Variation Analysis

• Picking a variable
• What are the **variants**?
• How to quantify?
  – **In which contexts** can they occur?
  – Are there cases that are nearly **categorical**?
Variation Analysis

The Principle of Accountability:

All occurrences of a given variant are noted, and where it has been possible to define the variable as a closed set of variants, all non-occurrences of the variant noted in relevant circumstances.

In a given stretch of time, or in a given number of occurrences, how many times did X occur? How many times could X have occurred?
Example: Plural formation (Rickford 1985)

- Noun##dem
- Noun#0
- Noun#s

1. In a given amount of time/number of tokens, count every instance where *any* plural formation occurs (or could occur).

2. In this same amount of time/number of tokens, count how many times ##dem occurred; how many times #0 occurred; how many times #s occurred

3. Calculate frequency of each variant with respect to the total number of times the variant could have occurred (i.e. every instance of plural formation).

4. Report raw numbers (counts), as well as a *proportion* calculated from step 3 (e.g. ##dem made up 9% of all plural markings; #0 made up 51%; #s made up 40%)
What is an ethnolect?

“Ethnolects are varieties of a language that mark speakers as members of ethnic groups who originally used another language or distinctive variety.” (Clyne 2008)
Where do the features come from?

Heritage language *substrate* influence

“Borrowing” from other ethnic groups

“Divergence” from other ethnic groups

Why isn’t “convergence” noted here?
“It may seem reasonable to assume that the characteristic features of ethnolects are byproducts of years of comingling between languages in contact, the results of many phonetic substitutes and near-misses by the original language learners and their children.” (Thomas & Van Hofwegen p. 2)

Substitution

“near-misses”
Naming an ethnolect

Chicano English
vs.
Latino English
vs
Hispanic English

Mexican American English
Puerto Rican American English
Dominican American English
Cuban American English
Chicano English

“Chicano English is an ethnic dialect that children acquire as they acquire English in the barrio or other ethnic social setting during their language acquisition period. Chicano English is to be distinguished from the English of second-language learners. Thus defined, Chicano English is spoken only by native English speakers.”

(Santa Ana, 1993, p. 15)
Features of Chicano English  
(Fought 2003)

Phonological
• less frequent vowel reduction
• monophthongal vowels
• tense realization of /ɪ/ (esp. –ing)
• COT-CAUGHT merger (fronter COT)
• th-stopping
• consonant cluster reduction in more environments
• glottalization (even ejective) of final voiceless stops
Features of Chicano English (Thomas and Carter 200?)

Phonological relative syllable-timing

Figure 3. Bar graphs showing PVI scores for each demographic group. The error bars show 95% confidence intervals.
Features of Chicano English
(Fought 2003)

Syntactic
• 3rd-person singular –s absence
• regularization of past tense forms
• was-leveling
• negative concord
• habitual be
• subject-auxiliary inversion in embedded sentences
Features of Chicano English
Callahan (2008)

Syntactic
past-tense
unmarking

(25) “...I used to make a lot of tortilla I used to make a lot of them I used to do a lot of things like that when I was at home because my husband he always like to bring people to eat and then when we went to the other state he took kids from here and when they were in summer they were not working they don’t have anything to do he took them over there and they work over there and I had to feed ‘em all I had to make a lot of tortillas frijoles and everything whatever they eat” (ET/ptx001)
Substrate

“However, sociolinguists who study ethnolects note that heritage language phonological features are but one contributor to the systematic patterns of an ethnic variety…Especially as it pertains to sociolinguistic variation, there can at times be little or no clear connection between a speaker’s heritage language and the linguistic features he or she uses.”
(Thomas & Van Hofwegen p. 2)
Summary

• What is the research question?
• Where was the research conducted?
• Who were the speakers?
• How was data elicited?
• Why were these methods chosen?
• Which variable (or variables) is investigated?
• What were the findings?
“North Town,” Texas
Population Characteristics, 2000

Town
- Hispanic: 84.2%
- White Anglo: 14.8%
- Non-Hisp. Afr. Am.: .7%
- Other: .3%

County
- Hispanic: 73.8%
- White Anglo: 20.6%
- Non-Hisp. Afr. Am.: 4.8%
- Other: .8%
The Study Community

- County created in 1858 and established in 1871
- Town established in 1881 with the building of the Missouri Pacific Railway
- 54 miles (87 km) southwest of San Antonio, Texas
North Town History

- **Before 1900**
  - Town founded in 1882 in southern Texas
  - Original Anglo settlers were mostly “Hill Southerners” (roots in Tennessee, Arkansas)
  - Considerable immigration from Mexico, largely to ranches
  - System of Anglo *patron* / Mexicano workers developed

- **1900s-1920s**
  - Mixed economy of small farmers & ranchers
  - Anglos and Mexicanos segregated – in all aspects of life

- **1920s-1950s**
  - Economic transformation due to ecological, marketing, technological, and population changes
  - Movement of people off of ranches & farms and into town
  - Migrant workers (South to North)
  - Separation of town by railroad tracks
  - Anglo side/Mexican side

← ranch land outside town
North Town History, cont.

• 1950s-1960s
  – Schools segregated up until 7th grade
    • Mexican side – Anglo side
  – Middle class Mex. families began to move across the tracks
  – Mexicans became more vocal and active civically
  – Public works began to “fix” Mexican side of town
    • Paved streets, drainage, street lights, etc.

• 1970s
  – Farming (peanuts, cotton, sorghum, etc.) & Ranching, Oil, Hunting
  – Schools integrated 1969-1971
  – Effort by Mexican Americans to take over town government failed amid great acrimony

• 1980s – present
  – Mexican Americans now hold nearly all political offices
  – economy is fairly sluggish, so the community is not currently attracting many immigrants from Mexico
  – currently a mecca for non-local deer hunters, who have bought up much of the rural thorn scrubland
  – very recently, there’s been a fracking boom

↔️ street view on the “Mexican” side of town
The Local Environment

The railroad tracks that divide the two sides of town

Typical local vegetation, chaparro prieto—note the big thorns
The Study

• 42 speakers, all of whom grew up in North Town and/or surrounding North County (some additional interviews with non-natives are excluded)

• 31 are Mexican American—oldest born 1918, youngest 1997—covering four generations

• 11 Anglos, mostly old, for comparison and to establish what the contact dialect was

• Mexican Americans were interviewed in both English and Spanish when possible

• Interviews were conversational, which allows the greatest variety of linguistic variables to be collected
Examples of Light and Dark [l]

Utterance is “for little.” $F_2$ for [l] is just under 2000 Hz.

Utterance is “a little.” $F_2$ for [l] is about 1000 Hz. Track above 2000 Hz is a false formant.
Light and Dark [l]
Identifying /tʃ/ and /ʃ/

Figure 3.3 Spectrograms of *teachers* with /tʃ/ produced as [tʃ] (left) and as [ʃ] (right). 0.2 seconds of silence is inserted between the two utterances. Note the presence of the stop gap and the burst for [tʃ] and their absence for [ʃ].
/tʃ/ and /ʃ/

Figure 3.4 Percentages of realization of /tʃ/ as a fricative.
Identifying stopped interdental fricatives

Figure 3.7 Spectrogram showing /ð/ in the word *that* realized as a fricative (left) and as a stop (right). Note the absence of a stop burst on the left and its presence on the right.
Stopped interdental fricatives (/ð/)
Identifying assimilated interdental fricatives

Figure 3.12 Spectrogram of assimilated [ð] (left) and unassimilated [ð] (right) illustrating a discontinuity with the preceding segment for the unassimilated token.
Assimilated interdental fricatives (/ð/)
Identifying /r/-lessness
Figure 3.15 Rates of r-lessness in syllable codas, collapsing position after a front vowel and position after a back vowel.
T+VH Findings Summary

All features show significant ethnic differentiation

Substrate features that recede with time:
• /tʃ/, /dʒ/, and /ʃ/

Substrate features that persist through time:
• /l/
• /ð/-stopping

Non-substrate features
• /ð/ assimilation
• /r/-lessness

(/hw/ and /dj/ as well)
Are ethnolects even necessary?

What does an ethnolectal approach gain us?
Eckert 2008

Ethnicity in stylistic practice
Summary

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• Which variable (or variables) is investigated?
• What were the findings?
Eckert 2008

The variable: The nasal pattern
Eckert 2008

The findings:
## Eckert 2008

### The findings:

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The findings:

Figure 7
Stylistic variation for five kids
“Can ‘Y’all’ mean just one person?”

By Arika Okrent