(R) we there yet? The state of coda /r/ vocalization on the Lower East Side of Manhattan

KARA BECKER

KATHLEEN ASTON

REED COLLEGE

NEW WAYS OF ANALYZING VARIATION (NWAV) 41

OCTOBER 26, 2012

The restoration of coda /r/ in North America

The South: Rapid advancement, change complete for young white speakers (Feagin 1987; Labov, Ash and Boberg 2006: 47)

The North: No advancement (New England) or slow advancement (NYC)

NYCE /r/ is:

- Slow
  - "Under pressure from of the new r-pronouncing norm, New York City speech is changing slowly" (Labov 1994)
  - "[r-1] is not steamrolling its way into LMC speech as Labov predicted" (Fowler 1986)
- Formal
  - /r/ is "Primarily a feature of formal speech: a superposed dialect." (Labov, Ash & Boberg 2006)
  - "The effect of the new prestige norm was not to modify the vernacular of most New Yorkers, but rather to produce variable behavior in formal situations." (Labov, 1994: 89-90)

/r/'s advancement is slow

- Rapid anonymous data (Labov 1966; Fowler 1986; MacDonald 1984; Mather 2011).

The percentage of speaker who produce all [r-1], by department store

|	1962	1986	Increase 1962-86	% yearly growth (24 years)	2009	Increase 1962-2009	% yearly growth (47 years)
Saks	30	39	30%	1.25%	54	80%	1.7%
Macy's	20	24	20%	.83%	43	115%	2.45%
Klein's/May's	4	7	75%	3.13%	5	25%	.53%
Total	21	28	33%	1.39%	48	128%	2.7%

Carmella, department store study participant?

- Community Study (Labov 1966, 1972; Becker 2009)

|	1962: Lower middle class, aged 40+, careful speech	2006: Lower middle class, middle-aged, interview speech	Percent Increase, 1962-2006	Percent Increase per year (44 years)
Mean [r-1]	21	55	162%	3.7%

/r/ is formal
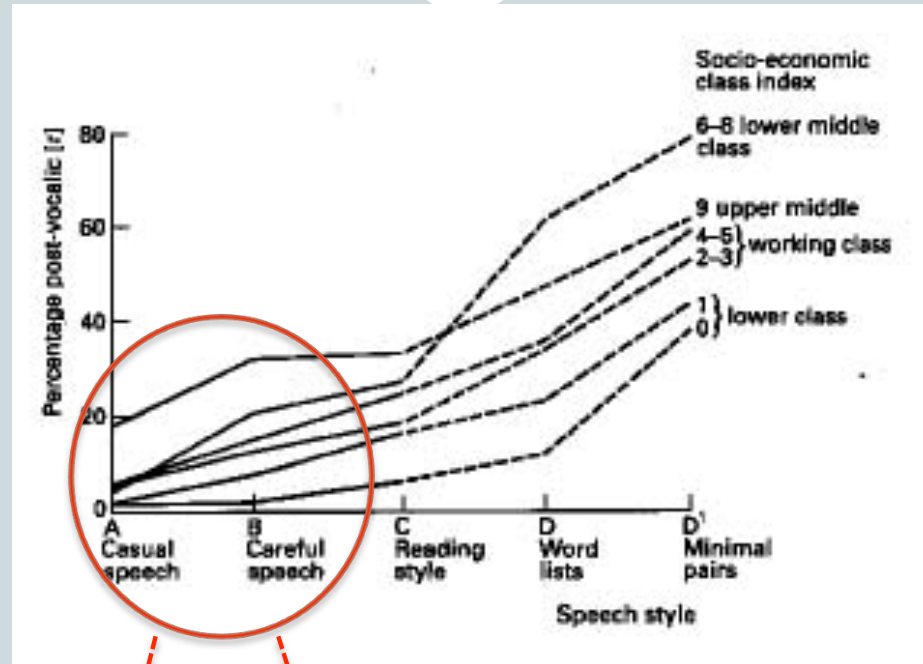
Our Interview Speech

Coda /r/ and Ethnicity

- African Americans and /r/
  - Labov (1966)
  - Labov (1966) Department Store
  - Fowler (1986)
  - Mather (2011)
  - Nagy and Irwin (2011)

In all of these studies, African American speakers use lower rates of [r-1] than their white counterparts

  - Blake and Shousterman (2010): African American New Yorkers use lower rates of [r-1] than West Indian New Yorkers

- Speakers of other non-white ethnicities and /r/ - ?
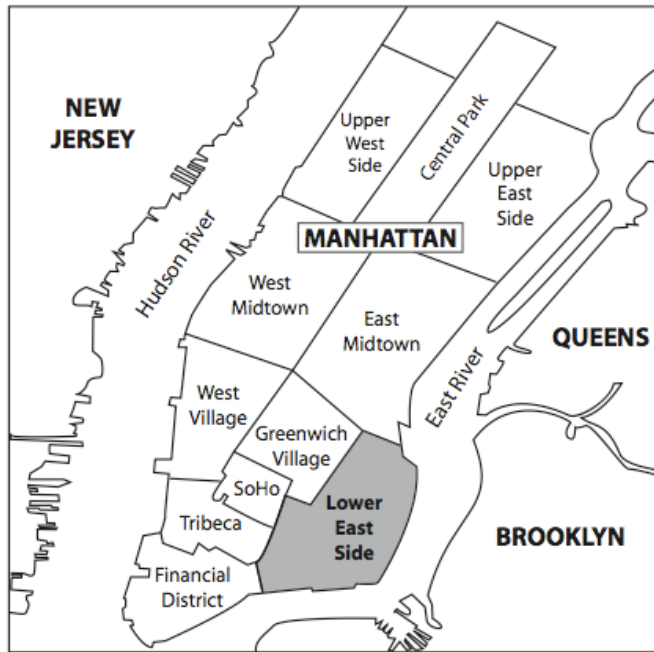
Year of Birth	1924-1951		1952-1973		1974-1990		
	F	M	F	M	F	M	
African American	2	2	2	2	2	1	11
Chinese	1	0	1	2	2	3	9
Jewish	3	3	2	4	2	1	15
Puerto Rican	2	3	4	3	3	1	16
White	3	3	3	2	1	2	14
Total	22		25		18		65

Auditory Coding of /r/

- Initial ratings of
  - /r/ constriction, or [r-1]
  - /r/ vocalization or /r/ deletion, or [r-0]
  - unclear
- Two coders working independently
- Agreement rate of 95%; a third coder resolved the remaining 5% of tokens.
- Resulting response variable (binary): [r-1] or [r-0]
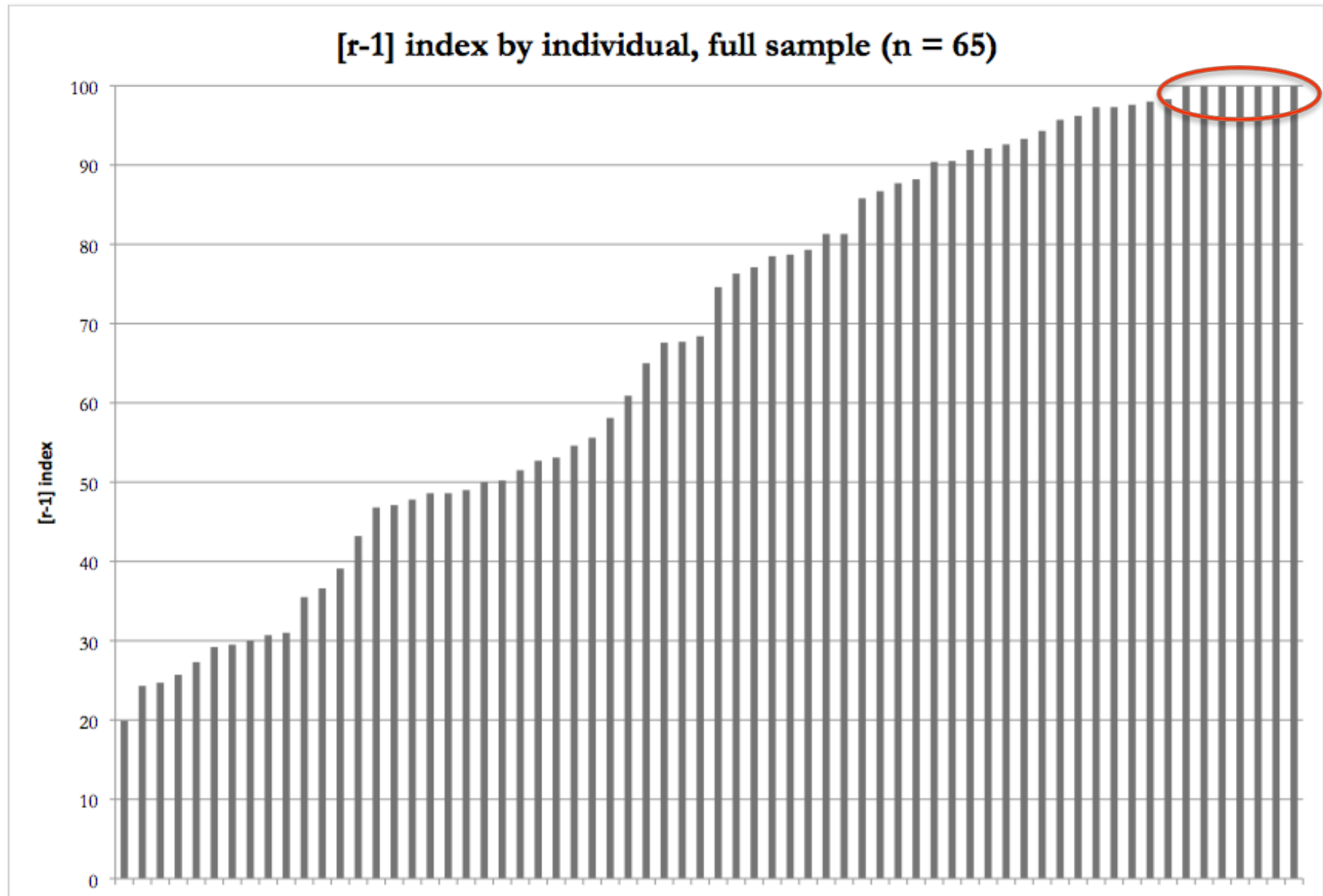- A total of 19,149 tokens of /r/ (average 295 per speaker)

Overall [r-1] index: [r-68]   🔊 Abe, [r-56]   🔊 Damaris, [r-91]

[r-1] index by individual, full sample (n = 65)

Internal Explanatory Factors

Syllabic Stress

Lexical/Functional

Number of Syllables

Lexical Frequency

Following Environment

- Word-final, preceding a vowel ("the bear is")
- Word-final, preceding a consonant ("the bear cub")
- Word-final, preceding a pause ("the bear")
- Morpheme-final, preceding a consonant in same syllable ("bears")
- Morpheme-final, preceding a consonant in next syllable ("boredom," "wonderful")
- Morpheme-internal ("beard," "normal")

Preceding Context

- BEER
- BEAR
- BORE
- BAR
- BURR

External Explanatory Factors

Year of birth (continuous)

Gender (M, F)

Ethnicity (African American, Chinese, Jewish, Puerto Rican, White)

Socioeconomic Status: Class scores based off of education, occupation, and housing type (range 4-19) collapsed into five class ranks:

    Lower Class

    Lower Working Class

    Upper Working Class

    Lower Middle Class

    Upper Middle Class

Generation Status (1.5 – 4)

Place Ideology (1-5)

Interactions:

- Year of Birth: SES

- Year of Birth: Ethnicity

- Year of Birth: Gender

- SES: Gender

- SES: Ethnicity

Significant Internal Factors

Best Run, One Level (Significant Internal Factors)						
Deviance	Degrees of Freedom		Intercept	Grand Mean		
12951.56	37		-2.297	0.678		
Random Effects of Speaker (SD = 1.713 and Word (SD = 1.439)						
Factor	Levels		[r-1]	N	Log odds	Factor Weight
Following Context (p < 9.51e-138)	Word-final, preceding a vowel		77	2366	1.245	.776
	Morpheme-internal		78	6582	.588	.643
	Word-final, preceding a pause		71	2207	.571	.639
	Morpheme-final, following consonant in same syllable		61	2010	-.451	.389
	Word-final, preceding a consonant		54	4702	-.706	.33
	Morpheme-final, following consonant in next syllable		53	1282	-1.247	.223
Preceding Phonological Context (p < 5.91e-47)	BURR		69	10793	1.567	.827
	BEER		68	1326	.108	.527
	BAR		74	2422	-.305	.424
	BEAR		64	1339	-.490	.38
	BORE		62	3269	-.880	.293
Syllabic Stress (p < 2.74e-35)	Stressed		75	10794	.989	.729
	Unstressed		59	8355	-.989	.271
Lexical (0.0148)	Lexical		69	14480	.194	.548
	Functional		64	4669	-.194	.452

Significant Social Factors

- Year of Birth: Ethnicity (p = 0.00024)

    Year of Birth [main effect]

    Ethnicity [main effect]

- Gender: Class Rank (p = 0.0145)
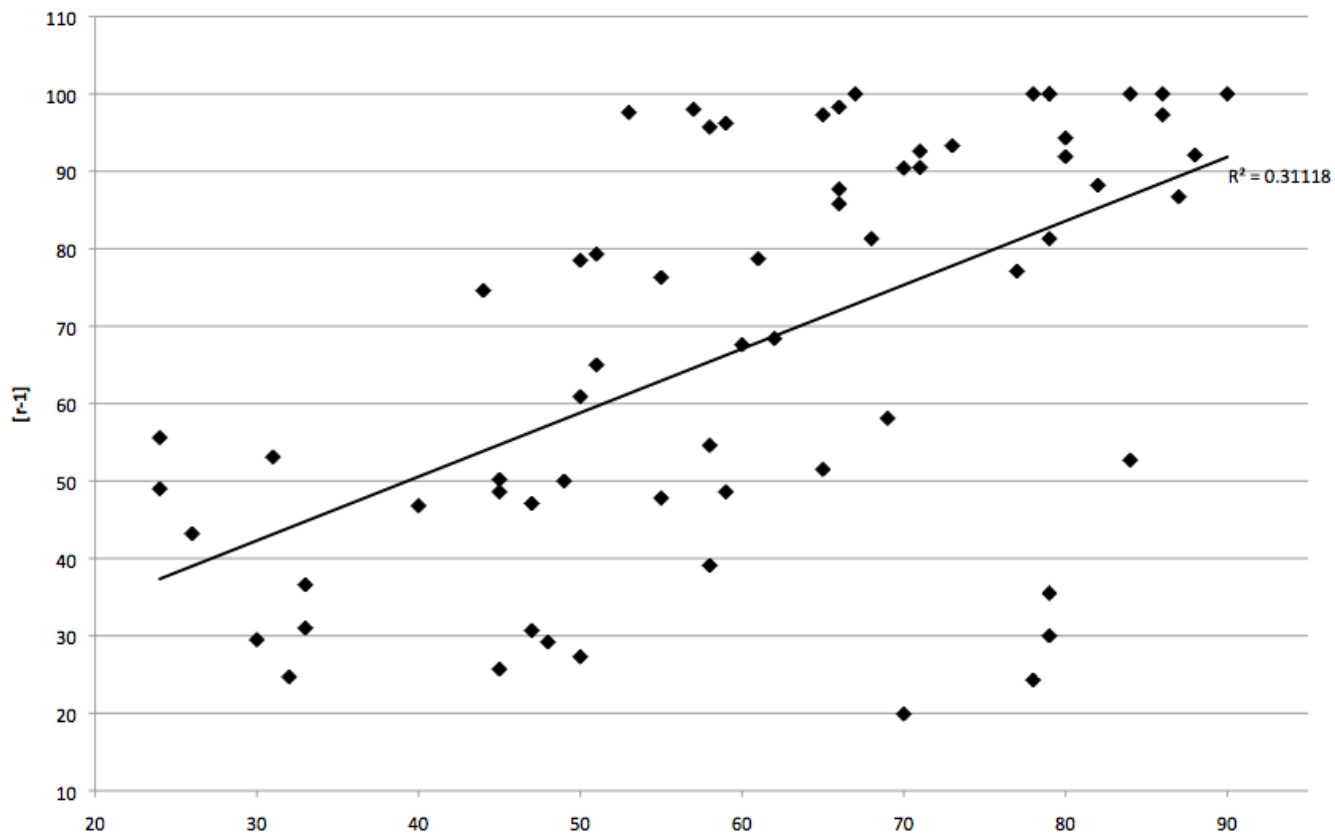
    Gender [main effect]

    Class Rank [main effect]

- Generation Status (p = 0.00224)

Full Model: SPEAKER [random] and word [random] and Following Context (8.61e-138) + Preceding Context (7.59e-47) + Syllabic Stress (3.12e-35) + Year of Birth:Ethnicity (0.00024) + Generation Status (0.00224) + Lexical (0.0142) + Gender:Class Rank (0.0145) + Gender [main effect] + Ethnicity [main effect] + Class Rank [main effect] + Year of Birth [main effect].
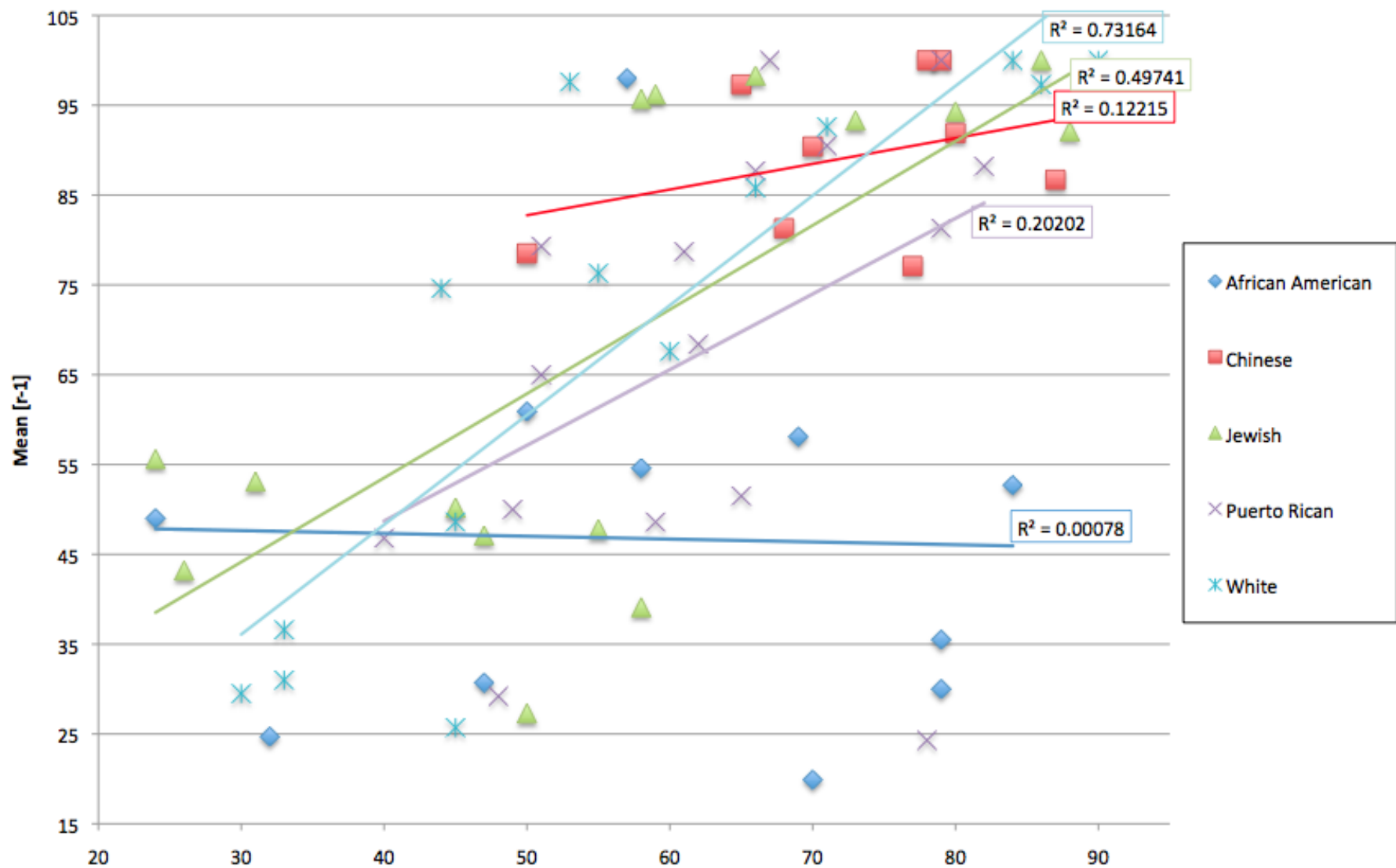
(Deviance = 12951.56, df = 37; intercept = -2.297 ; grand mean = .678)

[r-1] index by speaker year of birth

Mean [r-1] by year of birth and ethnicity

$R^2 = 0.73164$
$R^2 = 0.49741$
$R^2 = 0.12215$
$R^2 = 0.20202$
$R^2 = 0.00078$

Mean [r-1]

- ◆ African American
- ■ Chinese
- ▲ Jewish
- ✕ Puerto Rican
- ✳ White

Gender and Class Rank as main effects

Factor	Level	[r-1]	N	Log odds	Factor Weight
Gender	Women	74	9647	.739	.677
	Men	61	9502	-.739	.323

Factor	Level	[r-1]	N	Log odds	Factor Weight
Class	Lower Middle	84	3268	1.123	.754
	Upper Middle	71	2082	.530	.63
	Upper Working	70	4676	.423	.604
	Lower Working	66	5291	-1.032	.263
	Lower	53	3832	-1.043	.261

Gender and Class Rank
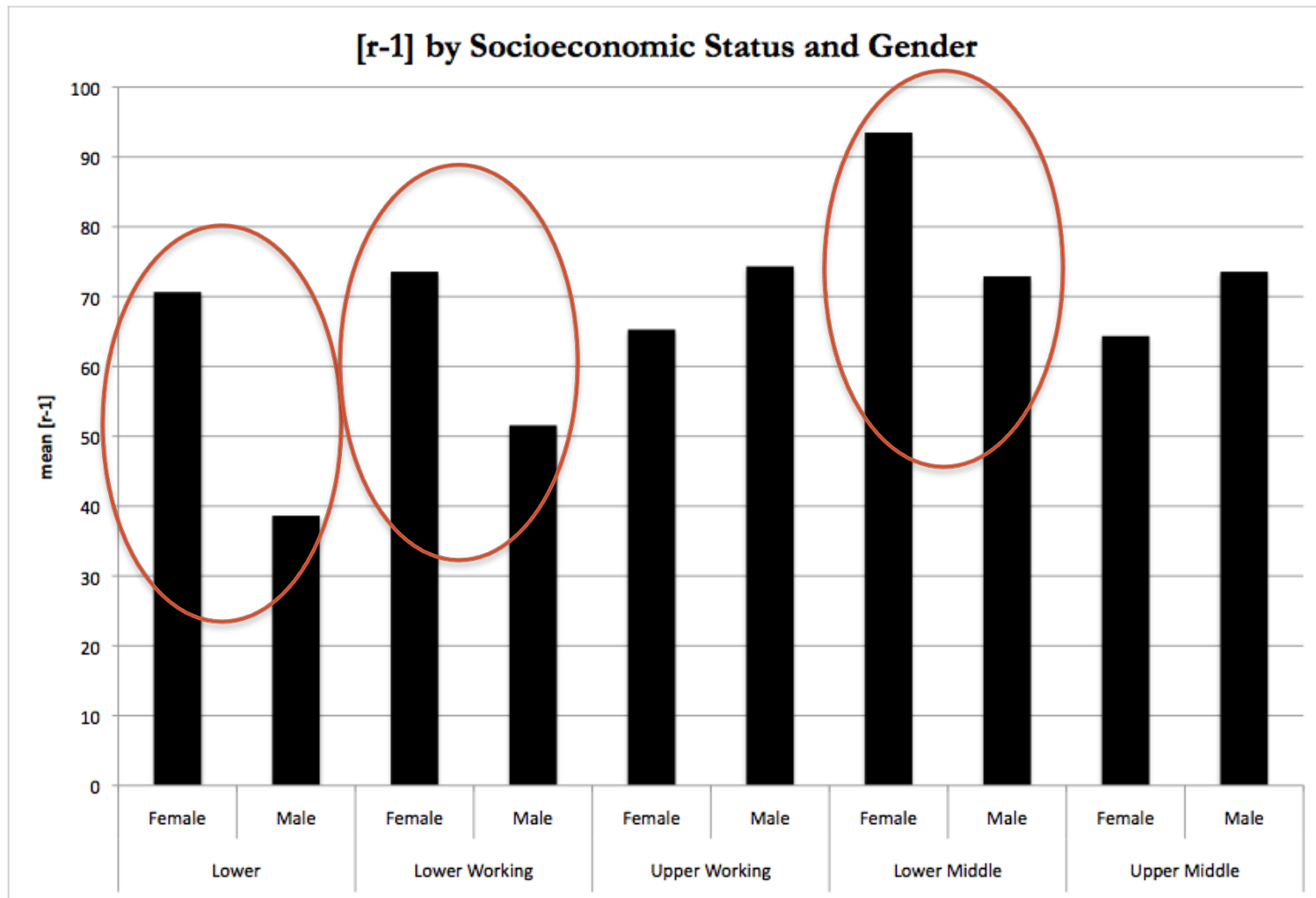
African Americans
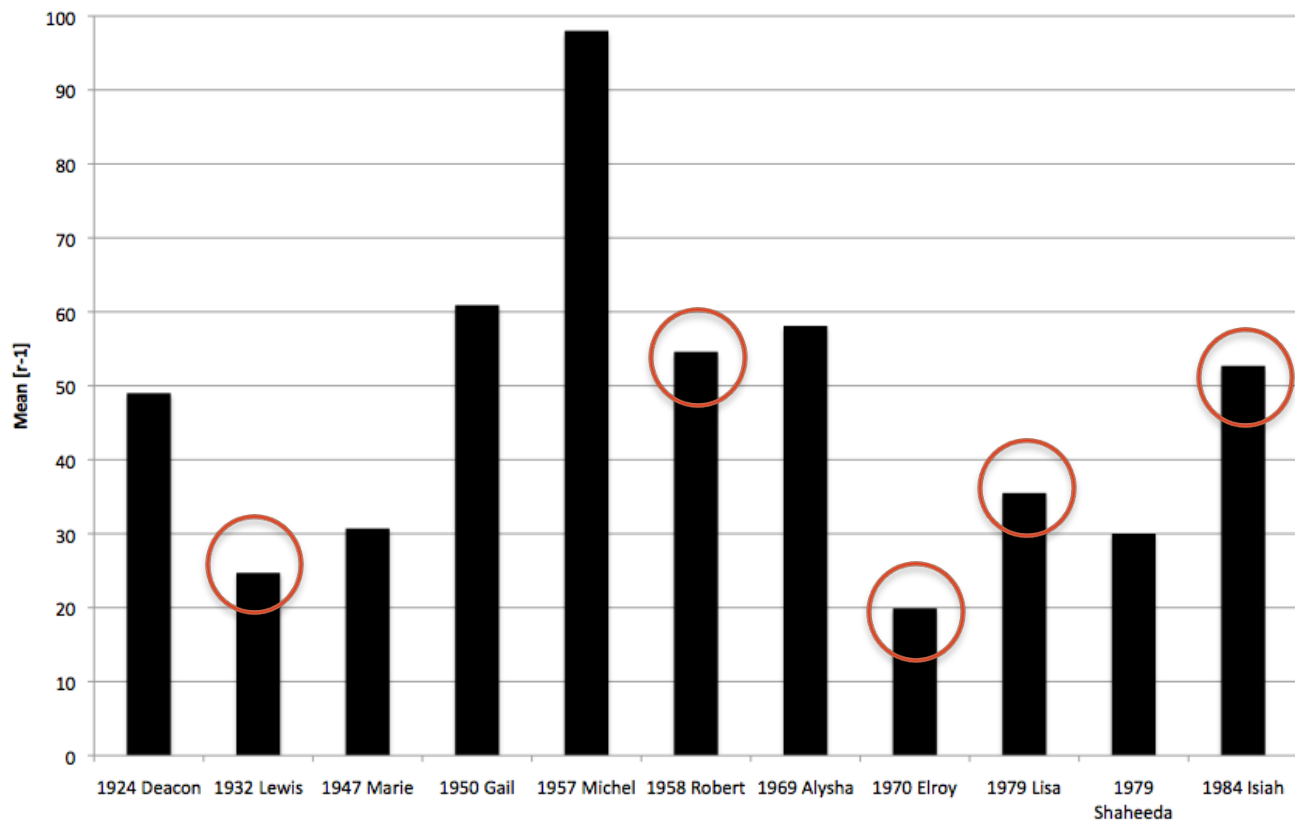
Operationalizing Place Ideology

Mean [r-1] by Place Ideology
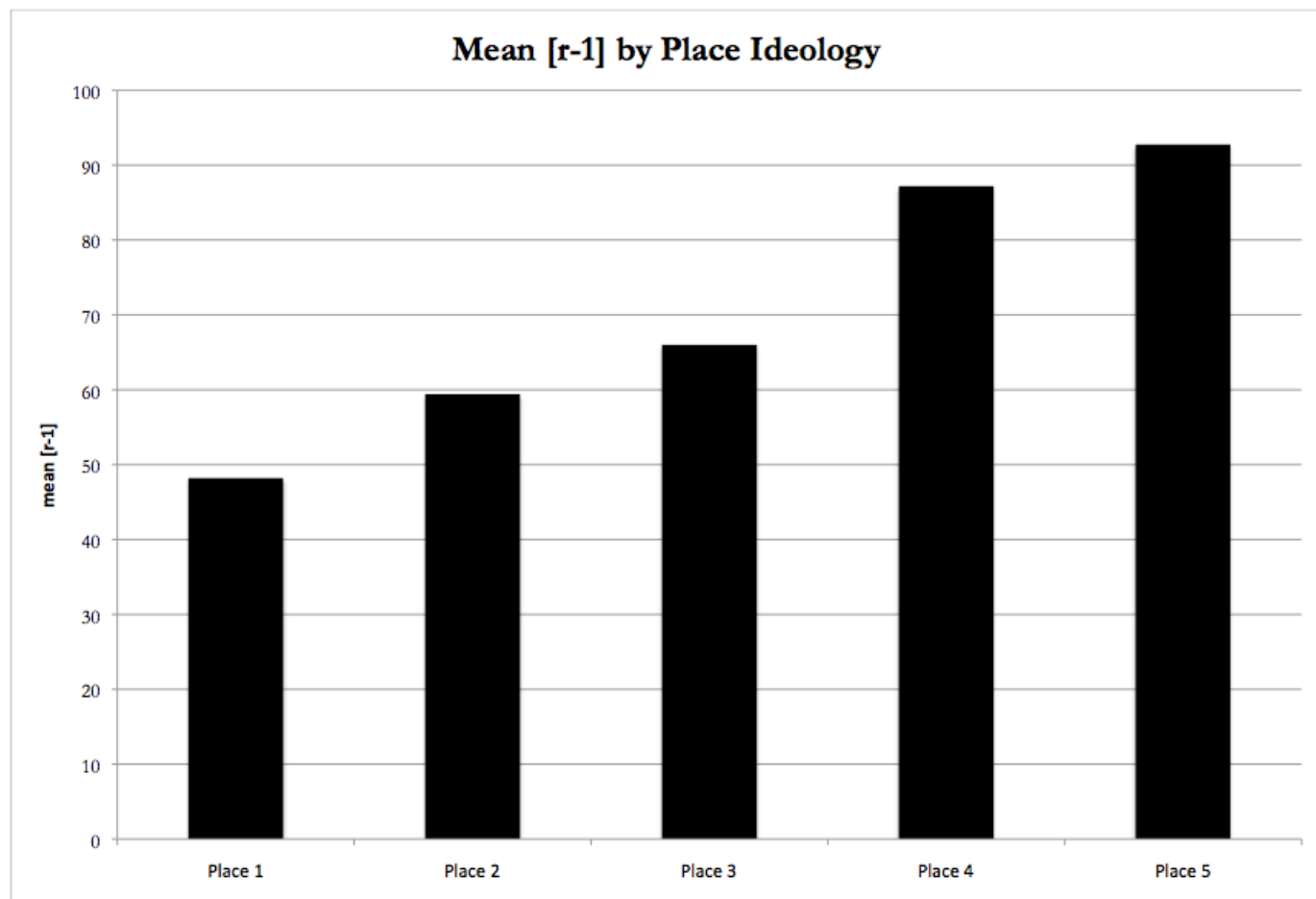
Quantifying /r/'s increase

	1962	2006	Increase 1962-2006	Percent Yearly Growth (44 years)
Working Class	5	53	212%	4.8%
Lower Working Class	12	65	442%	10%
Upper Working Class	14	70	400%	9.1%
Lower Middle Class	21	84	300%	6.8%
Upper Middle Class	34	71	109%	2.5%

Mean [r-1] for five class groups, 1962 and 2006
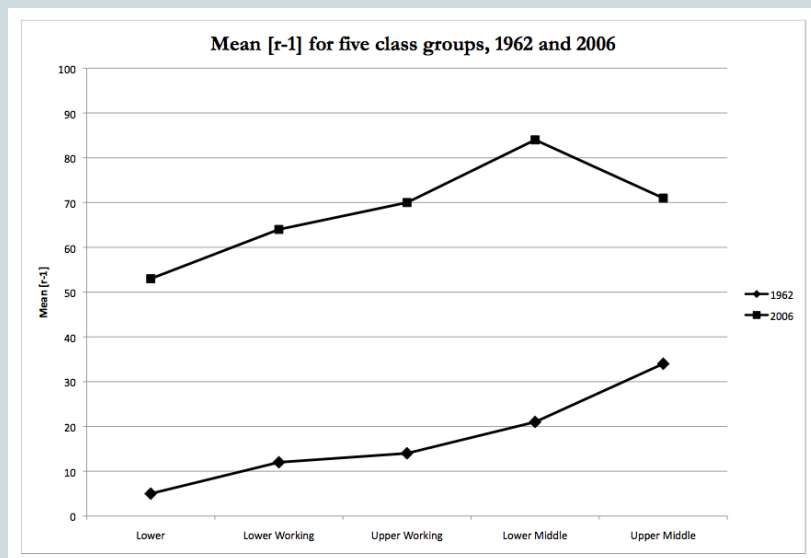
- "slow" to…. not slow?

- Lower Middle Class leads [r-1] production in interview speech, but not rate of increase compared to 1962 – other class groups are catching up

Conclusion

- Internal factors that predict [r-1]: preceding and following context, syllabic stress, and lexicality

- Social factors that predict [r-1]: Year of birth in interaction with ethnicity; Gender in interaction with class; Generation status.

- Change is no longer slow, no longer formal

- Change in progress found for four ethnic groups – white, Jewish, Puerto Rican, and Chinese Lower East Siders

THANK YOU!

Please email us with questions or for copies of these slides:

kbecker@reed.edu

kaston@reed.edu

Special thanks to: Laura Leibman, Hannah Kosstrin, Ely Fernandez-Collins, Daniel Ezra Johnson, members of the Reed linguistics department, and Oliver Binkley.

References

- Becker, Kara. 2009. /r/ and the construction of place identity on New York City's Lower East Side. *Journal of Sociolinguistics* 13 (5): 634-658.

- Blake, Renée and Cara Shousterman. 2010. Second generation West Indian Americans and English in New York City. *English Today* 103 (26): 35-43.

- Feagin, Crawford. 1990. The dynamics of a sound change in Southern States English: From R-less to R-ful in three generations. In Jerold A. Edmondson, Crawford Feagin and Peter Muhlhausler (eds.) Development and Diversity: Language Variation across Time and Space. Arlington, Texas: The Summer Institute of Linguistics and the University of Texas at Arlington. 129–145.

- Fowler, Joy. 1986. The social stratification of (r) in New York City department stores, 24 years after Labov. Unpublished manuscript, New York University, New York City, New York.

- Johnson, Daniel. 2009. Getting off the GoldVarb standard: Introducing Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass* 3/1, 359-383

- Labov, William. 1966. The Social Stratification of English in New York City. Washington, D.C.: Center for Applied Linguistics.

- Labov, William. 1972. Sociolinguistic Patterns. Philadelphia, Pennsylvania: University of Pennsylvania Press.

- Labov, W., Ash, S., & Boberg, C. (2006). *The Atlas of North American English: Phonetics, Phonology, and Sound Change*. Berlin: Walter de Gruyter.

- Mather, Patrik-André. 2011. The social stratification of /r/ in New York City: Labov's department store study revisited. *Journal of English Linguistics*.