It has often been claimed that African-American English differs from European-American English in its prosody.

Where are the differences?

• phonetics: $F_0$ scaling, register
• phonology: tonal features, phrasal structure
• pragmatics, affective prosody, …
More generally…

What are the parameters by which dialects may vary in their intonational systems?

How does intonation variation arise historically?

Previous Studies

• Loman (1975) data collected in 1960s in Washington, DC
• Tarone (1973) Seattle, Washington
• Hudson & Holbrook (1981, 1982) Florida college students
• Thomas (1999) Silsbee, Texas
• Wolfram & Thomas (2002) Hyde County, North Carolina
• Jun & Foreman (1996) Los Angeles, California
• Green (2002) Southwest Louisiana
Summary of prior findings

|                        | AAE                                                                 | EAE                                                                 
|------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------
| **Declaratives**       | • More stresses                                                     | • Fewer stresses                                                    |
|                        | • More Pitch Accents (PAs)                                           | • Fewer PAs                                                         |
|                        | • Postnuclear PAs                                                   | • No postnucl.PAs                                                   |
| **Overall F₀**         | • Wider pitch range                                                 | • Greater F₀ falls                                                  |
|                        | • Use of falsetto                                                   |                                                                      |
| **Yes/No questions**   | • Falling final contours                                           | • Low PAs                                                          |
|                        | • Level final contours                                              |                                                                      |
|                        | • Various Pas                                                       |                                                                      |

This study compares the phonetics and phonology of intonation in AAE and EAE, looking for differences in

1. *pitch range and declination*
2. *the inventory of pitch accents and phrasal tones*
3. *factors that condition phrasal juncture*
North Carolina Corpus

- Speakers were from three counties in North Carolina that were North Carolina Language and Life Project communities
- The three counties (Robeson, Warren, and Hyde) were chosen because there were adequate numbers of interviews with both African Americans and European Americans
- Conversational interviews, usually in speakers’ homes
- Interviews took place 1994-1999

North Carolina corpus subsets

- $F_0$ declination study (NCSU):
  - 6 young, female AAE speakers
  - 6 young, female EAE speakers

- Intonation labeling pilot study (UIUC):
  - 7 AAE speakers (4 female, 3 male)
  - 7 EAE speakers (5 female, 2 male)
Differentiation in declination

Many Southern White females show relatively steep declination patterns, usually by starting out especially high.

“I don’t want to be in too big of a city.”

African American females typically do not show this steep declination pattern.

“It’s hard being a single parent, but it’s it’s… I’m hanging in there.”
Effect of duration of intonational phrase on declination:

Intonation Labeling Study

ToBI-style labeling of intonation patterns in AAE and EAE speakers
Many elements of the intonational phonology are common to both varieties:

Pitch accents that assign tone features to mark phrasal stress

\[ H^* \quad H^* \]

ex: *Samantha went to the movies*

early peak:
\[ H^*, \ !H^* \]

steep rise with peak on accented syllable:
\[ L+H^*, \ L+!H^* \]

steep rise with peak on following syllable:
\[ L^*+H, \ L^*+!H \]

Elements common to both varieties:

Phrase tones--

intermediate phrase (ip): minor disjuncture

small fall: \( L^- \)

mid plateau: \( H^- \) or \( !H^- \)

intonational phrase (IP): major disjuncture

fall to bottom: \( L-L\% \)

fall-rise: \( L-H\% \)

mid plateau: \( H-L\% \),

rise to high \( H-H\% \)
Early Peak

H*

“We’re going to Key West over Spring Break.”

EAE

“I only see very few.”

AAE

Rising pitch accents (L+H*)

“There’s a lot ‘o um factories around there.”

EAE

“eleven months and twelve days”

AAE
“So lots of my friends, um…”

EAE

“So after he died, I come work for (his) son…”

AAE

Differentiation in prosodic phrasing

- EAE speakers realize minor (ip) and major (IP) phrasal juncture
  - Pitch reset at beginning of each new phrase
  - Lengthening of final rhyme in each phrase
  - Disjuncture cues: less coarticulation, creaky voice, pause

- AAE have an additional level of phrasing below the ip: the Accentual Phrase (level 2)
  - AP contains only one Pitch Accent
  - $F_0$ falls to very low at end of AP, then resets
  - Downstepping across peaks in successive APs
  - Little or no lengthening or perceived disjuncture at AP boundary
The occurrence of short Accentual Phrases in AAE results in speech with a “staccato” or pulsing quality.

– short, choppy $F_0$ contours
– “more” prosody: more pitch accents, more phrasal contours, more phrase-initial strengthening
– frequent reset, which reduces overall declination in the larger phrasal domain

_N.B., Accentual Phrases are not ubiquitous in AAE speech, but they do appear to be characteristic._

-AAE: short and choppy phrasal contours, with little or no disjuncture-

“Oh yeah, _Even though I wasn’t uh_ always worked on the farm, I had a public job for 25 years.”
AAE: short and choppy phrasal contours, with little or no disjuncture

“*She has a habit o’ comin’ in here widout askin’ and gettin’ whatever she wants*”

“*And till they changed it and added on to Marion Bart, which is…”*
EAE: long, smooth $F_0$ trajectories. Phrasal tones occur with disjuncture “there’s a lot o’ um factories around there.”

What is the relation between the AAE Accentual Phrase contour, and the intonation patterns of EAE?

A possible analysis:

- The Accentual Phrase takes phrase-level intonation contour of EAE and maps it onto a lower-level constituent, perhaps the metrical foot.

- Only the intonation contour is mapped, and not the disjuncture cues that are typical of phrasal junctures (IP and IP) in EAE: lengthening, pause, lesser coarticulation.
A similar account has been given for the development of intonation systems in creoles which have a substrate in African tone languages.

– Palenquero (Hualde & Schwegler 2005)
– Anglo-West African creoles (Devonish 2002)

Sentence level intonation is re-interpreted as a word level prosody.

Stressed syllables can be marked with a LH (rising) pitch accent.

Peaks are realized on the post-tonic syllable, and successive peaks are downstepped.

*Lexical stress is not always manifested as a pitch rise. Other PAs can be chosen to convey different pragmatic meanings, e.g., L* in yes/no questions.*

Fig. 1. Example of neutral declarative in Spanish:

“Le dieron el número de vuelo”

‘they gave him the number of the flight’

Peninsular Spanish intonation (from Hualde & Schwegler, 2005)
Palenquero:
The Spanish rising contour on stressed syllables is realized here with a flat, high contour (H), in all sentence types and all pragmatic contexts.

*A lexically determined contour, the same in questions, statements, etc.*

Palenquero intonation
(from Hualde & Schwegler, 2005)

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**Summary**

- Evidence of prosodic differentiation of EAE and AAE for these North Carolina speakers.
- The AAE intonation system includes an extra level of prosodic phrasing, the Accentual Phrase.
- AAE Accentual Phrase resembles the phrasal $F_0$ contour of EAE, mapped onto a lower level prosodic domain.
Disclaimer--

- We’re not presupposing a substrate in an African tone language or a creole analysis for AAE.
- This issue warrants the investigation of other varieties for precursors of the AAE Accentual Phrase:
  - The British Isles
  - Caribbean and West African creoles
  - West African languages

References