Today

• Creole language phonology: vowel phenomena
  • Issues:
    ◊ Universals vs. parent language retentions
    ◊ Role of sociolinguistic factors in distribution of vowel features
  • Reflexes or Universals?
    ◦ in segmental inventories
    ◦ in phonotactic constraints
    ◦ Phonological processes
      ◊ Deletion
      ◊ Insertion
**Issues: Universals vs. parent language retentions**

*not settings*

**Types of Universals:**
1. Bickertonian -- language structures* shared by the human species
2. L2 -- cognitive and linguistic universals employed to support second language acquisition (most visible in ordering effects)

**Sociolinguistic Issues:**
1. Variation in creole continua--substrate and superstrate features occur variably within the population; this variation is patterned (region; social class; gender; age)
2. Language change proceeds in an orderly fashion through the speech community--creoles change, too!
   -- distinguishing an early creole feature from an innovation
3. Methodological challenges: Questions of accessing the creole

**Phonetics/Phonology Issues:**
1. Instrumental limitations (till 1970s)
2. lack of dialectal information for 16th 17th c. varieties of superstrate and substrate languages
Issues: Universals vs. parent language retentions

Retentions surface most clearly in reflexes of parent language forms

In what sense can creole phonological forms be considered reflexes?

1. **Conventional historical sense**: Modern English vowels are reflexes of Middle English vowels
   
e.g., ModE /e:/ is a reflex of ME /a:/ e.g. mate
   
   -- can’t say this for creole systems: ME /ay/ ≠ JC /ay/

2. **Restricted historical sense**:
   
   -- vowels in particular words can in some sense be considered reflexes
   
   -- correspondences don’t always hold
   
e.g., JC (kya) predicted to be same lexical class as ME /ar/
   
e.g., EME /e/  Sranan /ay/  paj  pay
   
   Sranan /ɛ/  ten  time

Risks in construing relatedness to one language (a “target of creolization”)

1. miss relationships to other adstrates
2. mask processes of natural language change in the creole
Reflexes or universals?
Where to look

A. Systematic investigation required in:
   1. segmental inventory (e.g., vowel and consonant phonemes)
   2. phonotactic constraints (e.g., allowable syllable shapes)
   3. suprasegmental features (e.g., tone, stress)
Reflexes or universals?
Segment Inventory Characteristics: Pidgin vs. Creole

Generalizations:
A. Pidgin phonology will be derivative.
B. Creole phonology will show:
   - Selection from pidgin inventory
   - Innovative forms
   - Universals
     - 5 vowel system (oral and nasal)
     - Voiced and voiceless stops (few fricatives)
   - Simplification?
Case study: Jamaican Creole
Substrate language vowel inventories

*note: we have only information on these languages from early 20th c.

**Ewe**

- i, ĩ
- e, ē
- o
- a, ā

- ATR contrastive (tense/lax)
- contrastive nasality (4 of 7 contrasts)
- lexical tone (H L)
- total of 14

**Twi**

- i, ĩ
- e, ē
- o, ō
- a, ā

- ATR contrastive (tense/lax)
- contrastive nasality (all 5 contrasts) in +ATR subsystem
- single vowels contrast with doubled ones (Carter 1993)
- lexical tone (H M L)
- total of 15+
Case study: Jamaican Creole
Superstrate language vowel inventories

*note: we have information on English dating back to 18th c., but less clarity than we might like as to relevant dialects

**Scots**

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+ aj, ɔɪ, aw

**English**

• 10 (+3) quality distinctions were phonemic in Scots
• downgliding mid diphthongs /ie/, /uo/
• quantity was predictable
• phonetic nasalization

**Irish**

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<thead>
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<th>i, i:</th>
<th>u, u:</th>
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</table>

+ aj, ɔɪ, aw

**English**

• 7 quality distinctions in IrE
• contrastive length in Irish English was becoming phonetic (Lass, 1979)
Case study: Jamaican Creole
Segmental Inventories

Synchronic variation shows substratal as well as superstratal influences

- **Basilect** retains contrastive length (retention from both Twi and Scots)
- Downgliding diphthongs appear to be a reflex of same in Scots
- Quality distinction in acrolect suggests superstrate influence, basilect retains substrate length
- Nasalization—unstudied (but, contrasts some minimal pairs, note: [kya] *can vs* [kyā] *can’t*)
- Palatalization before /a/ (KYA)

Schematic diagrams of the shape and distribution of idealized phoneme categories in Jamaican vowel space. Left: diagram of a system showing little spectral overlap. Right: diagram of a typical system in which nuclei of diphthongs in the mid front and back vowels overlap with high vowel subsystems.
Case study: Comparative Afro-Caribbean

Summary

• Alleyne 1980: long vowels in ME “were interpreted as nuclei of neutral length”
  ▪ no Caribbean creole had a length contrast in its pidgin stage
  ▪ Carter (1993) argues that presence of diphthongs in early JC provides compelling evidence that JC did inherit distinctions of quality
  ▪ we must conclude that variability in the super and substrates predicts JC varieties are as likely to maintain distinctions of quality as of quantity
  ▪ Alleyne reconstructed proto-Afro Caribbean to have the following system. This 7-vowel system is also common in Niger-Congo (Yoruba, Ewe, Bambara, Susu)
Generalizations: Commonalities among Creole Vowel Inventories

1. Show phonological features in line with typological tendencies for all human languages:
   (a) Maximal dispersion
   (b) Symmetricality (front-back; high-low)
   (c) Most common: 5 vowels
   (d) Oral vowels basic
      -- length contrast in oral Vs
      -- oral~nasal
      -- unround~round
Vowel subsystems

Central vowels (mid)

1. Atlantic Creoles: Schwa present in Romance, Germanic, but not Niger-Congo.
   a. /ə/ Regularly replaced by /a/
   b. or harmony:
      e.g., Sao Tomense CP [kustumu] ‘custom’ < P [kuʃtumə] ‘costume’
Vowel subsystems

Central vowels (low)

1. Atlantic Creoles: Widespread replacement and underdifferentiation resulted in the expansion of the boundaries of the /a/ class.
   a. Subsumed the /a/ class of the lexifier...
   b. ..Plus other vowels as well.
      e.g. Gulf of Guinea—P /a/ /e/ > GG /a/
           P /əfəu/ > GG /əfəu/
           P /kəde/ > GG /kada/

2. Negerhollands: apparently had both D /a/ and /ɑ/, but distinction may not have remained stable

3. French /a/~/ɑ/ was lost in F lexifier creoles, e.g. HC
   F /ɑʒ/ > HC /ɑʒ/
   F /ʃə/ > HC /ʃə/

4. /a:ɾ/ always ➔ /a/

5. ME /æ/ ➔ JC /a/ , but before velars, we find
   a. basilect: [aː]~[a] in [kjat] cat vs. [kat] cot
   b. acrolect: [a]~[ɔ] in [kat] cat vs. [kɔt] cot
Phonotactic constraints

\[ \text{CVCV} \quad \text{insert segment} \]

\[ \text{CVCV} \quad \text{delete segment} \]
Phonotactic constraints

CVCV preferred syllable shape
All important phonotactic rules converge on this syllable shape

- \( \text{CVCV} \) -- aphasis: common
- \( \text{CVC(C)} \) -- apocope: early creoles
- \( \text{CVCV} \) -- epenthes: common
- \( \text{CVCV} \) -- metathesis: common...

metathesis followed by epenthes:
e.g., Consonant clusters are widely permitted in word-initial position in late creoles, though not in early creoles (as a result of vowel elision)

Explanations: sonority?
e.g., Virgin Islands CE \textit{pistarlce} “spectacle” -- metathesis analysis valid?
Deletion Processes

- **Aphesis** – omission of 1 or more phonemes word-initially
  - e.g. Sranan **tan** “stand”, **tomp** “tomp”

- **Syncope** – omission of a phoneme word-medially
  - e.g., Príncipe **hani** < P “grande”

- **Apocope** – omission of a phoneme word-finally
  - early creoles avoid a final C or CC
  - decreolizing varieties permit single final C and avoid CC
  - particularly where C1,C2 share specification of voicing
    - HC **wonn** “ronde”
Phonotactic Constraints

Deletion Processes

- **Vowel elision** – omission of sounds at syllable edges or between words in connected speech
  - Widespread in non-creole languages
  - E.g., Papiamento *m’a bai* < Papiamento “mi a (+ANT) bai”

- **Sandhi** – phonological modification of grammatical forms which have been juxtaposed
  - E.g., English *there is* --> *there’s*
  - E.g., French *ce est* --> *c’est*
  - In Sranan, this sometimes increases the complexity of syllable structure:
    - *fɔgiti* --> *fgiti*
Phonotactic constraints

Insertion Processes

- **Prothesis** — Word-initial insertion of a phoneme.
  
  E.g., S. *estado* < L *status*

- **Epenthesis** — Word medial insertion of a phoneme. Typically, this inserted element is a vowel
  
  - e.g., Príncipe: *alima* “soul” > P. *alma*
  
  - Sometimes involves **Vowel harmony**:
    
    (def.) articulation of one unit is influenced by another element in the same word or phrase. All vowels in a word may share certain features, such as rounding, height, tongue retraction, etc.
Phonotactic constraints

Insertion Processes

- **Paragoge**—Word-final insertion of a phoneme
  - e.g., Príncipe *dósu* < P. *dois* “two”
  - Saramaccan *lafu* “laugh”, *dagu* “dog”

Reordering Processes

- **Metathesis**—reordering of 2 sounds
  - (?) spectacle → pistarcle
  - criar → kiriya
  - film → fliim
Exceptions to the CV phonotactic constraint:

Singular definite articles in present-day Haitian Creole:

<table>
<thead>
<tr>
<th>Singular definite article</th>
<th>English translation</th>
<th>Alternate form</th>
<th>English translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>tab la</td>
<td>the table</td>
<td>mont lan</td>
<td>the watch</td>
</tr>
<tr>
<td>kay la</td>
<td>the house</td>
<td>vant lan</td>
<td>the belly</td>
</tr>
<tr>
<td>dam nan</td>
<td>the lady</td>
<td>radyo a</td>
<td>the radio</td>
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<tr>
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<td>biwo a</td>
<td>the desk</td>
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<tr>
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• Try to identify the variants and their rules:
• How many forms of the singular definite article do you find?
• What conditions the occurrence of these forms?
Exceptions to the CV phonotactic constraint:

Singular definite articles in present-day Haitian Creole:

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• Try to identify the variants and their rules:
• How many forms of the singular definite article do you find? 5
• What conditions the occurrence of these forms? identity of preceding phone
Exceptions to the CV phonotactic constraint:

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1. UR is /la/
2. rules:  
   (a) /la/ $\rightarrow$ [a] / CV#_ (deletion rule)  
   (b) $\emptyset$ $\rightarrow$ [n] / CVN(C)#_ (nasal coda insertion rule)  
3. exceptions? other accounts?
Co-articulated stops

Definition: one phoneme created with two places of articulation; two supraglottal places of articulation, released in sequence.

e.g., Príncipe /kp, gb/ (Portuguese, Kwa)
- Monophonemic
- Present in a number of Niger-Congo families (Mande, Kru, Kwa),
- But no European ones.
  Saramaccan (also has tone)
  Príncipe (also has tone) [note: Sao Tomense does not]
  Most of the West African Area Creoles (see Parkvall summary)

- Sranan /kw, gw/ also treated as secondary articulations
Pre-nasalized stops

Definition: phonetic sequences of nasal plus plosive (homorganic) that behave phonologically like single consonant.

E.g., /mb/, /nd/, /ŋk/
- many W Afr, but not present in Mande or Kru
- dialects of Japanese, Fijian, Melanesian
- varieties of Tok Pisin: /ɓɪlɔŋ/ ➔ /mɓɪlɔŋ/
- often difficult to distinguish from biphonemic sequences
  - GG nda ‘to walk’ > P andar
  - GG Nda ‘fowl’ > P galinha
- Saramaccan, Haitian, Jamaican, Sranan, Negerhollands (?)
- language has predominant CV structure
Palatal stops

Palatalization or Palatal stop?
E.g., /c/, /ɟ/, /tʃ/, /dʒ/  
- positive evidence in phonetic contexts (e.g., /a/)  
- Gullah [ˈjaɪl] ‘child’  
- JC [ˈnam] ‘eat’ > Twi nam  
- *Louisiana Creole French, Haitian, Gulf of Guinea*  
- also see expected phonetic effects due to a following high vowel  
- e.g. Haitian [tʃɛbɛ] ‘hold on’ > F tiens bien  
- But, e.g., Saramaccan [ˈyuːbi] ‘hide’ vs. [ˈkubi] ‘kind of fish’
Summary: Reconstructed English-related Atlantic Creole (Alleyne, 1980)

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<th>Labial</th>
<th>Labio- dental</th>
<th>Alveolar</th>
<th>Palato- alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Labio- velar</th>
<th>Glottal</th>
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Suprasegmentals
American English
Suprasegmentals

Jamaican Creole

Mary will clean di black board.

Mary will clean di black board?