

The **Pacific Northwest English Study**



Social Networks, Ethnic Communities and Linguistic
Repertoires (working title...help?)

Book Progress Report | Alicia Beckford Wassink

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Acknowledgement

- Shane Lubold •

PhD, 2023, UW Dept. of Statistics

Currently Research Mathematical Statistician in the
Missing Data and Observational Data Modeling
Group in the Center for Statistical Research and
Methodology at the U.S. Census Bureau

this project was his PhD capstone project!



Goals

- SNEC takes both broad and close-up views of the relationship between social networks and linguistic repertoire in Underrepresented minority speakers (URMs).

Social Network: "An individual's social network is the aggregate of relationships contracted with others, a boundless web of ties which reaches out through social and geographical space linking many individuals, sometimes remotely."

--Dubois and Horvath (1998)

Background

- Pioneering applications of social network methods in sociolinguistics engaged with social networks mainly in small, closed, monoethnic, territorially-bounded communities.

(Labov, 1963*), Blom & Gumperz 1972, Milroy & Milroy 1978, L. Milroy 1980 (1987), Lippi-Green 1989, Gal 1989, Eckert 1990

- Studies of mobile, urban URM communities remain few.

S.-M. Bortoni-Ricardo 1985, Ash & Myhill 1986, V. Edwards 1986, W. Edwards 1992, Cheshire et al. 2008

*not really a network study

Background, cont.

- However, ...
- Mobile, minority ethnic speech communities are not the exception to the rule!
 - Cheshire et al. – The Netherlands, Germany, France and the United Kingdom
 - Ash & Myhill – interethnic contact with the “opposite ethnicity” in Philadelphia
 - Marshall – adoption of change in mobile speakers in Aberdeenshire, Scotland
 - Bortoni-Ricardo – rurban migration into Brasilia
- book blends old and new (for sociolinguistics) social network methods to allow expansion of network methods to large, mobile, minoritized communities

Themes

- **how might we best characterize the social networks of mobile underrepresented minority (URM hereafter) speakers?**
- **what do “localness” and “mobility”** mean for such speakers?
 - e.g., Milroy and Milroy (1978) Network Strength score
 - how might network structure serve to resist or promote the uptake of regional vowel changes?
- **what does it mean to study ethnic linguistic repertoires** in 2024?
 - ethnicity, ethnolect as stigmatized terms
 - the norm in sociolinguistic studies has been to assume that underrepresented minority (URM) speakers do not participate in ongoing changes-in-progress, and to thus *a priori* hold them aside from large-scale studies of dialect change, assuming they're **separate subcultures**
 - current focus is on **multiethnolects** (Cheshire)
- **how might sociolinguists' network tools** be extended to study such network types?

Monograph Outline

1) A monograph is a specialist-written work on one subject or one aspect of a scholarly subject, often by a single author or artist. 2) in-depth academic work that presents original research, analysis, and arguments

Acknowledgements
Part I: Language and Social Networks
Part II: Ethnicities of the PNWE study
Appendices
R Code (for network analysis and figures)
Companion website contents
Index
References
Author Positionality Statement

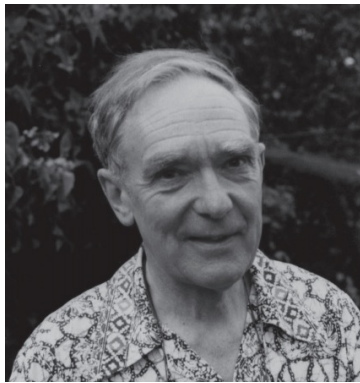
**working titles*

Part I: Language and Social Networks		
Chapter 1	●	“Underrepresentation two ways”: the sociolinguistic landscape of the PNW
Chapter 2	●	Sociolinguistic applications of social network analysis and theory
Chapter 3	●	New connections to social network theory
Chapter 4	●	Underrepresented minorities and the speech community
Part II: Communities of the PNWE Study		
Chapter 5	●	Localness: A sociolinguist's-eye-view
Chapter 6	●	Localness and African Americans in the Pacific Northwest
Chapter 7	●	Homophily and being Yakama
Chapter 8	●	Mobility and Mexican American Presence in the PNW
Chapter 9	●	Ethnic connectedness in the Japanese-American Community
Chapter 10	●	Heritage varieties, retention and participation in change
Chapter 11	●	Mobility and Network Structure

Problems

- aren't modern urban people's networks too big to study?
- how do we deal with "localness" when URM's may live in a subculture in a city AND exhibit integration into the mainstream life of their city...what's "local" for such speakers?
- If we don't use a network strength score, then what???

Barnes & Bott (& Mitchell) – the Manchester School



John Arundel Barnes. coined the phrase, "Social Network" in "Class and Committees in a Norwegian Island Parish," *Human Relations VII*
Posited that 3 separate 'fields' (types of social relationships), subsume human interactions: industrial, territorial, personal (kinship, friendship and neighborliness).



Elizabeth Bott Spillius. *Family and Social Networks*

Independently determined the importance of these personal networks as an intervening structure between persons and institutional (or organized) groups. Demonstrated this relationship by examining kin structures and role sets, particularly conjugal roles and women's networks.

The Bott hypothesis

Network density:

"When **many of the people a person knows interact with one another**, that is when the person's network is close knit, the **members of his network tend to reach consensus on norms** and they **exert consistent informal pressure** on one another to conform to the norms, to keep in touch with one another, and, if need be, to help one another.

— Elizabeth Bott, *Family and Social Network*. 1971

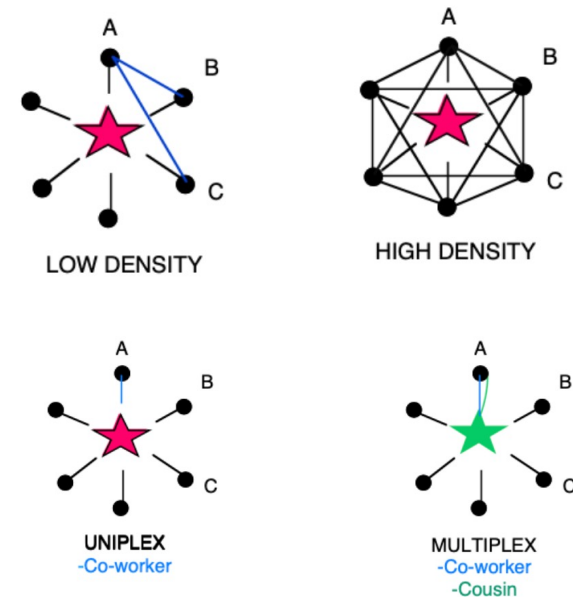
Network multiplexity:

"Multiplexity is the **overlap of roles, exchanges, or affiliations** in a social relationship.

— L. Verbrugge, *Multiplexity in Adult Friendships*. 1979

"Where we see high network density, we are more likely to find multiplex social role relationships."

primary network zone



Traditional Milroyan Network Strength Scale

5 possible points:

1. Membership in a territorially-based, high density cluster
2. Substantial ties of kinship within the neighborhood
3. Employment in the same place as 2 others
4. Workmates include members of the same gender
5. Voluntary association with workmates

Upper limits on network size

- Mitchell (1973): For modern urbanites, life often takes place in separate, unconnected groups with specialized functions: find jobs, arrange for childcare, seek financial assistance.
- BUT... even modern urban people tend to find strongest sense of social connectedness in close networks (of limited size)...

THE NEW YORKER

THE LIMITS OF FRIENDSHIP

BY MARIA KONNIKOVA



PHOTOGRAPH BY NICK HANNES/HOLLANDESE HOOGTE/REDUX

“Dunbar Number”: 5 intimates → 15 closest friends → 150 named friends → 500 acquaintances → 1500 “known” in name only (Konnikova, 2015)

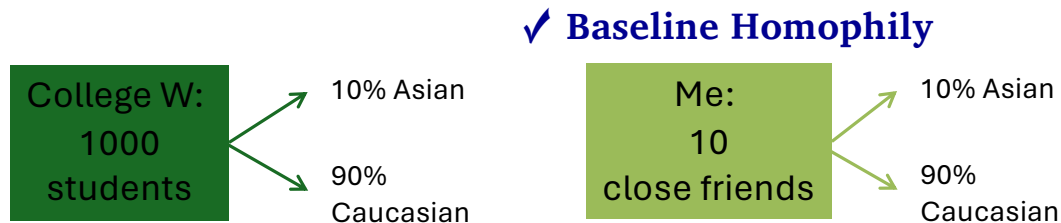
Methods

- Network Localness score (adapted from Lippi-Green 1989)
 - Network Homophily of close-friend network (Macionis 1978, McPherson et al. 2001)
 - Network Reach (Heterophily) of close-friend network (Macionis 1978, McPherson et al. 2001)
 - Simulated Aggregated Relational Data (ARD) (Breza et al. 2019)
 - n=135 PNWE speakers
 - African-American
 - Caucasian-American
 - Mexican-American
 - Yakama
 - Japanese-American
- 21-item network questionnaire
- Kinship, Occupation, Vol Assn.
 - name 10 closest friends
 - shared values, beliefs (tie formation)

Network homophily

- Homophily (Def.): The tendency for individuals to form positive ties with people who are similar to them in socially significant ways (for “birds of a feather flock together”) (Byrne 1971; McPherson, Smith-Lovin and Cook 2001)
- **baseline homophily**: network similarity effects created by the demography of the potential tie pool, conceptualized as an opportunity set.

- e.g.,



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Homophily Index

$$H_i = \frac{s_i}{s_i + d_i}$$

H_i = Homophily

N_i = # of i individuals in population

s_i = same friends type i

d_i = different friends $j...k$

t_i = total friends that speakers of type i form

w_i = baseline weighting factor

- Homophily is known to be biased towards own-types (“inbreeding”). How can we tell if this is really by choice, or a function of the opportunity pool? Weight our homophily measure by the baseline proportion of the speaker’s group. Is $H_i > w_i$? Inbreeding homophily is present.

$$IH_i = \frac{H_i - w_i}{1 - w_i}$$

Baseline Data, Washington state

Group	2020 Census Count	proportion
White	5,656,119	.81
Black or African-American	270,420	.04
American Indian and Alaska Native	127,578	.02
Asian	538,828	.08
Native Hawaiian or Other Pacific Islander	48,369	.0007
Two or more races	326,856	.05
Total population of WA State (Washington State Office of Financial Management, Forecasting and Research Division, 2014): 6,968,170		

calculations were weighted by baseline proportion, by county [not shown here].

$$\frac{\text{number of people I know in a group}}{\text{number of people in that group in the population}}$$

Homophily RQ

- Early PNWE study finding: ethnicity is not associated with participation in vowel changes (Wassink 2015). Is network homophily a better predictor?
 - H0: There is no association between ethnic homophily [in close friend net] and advancement in PNWE changes / sociolectal features.
 - H1: Ethnic homophily is positively associated with a speaker's participation in use of their ethnic group's sociolectal features.
 - H2: Ethnic homophily is negatively associated with participation in regional vowel changes if a phonological competitor exists in the competing vernacular.

Homophily results

bake /eg/ ~ beg /ɛg/ ~ bag /æg/

Within-group correlation analysis of individual PCT homophily scores and Advancement in prevelar raising.

Ethnicity	Prevelar Advancement Score			PctHomophily Score			Pearson r	t	p-value	sig. (* = p < 0.05, ** = p < 0.01)
	Avg.	Min.	Max.	Avg.	Min.	Max.				
African American	0.55	0.44	0.68	0.37	0.18	0.56	0.27	0.55	0.61	
Caucasian	0.58	0.37	0.91	0.89	0.30	1.00	-0.11	-0.62	0.54	
Japanese American	0.55	0.31	0.82	0.53	0.10	1.00	-0.73	-3.82	0.00	**
Mexican American	0.51	0.38	0.75	0.62	0.20	0.82	0.04	0.11	0.91	
Yakama	0.53	0.35	0.68	0.77	0.54	1.00	-0.72	-2.56	0.04	*

Network Reach RQ

- Range of ethnic types in the close-tie network (heterophily)
- Close-tie network sizes might be different, which requires proportion rather than count, be used:

$$\frac{\frac{s_i}{s_i + d_i} - w_i}{-w_i}$$

RQ: Is the likelihood of uptake of PNWE changes greater when URMs are connected through ties of close friendship to the Caucasian-American group?

- H0: Network reach (in close-friend network) is not associated with advancement in regional vowel changes.
- H1: Higher values for network reach are associated with greater participation in regional vowel changes.

Network reach results

positive correlation: as homophily in the friend group increases, so does the number of friend types

negative correlation: as homophily in the friend group increases, the number of friend types decreases

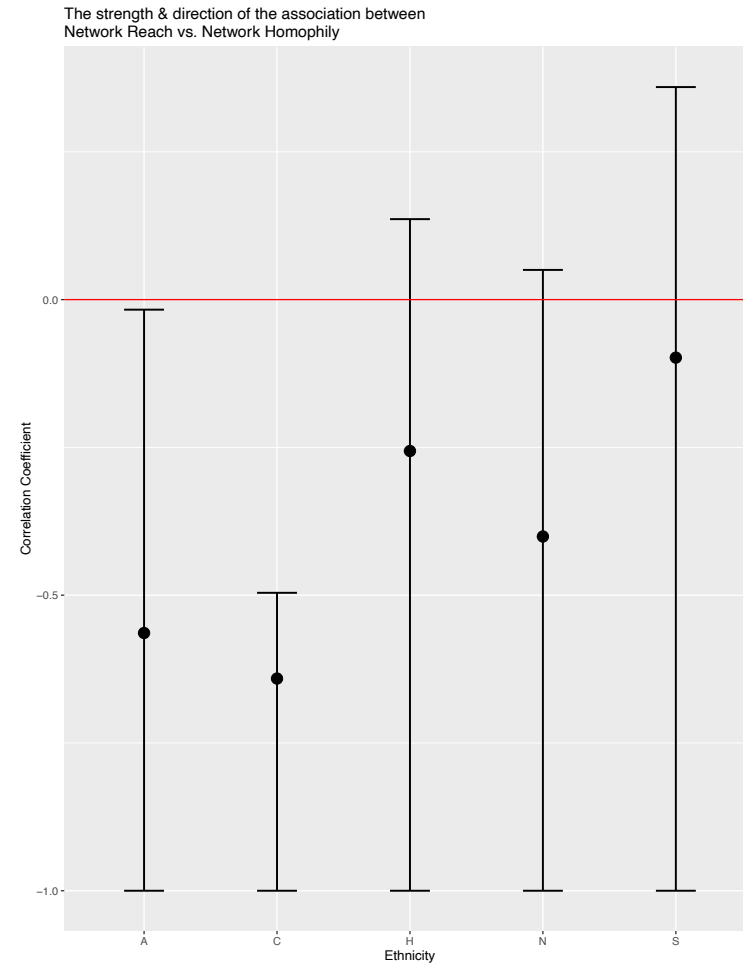
Caucasians: $r = -0.64$, $p < .001^{**}$

Hispanics: $r = -0.26$, $p < 0.1$ (ns)

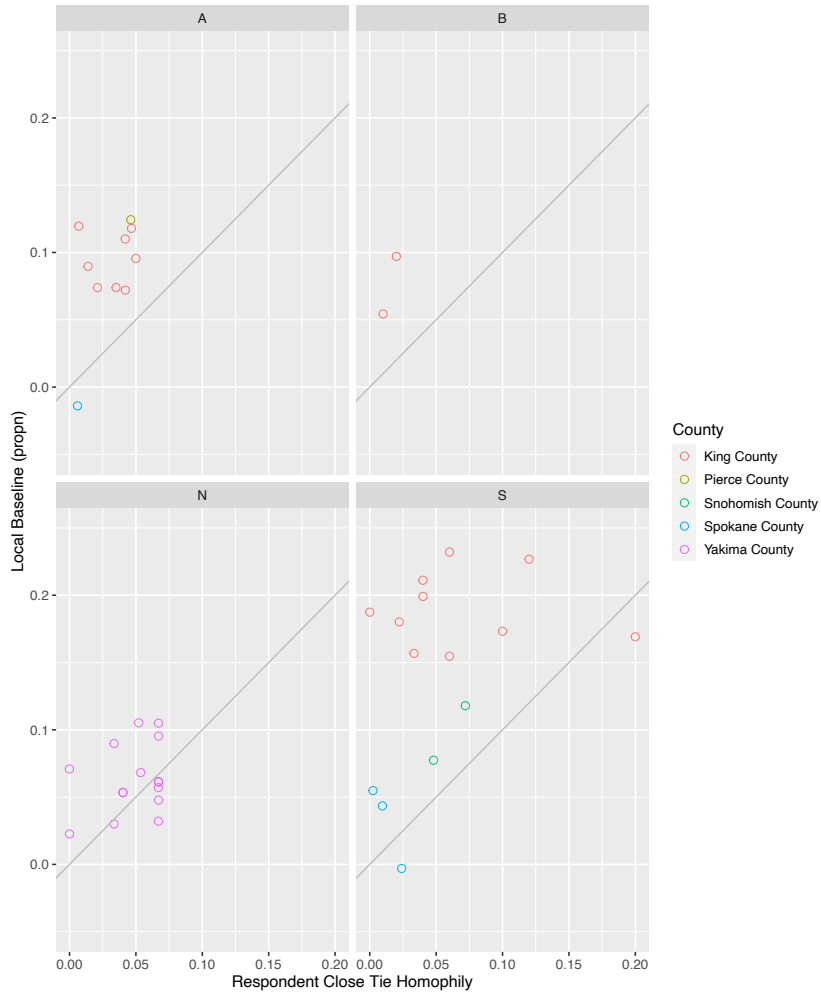
Native Ams: $r = -0.4$, $p < 0.1$ (ns)

African Ams: $r = -0.56$, $p < 0.05^*$

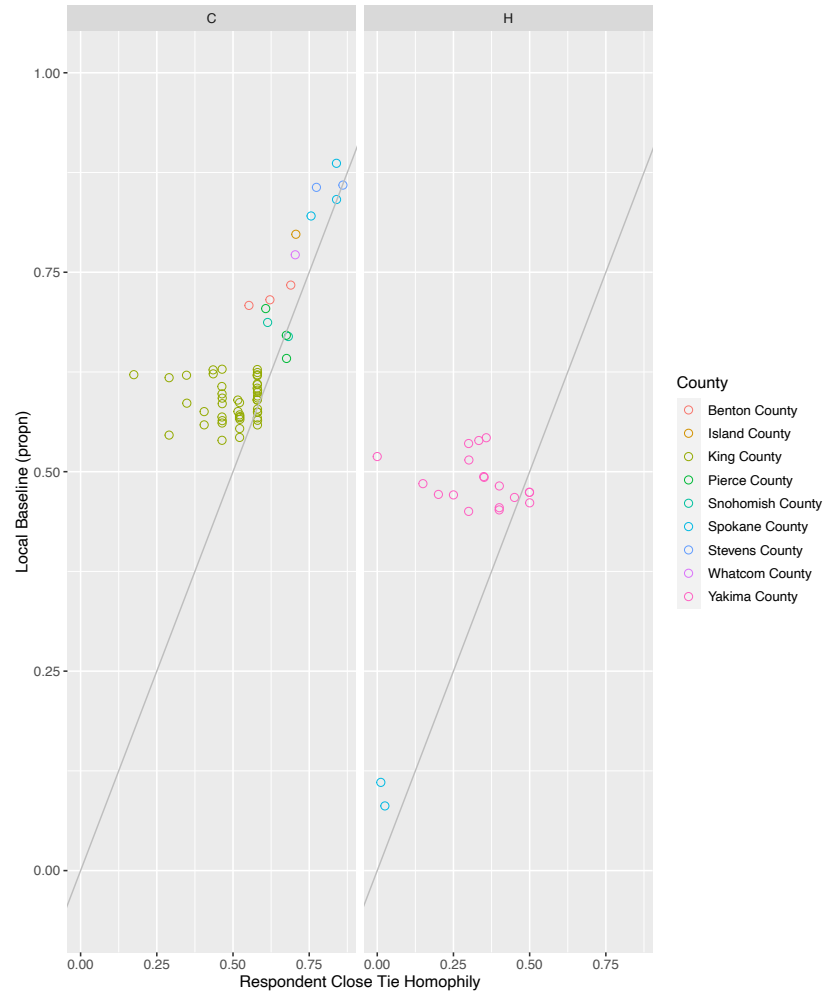
Asian Ams: $r = -0.09$, $p < 0.5$ (ns)



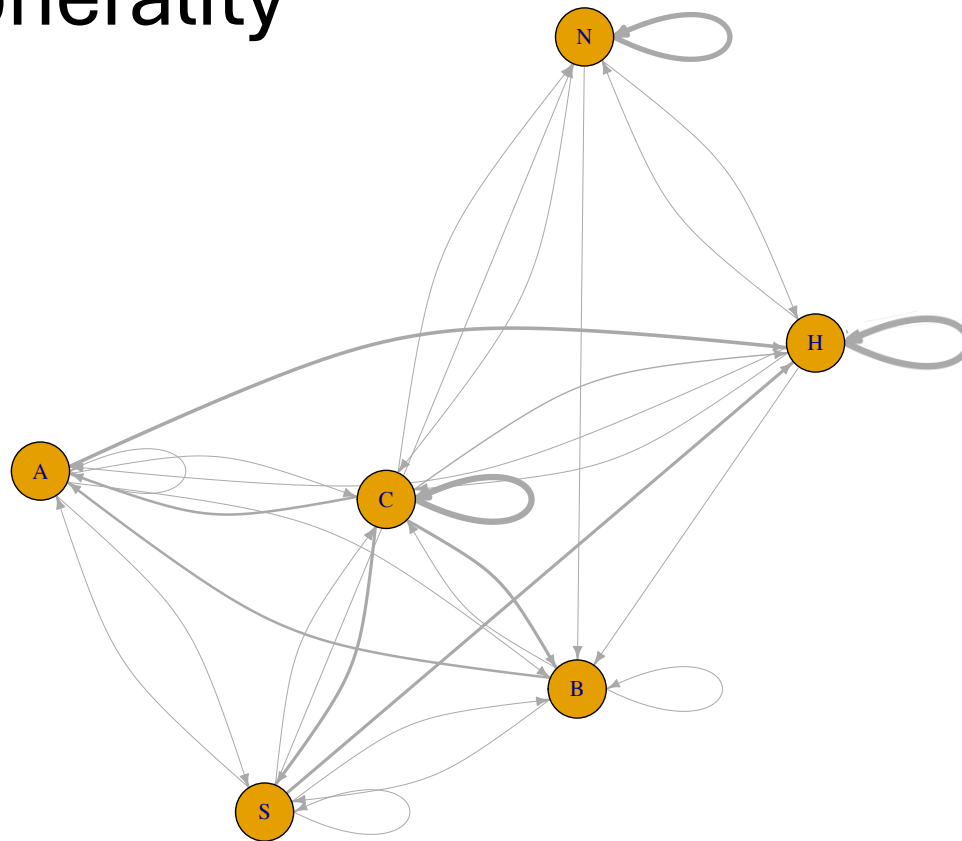
Network Homophily by
County Baseline Proportion
(Af-Am, Biracial, Yakama, J-Am only)



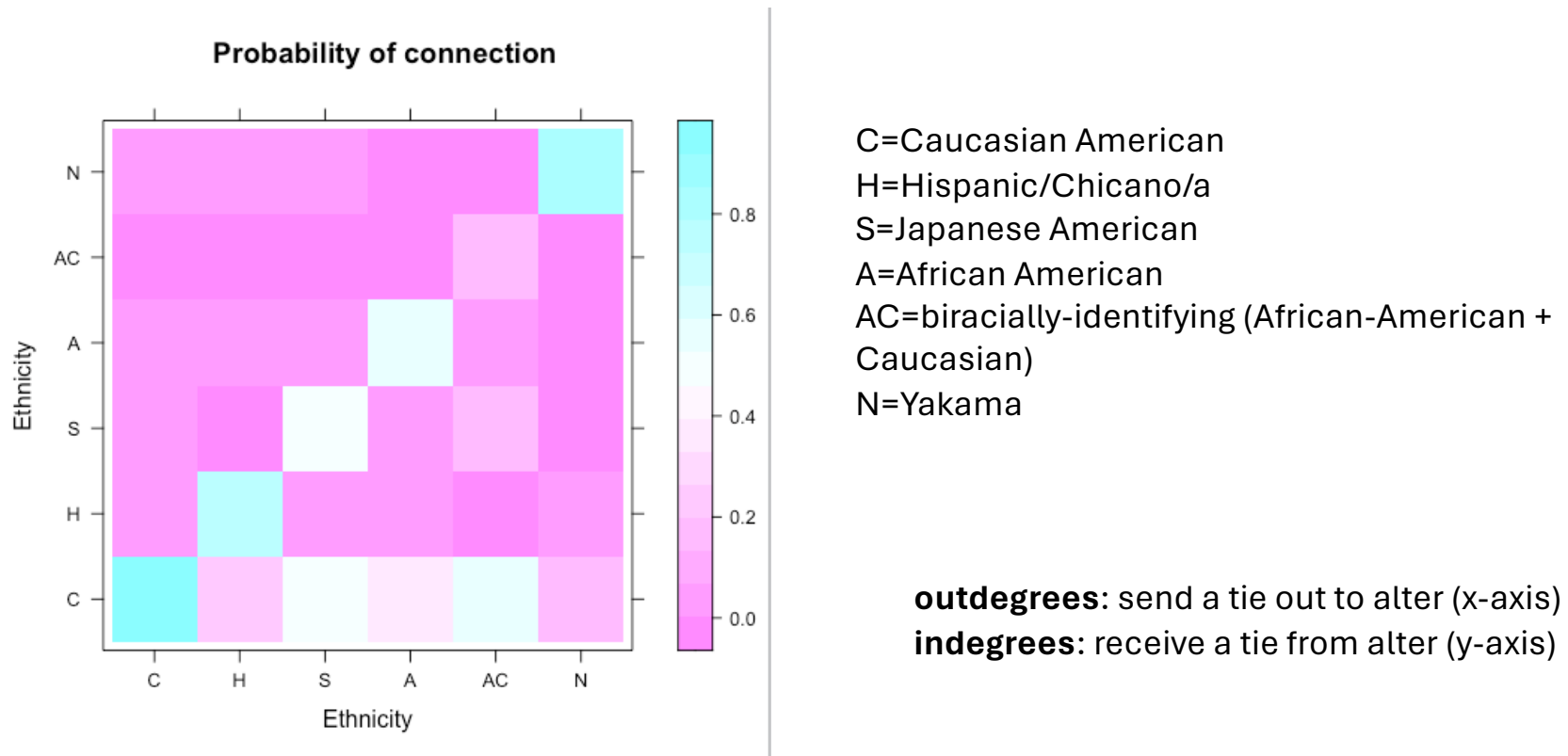
Network Homophily by
County Baseline Proportion
(Caucasian and Chicano/a only)



Cross-ethnicity connections: centrality & peripherality



Heterophily: Probability of connection



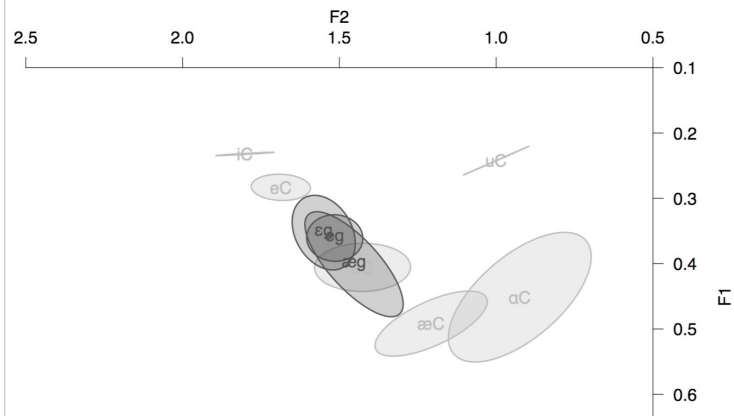
Perceived Ethnic connectedness in the Japanese-American Community

- 2 sisters from Capitol Hill (lawyer, healthcare professional)
- schools had high diversity & highest propn of Japanese in J-Am subsample
- neither claims fluency in Japanese

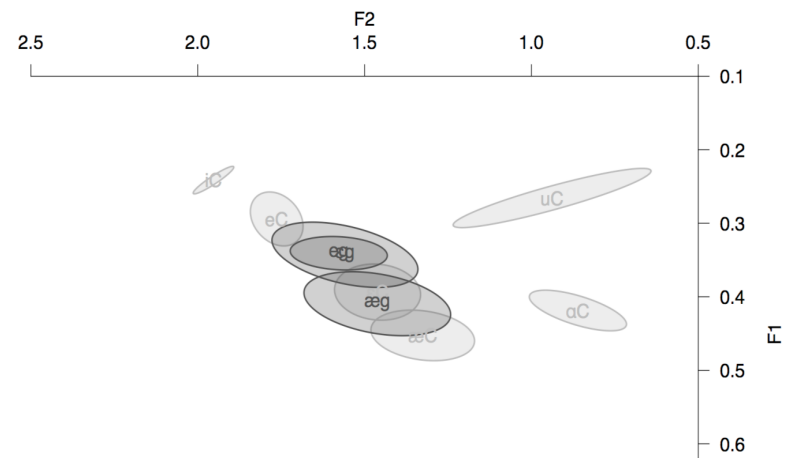
Network localness scores for two Japanese-American sisters, compared to ethnic cohort (0=no local ties in network subsector; 1=all local ties)

	Age	Overall NLS	Kinship Subsector	Schooling/ Occupation Subsector	Voluntary Association Subsector
Japanese-American cohort average (n=15)		0.51	0.39	0.66	0.87
Karen	47	0.42	0.25	0.50	0.50
Anna	57	0.61	0.50	0.50	0.83

Karen (47)



Anna (57)



- Karen: "...but they [Japanese-American kin] all lived over in Beacon Hill area, so we felt kinda like we didn't belong..." (0:47:36.908).

"[...] I, w- went shopping with my cousin [...] and I said 'let me do it myself' so I, y'know, bought this thing and I spoke Japanese and, um... then the, saleswomen were together and they were whispering and, ...'they s- thought you spoke really good, good Japanese for being, retarded.' " (00:44:31.458, 'Shopping Trip')

NETStrengthScore 7.5

Closest Friends or Acquaintances

	Initials	Gender	Same Ethnicity?	Ethnicity	Family?	Place of Residence	Occupation	Value Homophily Category
Friend 1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friend 10	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Value homophily key [fieldworker use]:
Preferences: common tastes, hobbies, sports, politics
Attitudes: studious, community, or family-oriented
Beliefs: shared history, faith, civic concerns
 Other (**not value**): shared culture, ethnicity

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