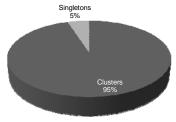
The phonotactics of "zero-s" in AAE-speaking children: Word boundary effects

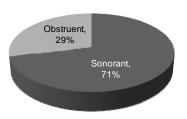
The phonological shape of bound morphemes is dependent on context. For example, the plural, possessive, and 3rd-person singular morphemes (hereafter, "-s") in English surface as [-s], [-z], or [-əz], depending on the final segment of the root to which these morphemes attach. In both first and second language acquisition of English, phonological context also determines whether or not a bound morpheme is *overtly marked* (Eckman, 1987; Goad, White, & Steele, 2003; Hansen, 2004; Hawkins & Liszka, 2003; Marshall & van der Lely, 2007; Song, Sundara, & Demuth, 2009). In fact, even adult speakers of nonmainstream dialects, such as African American English (AAE), show variable marking of bound morphemes that is likewise attributable, in part, to phonological context (Labov, Cohen, Robins, & Lewis, 1968; Poplack & Tagliamonte, 1994), though numerous other linguistic, socioeconomic, as well as gender- and age-related factors also play a role (Pruitt, 2006; Rickford, 1999; Stockman, 1996; Thompson, Craig, & Washington, 2004; Washington & Craig, 2002). It is not yet clear, however, what role phonological context plays in the variable marking of "-s" by *children* who speak AAE.

The goal of the current study was to conduct a detailed examination of the phonological contexts in which "-s" was overtly marked or "zero-marked" by 8 typically-developing AAE-speaking children from Louisiana (aged 4;6 to 5;6), who showed occasional to heavy use of AAE dialect features (Oetting & McDonald, 2001), and who were part of a larger study of morphosyntactic development by AAE-speaking children (Pruitt, 2006; Pruitt & Oetting, 2009). Twenty-minute play-based language samples were collected, each of which consisted of at least 100 intelligible utterances. Each sample was analyzed for overt or "zero-s" forms and their corresponding phonological contexts. We predicted that zero-s would occur more often in the context of abutting consonants (e.g., runs fast [rnz fæst]), which would otherwise result in a complex syllable coda (e.g., [-nz]), and especially abutting obstruents (e.g., dad's truck [dædz trnk]), which would otherwise create a complex sonority profile (Selkirk, 1984).

Of 192 "-s" forms evaluated across the children's speech samples, 28% (55) were zero-marked. Of those zero-s forms, 95% were in the context of abutting consonants. What is especially interesting is that preceding obstruents accounted for only 29% of zero-marked forms, and following obstruents only 33% of such forms. In fact, zero-s occurred most often following vowels and preceding sonorant consonants, which was in stark contrast to our predictions that coda complexity and sonority profile would drive zero-s. Our findings also contrast the zero-s patterns reported for adult AAE speakers. Taken together, zero-s appeared to be driven not by syllable structure of the root to which the morpheme modified; rather, zero-s was most often triggered by the cluster contexts that occurred *across word boundaries*. This suggests that there is a word-boundary effect on zero-s, an observation not previously made for AAE-speaking children or adults. (Refer to Figures 1, 2, and 3 for illustration of our results.)

This pattern, though not previously observed for AAE speakers, is of course well documented for other languages (most notably French), as well as other cluster contexts for other English-speaking adults and (much younger) children (Chevrot, Dugua, & Fayol, 2009; Ladefoged, 1993; Matthei, 1989; Newton & Wells, 1999, 2002). Interestingly, these latter cases for English do not involve elision of morphological content, but rather tautomorphemic segments. That is, the morphemes remain overtly marked (e.g., *hands* [hænz], rather than [hæn] or [hænd]). Our results illustrate that morpho-phonological restrictions in AAE-speaking children's productions may apply at the word level, and indicate that further research on AAE-speaking adults should be conducted to determine if the same pattern obtains.





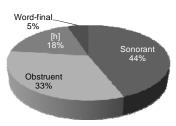


Fig. 1. Contexts of zero-s forms

Fig. 2. Preceding zero-s contexts

Fig. 3. Following zero-s contexts

References

Chevrot, J.-P., Dugua, C., & Fayol, M. (2009). Liaison acquisition, word segmentation and construction in French: A usage-based account. *Journal of Child Language*, *36*, 557-596.

Eckman, F. R. (1987). The reduction of word-final consonant clusters in interlanguage. In A. James & J. Leather (Eds.), *Sound patterns in second language acquisition* (pp. 143-162). Dordrecht, Holland: Foris.

Goad, H., White, L., & Steele, J. (2003). Missing inflection in L2 acquisition: Defective syntax or L1-constrained prosodic representations? *Canadian Journal of Linguistics*, 48, 265-263.

Hansen, J. G. (2004). Developmental sequences in the acquisition of L2 syllable codas: A preliminary study. Studies in Second Language Acquisition, 26, 85-124.

Hawkins, R., & Liszka, S. (2003). Locating the source of defective past tense marking in advanced L2 English speakers. In R. van Hout, A. Hulk, F. Kuiken & R. Towell (Eds.), *The interface between syntax and lexicon in second language acquisition* (pp. 21-44). Amsterdam: John Benjamins.

Labov, W., Cohen, P., Robins, C., & Lewis, J. (1968). A study of the non-standard English of Negro and Puerto Rican speakers in New York City. Final Report, Cooperative Research Project no. 3288, Office of Education, Washington, DC, vols. 1 and 2.

Ladefoged, P. (1993). A course in phonetics (3rd ed.). Fort Worth, TX: Harcourt Brace Jovanovich.

Marshall, C. R., & van der Lely, H. K. J. (2007). The impact of phonological complexity on past tense inflection in children with Grammatical-SLI. *International Journal of Speech-Language Pathology*, *9*, 191-203.

Matthei, E. H. (1989). Crossing boundaries: More evidence for phonological constraints on early multi-word utterances. *Journal of Child Language*, 16, 41-54.

Newton, C., & Wells, B. (1999). The development of between-word processes in the connected speech of children aged between 3 and 7 years. In B. Maassen & P. Groenen (Eds.), *Pathologies of speech and language: Advances in clinical phonetics and linguistics* (pp. 67-75). London, UK: Whurr.

Newton, C., & Wells, B. (2002). Between-word junctures in early multi-word speech. *Journal of Child Language*, 29, 275-299.

Oetting, J. B., & McDonald, J. L. (2001). Nonmainstream dialect use and specific language impairment. *Journal of Speech, Language, and Hearing Research*, 44, 207-223.

Poplack, S., & Tagliamonte, S. (1994). -s or nothing: Marking the plural in the African-American diaspora. *American Speech*, 69, 227-259.

Pruitt, S. L. (2006). *Grammatical morphology of children reared in poverty: Implications for specific language impairment*. Unpublished doctoral dissertation, Louisiana State University, Baton Rouge.

Pruitt, S. L., & Oetting, J. B. (2009). Past tense marking by African American English-speaking children reared in poverty. *Journal of Speech, Language, and Hearing Research*, 52, 2-15.

Rickford, J. (1999). *African American English: Features, evolution, educational implications*. Malden, MA: Blackwell. Selkirk, E. (1984). On the major class features and syllable theory. In M. Aronoff & R. T. Oehrle (Eds.), *Language sound structure: Studies in phonology presented to Morris Halle by his teacher and students* (pp. 107-136). Cambridge, MA: MIT Press.

Song, J. Y., Sundara, M., & Demuth, K. (2009). Phonological constraints on children's production of English third person singular -s. *Journal of Speech, Language, and Hearing Research*, 52, 623-642.

Stockman, I. J. (1996). Phonological development and disorders in African American children. In A. G. Kamhi, K. E. Pollock & J. L. Harris (Eds.), *Communication development and disorders in African America children: Research, assessment, and intervention* (pp. 117-153). Baltimore: Paul H. Brookes.

Thompson, C. A., Craig, H. K., & Washington, J. A. (2004). Variable production of African American English across oracy and literary contexts. *Language, Speech, and Hearing Services in Schools*, *35*, 269-282.

Washington, J. A., & Craig, H. K. (2002). Morphosyntactic forms of African American English used by young children and their caregivers. *Applied Psycholinguistics*, 23, 209-231.