 311, 95%
PreSeg (vs. <i>cons.</i>) <i>vowel</i>	0.37751	0.18941	0.046258 *	197, 56% 645, 66%
<i>pause</i>	2.31873	0.64728	0.000341***	64, 95%
YOB*Gender: <i>male</i>	−0.01798	0.21387	0.933003	---

(9c). There are sixty-four utterance-initial negated auxiliaries in established contexts; sixty-one of these contain *ain't*.

- (9) (a) *Ain't* he too short? [Val, f, age 38/1944]
 (b) *Ain't* nothin in them drawers belong to you. [Vanessa, f, age 25/1957]
 (c) *Ain't* even lost one yet! [Ron, m, age 40/1942]

In the past tense data on the other hand, out of only eighteen utterance-initial auxiliary tokens, only one is *ain't*—most are *didn't*—and it is a negative inversion construction followed by another use of *ain't* (10).

- (10) *Ain't* nobody beat me up. *Ain't* nobody gon beat me up.
 [Andrew, m, age 27/1954]

Though utterance-initial auxiliaries are rare in this data in general, the lack of tokens of *ain't* in past tense contexts is striking and perhaps another sign of its emergent use.⁸

Verbal stativity was not included in the model as a whole, but was looked at in present perfect sentences that expressed anterior meaning, where *ain't* varies with *haven't/hasn't*. As before, examples of both stative and dynamic verbs are found following *ain't* in this context (11).

Table 6. Distribution of stative and dynamic verbs following *ain't* in past tense and present perfect environments (Chi-squared test, $p < 0.001$)

	Stative	Dynamic	<i>n</i>
Ain't [Past]	55	143	198
Ain't [Perfect]	45	24	69
Total	100	167	

- (11) (a) Bill *ain't* never **been** away from home. [Betty, f, age 66/1915]
 (b) In Alabama the only way a woman can get alimony is if she married a man and never worked in her life, and if he has a, a job where he can afford that, then she can get it, but [...] if she *ain't* ever **worked** in her life [...] and he *ain't* ever really **work(ed)**, it's, it's kind of hard for that to happen.
 [Vanessa, f, age 25/1957]

Within this context, no preference was found for verbal stativity following either auxiliary, but the overall low token count in this domain, particularly following *haven't/hasn't*, makes it difficult to draw any definitive conclusions one way or the other.

On the other hand, we now have the opportunity to compare the distribution of verbs by stativity following *ain't* in both anterior and past/perfective contexts directly. Recall that DeBose (1994) proposed that dynamic verbs following *ain't* always give rise to past/perfective interpretations and stative verbs are always interpreted as anterior. According to DeBose, if this is true, it provides evidence that *ain't* in AAE is a tense-aspect neutral negator and that the meaning of each sentence is derived, not from the neutral auxiliary, but from the stativity of the following verb. Already, both this paper and Weldon (1994) have found both stative and dynamic verbs following *ain't* in past/perfective and anterior contexts. However, in the Philadelphia data there is a significant correlation between the tense-aspect meaning of *ain't* sentences and verbal stativity, again in partial alignment with DeBose, such that uses of *ain't* in the past tense are significantly more likely to be followed by dynamic verbs, while anterior uses are significantly more likely to be followed by stative verbs (Table 6).

Though this distribution is not categorical, it is consistent with a weaker interpretation of DeBose's hypothesis, the ramifications of which will be taken up in the following section.

Discussion

Comparing uses of *ain't* across grammatical categories for the same speakers offers compelling support for the idea that *ain't* increased in use in the past tense while its use in other contexts remained stable over time. Furthermore, results for region of speaker origin revealed that *ain't* for *didn't* is used more frequently by Philadelphia speakers, lending support to the hypothesis that its use was an innovation that took off in northern cities as opposed to the South. Still, the question remains whether the few southern speakers who do use *ain't* for *didn't* at low

frequencies picked it up as part of their southern AAE grammar, where this variation may have been marginal, or through contact with northern speakers.

With respect to the other sociostylistic factors examined, *ain't* is most likely a unified variant when it comes to social meaning, regardless of grammatical context. The status of *ain't* as a nonstandard or stigmatized variant aligns with results for speaker years of education and collocation with negative concord, and *ain't* appears to be used more frequently in the social and stylistic settings that do not prompt recourse to standardized ways of speaking.

The findings for gender stratification in established contexts of *ain't* also fit its profile as a longstanding vernacular variant, where it is used more frequently by men of all ages and possibly associated with masculinity. Curiously, however, results for the past tense context show no clear pattern with regard to gender. This lack of patterning may result from gender imbalances in the data, where there is nearly twice the number of men as women, which might obscure the advanced use by female speakers typical of an innovation below the level of consciousness.

As for the linguistic mechanism by which *ain't* expanded into contexts of *didn't*, the theory that *didn't* was phonetically reduced to forms that converged with established uses of *ain't* through processes of *d*-deletion cannot be ruled out. However, the environment needed to promote initial *d*-deletion through consonant cluster deletion is not robust enough in natural speech to have been solely responsible for such a change. There was some evidence that reduction might instead be due to frequency effects on pronoun and auxiliary chunks following Bybee and Scheibman (1999). This study finds that *I* is the most frequently occurring subject pronoun before both *ain't* and *didn't* in the Philadelphia data. Thus, a closer examination of the degrees of reduction of *didn't*, *ain't*, and *int* as well as their collocations with following verbs is warranted to further investigate whether and how this process of *d*-deletion might have contributed to the expansion of *ain't*.

There is also some evidence that aligns with *ain't* expanding to contexts of *didn't* through the regular diachronic process where constructions originally expressing resultative meaning shift to anterior and then past/perfective meaning. In other words, the construction *ain't* + V(-ed), which varied with *hasn't/haven't* to express anterior meaning, would have expanded to express past/perfective meaning as well. One area examined in relation to this hypothesis was the lexical category of verbs following *ain't* and other auxiliaries. Previous work noted that dynamic verbs in constructions expressing anterior meaning may be interpreted as past/perfective (Comrie, 1976; Portner, 2003), and thus their use following *ain't* in sentences with anterior meaning was hypothesized to have been a driving force behind expansion to contexts of *didn't*. The finding that dynamic verbs are preferred following *ain't* over *didn't* is therefore important, not only because it supports this hypothesis but also because it indicates that *ain't* and *didn't* are not identical in linguistic behavior, which casts doubt on the phonetic reduction of *didn't* being the original source of *ain't* in the past tense. This is also supported by the fact that in contexts of anterior meaning, no significant preference is shown for either *ain't* or *haven't/hasn't* depending on following verbal stativity. On the other hand, while the lack of preference for stative/dynamic verbs in anterior contexts could result from the anterior use of *ain't* being older, token counts in the anterior domain for the Philadelphia data are low

overall in keeping with reports of the declining use of present perfect constructions in varieties of AAE. Examining more data would be helpful in determining whether there is truly no preference based on lexical stativity in the anterior domain.

That said, there is a significant difference with regard to following verb stativity when comparing uses of *ain't* in anterior contexts against uses of *ain't* in past/perfective contexts such that dynamic verbs are used more frequently in past/perfective contexts while stative verbs are more frequent in anterior contexts. Though neither distribution is categorical, this result falls partially in line with DeBose's (1994) theory on the role of verbal stativity in conveying meaning in *ain't* sentences. However, it is unclear that this result confirms that following main verbs are *contributing* to the tense-aspect interpretation in a way that is fundamentally different from their behavior following auxiliaries that are overtly specified for tense-aspect, like *didn't* or *haven't*. Instead, it could be that this imbalance between stativity and tense-aspect meaning among *ain't* sentences is attributable to the more general tendency for lexical categories like stativity to contribute to sentence meaning (Comrie, 1976; Portner, 2003). As Portner (2003) noted, even for the present perfect with *have*, several independent features may contribute to establishing meaning, including verbal stativity and the use of adverbs.

Finally, the role that ambiguity in reference time for the *ain't* + V(-ed) construction might have played in the expansion of *ain't* + V(-ed) to contexts of *didn't* cannot be understated. *Ain't* is itself inherently ambiguous, maintaining the same form regardless of meaning context. The fact that auxiliaries like *hasn't/haven't* carry overt temporal cues may be a key reason why an anterior-to-past/perfective shift has not occurred to a similar extent in affirmative contexts in AAE. Additionally, overt expressions of time reference occurred much more frequently in anterior contexts of *ain't/haven't/hasn't* compared to past/perfective contexts of *ain't/didn't*. The absence of temporal adverbs for present perfect constructions has been shown to promote their grammaticalization as past/perfectives (Schwenter & Torres Cacoullous, 2008). Furthermore, in the Philadelphia data, there were thirty-two utterances containing *ain't* + V(-ed) that were coded as ambiguous due to lack of explicit time reference anywhere in the discourse context. It might then be that these instances of *ain't* + V(-ed) which occur *without* any temporal cues are particularly prone to ambiguity and reinterpretation, especially when a dynamic verb follows, pushing it toward a past/perfective interpretation.

Summary

In terms of the origin of *ain't* for *didn't*, it is possible that both processes presented may have led to and/or supported the expansion of *ain't* into past/perfective contexts in AAE. It should also be noted that speakers' preference for the simpler syllable structure of *ain't* over other negated auxiliaries (Hazen, 1996) as well as the general tendency to regularize differences within grammatical paradigms may have further played a role in the expansion of *ain't*, though the two mechanisms of expansion focused on in this paper are more useful for explaining why *ain't* extended to the specific context of *didn't* to the exclusion of others. On the other hand, no hypothesis explains why this should happen more rapidly or at all in AAE to the exclusion of

other varieties of English, most notably varieties in which *ain't* is also a staple of the grammar. Some have pointed to AAE-specific facets of the grammar, like the prevalence of initial consonant deletion in auxiliaries (Rickford, 1980) or the use of *ain't* in multiple tense-aspect contexts (DeBose, 1994), drawing comparisons between AAE and other Creole or West African languages from which it may have originated. However, because the synchronic use of *ain't* in AAE is more similar to other varieties of English in its distribution (Walker, 2005; Weldon, 1994), it is unclear whether these languages had an effect on an earlier stage of the grammar that persisted throughout its development. Thus, a question this paper leaves with is what aspects of the grammar of AAE predispose it more than other varieties of English to semantic shift from anterior-to-past/perfective, especially considering the parallel shift for *had* + V(-ed) constructions. The fact that there are two similar semantic changes for two different constructions over the same time period raises questions about whether both changes reflect a broader, underlying change or feature within the grammar of AAE.

Conclusion

This paper has provided a new perspective on an old and stigmatized English language variable, *ain't*, and its use in one variety of African American English spoken in Philadelphia. The findings presented here demonstrate that variants used in multiple variable contexts may have different trajectories in apparent time when only one variable is undergoing change: older speakers in a sample of forty-two speakers from the UMLC corpus have vastly different rates of use depending on whether *ain't* is used in the innovative past/perfective context or one of the other, more established contexts, while younger speakers have similar rates across all grammatical contexts. Relatedly, this data also shows that use of *ain't* increased at the expense of *didn't* during the twentieth century while uses in the more established contexts remained stable. This paper also argued that the expansion of *ain't* into the past tense was most likely the result of the gradual reanalysis of *ain't* in anterior contexts as expressing past/perfective meaning in absence of cues to reference time in discourse, particularly when the following main verb was dynamic rather than stative. I also argued that this development paralleled the rise of *had* + V(-ed) as a past tense construction in varieties of AAE, suggesting that the two changes may be related to a broader, underlying grammatical shift within the language. This shift makes AAE more similar to languages like French and German than to many other varieties of English, at least in contexts of negation.

Returning to the issue of *divergence*, the expansion of *ain't* to past/perfective contexts thus distinguishes AAE from other varieties of English, even those which include *ain't* in other contexts among their defining features. At the same time, this investigation also highlights patterns of sociostylistic variation internal to each speaker's linguistic repertoire: No speaker uses *ain't* in past tense constructions categorically; all speakers also engage in the patterns of auxiliary use shared with mainstream and other varieties of American English, most likely owing to differences in acquisition, contact, and social motivation. Furthermore, speakers are shown to vary in their use of *ain't* depending on their age, level of education, and region of origin. Region of origin in particular shows a contrast between speakers born and raised in Philadelphia and those who migrated there from the South during the Great

Migration. The impact of the Great Migration on African American and American life is clear, from large cultural shifts (Wilkerson, 2010) to shifts in language (Bailey & Maynor, 1987; Farrington, 2019; Labov & Harris, 1986). Examining these resulting shifts in language reveals the grammar of AAE to be dynamic and full of regional variation that encapsulates both historical and contemporary diversity, rather than one that is simply divergent.

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Notes

1. All examples come from the Influence of Urban Minorities on Linguistic Change Corpus of Philadelphia AAE (Labov, 1984). Speakers are identified by pseudonym, followed by an abbreviation for gender, their age at time of interview, and their approximate year of birth.
2. This corpus generated several publications during the 1980s, including Ash and Myhill (1986), Graft, Labov, and Harris (1986), Labov and Harris (1986), and Myhill and Harris (1986). Thirteen of the forty-two speakers studied here are identifiable as having been included in Ash and Myhill’s (1986) analyses.
3. It is true that looking at *ain’t* in variation with all other auxiliary variants ignores the fact that a different number of variants may be allowed in each context due to restrictions on *not* and *n’t*-negation (e.g., *She ain’t ~ She didn’t* versus *She ain’t ~ She isn’t ~ She’s not*).
4. Prior to the investigation described here, a subset of one hundred utterances containing *ain’t* were coded by a fellow linguist and speaker of AAE. A coding confirmation rate of 90% was reached for distinguishing anterior versus past/perfective uses, with ten of those one hundred tokens designated as ambiguous. This early analysis of semantic meaning and ambiguity guided coding practices for the treatment of subsequent data.
5. The category of Speaker is not included as a factor in statistical analysis since there are few overall counts of this syntactic variable. GLM models in R (*lme4* package) (R Core Team, 2019) including Speaker as a random effect did not converge.
6. The relationship between *ain’t* and negative concord is also suspected to have a structural component since negative concord is near categorical in some varieties of AAE (Labov, 1972). Labov (p.c.2018) and Walker (2005) mentioned that the use of negative concord with *ain’t* may be a form of semantic reinforcement as takes place in Jespersen’s Cycle, given that use of *ain’t* can be viewed as a weakening of negated auxiliaries like *haven’t* and *isn’t*.
7. In this case, the overlapping error bars are visually misleading. In all other cases, overlapping error bars accurately portray the three-way lack of significance between birth year cohorts.
8. In Labov’s 1984 survey (reported in Labov 1996), participants were least likely to recognize instances of *ain’t* in past tense contexts when it occurred in questions. For example, they rated the past tense question *Why ain’t he do that?* as grammatical only 10-20% of the time. One hypothesis for the absence of past tense uses of *ain’t* in questions and negative inversion constructions is that they are either too syntactically complex and/or too infrequent for an innovation to appear in at earlier stages of development. Schwenner and Torres Cacoullous (2008) also hypothesize that frequent use within WH questions may be a sign of more advanced grammaticalization as a past/perfective because they are more temporally anchored than yes-no questions.

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