

## **Local Population Composition and Romantic/Sexual Relationship Homophily**

### *I. Project Overview*

People typically select sexual and romantic partners who are similar to them. Most sexual/romantic pairs are in the same racial-ethnic group, have similar class backgrounds, and are geographically proximate. Such patterns of homophily (i.e., contact between similar people being more common than among dissimilar people) implies that sexual networks frequently do not traverse certain social divisions (e.g., race, class) or geographic boundaries.<sup>1</sup>

This project uses data from the National Longitudinal Survey of Adolescent Health (Add Health) to test how the race and class composition of local populations (e.g., within schools and residential neighborhoods) influences race, class, and geographic homophily in romantic/sexual partnerships. Homophily in general will result from the interaction of (i) people's personal preferences for mixing with people similar to them, and (ii) local structural opportunities/constraints (e.g., population composition) that influence the likelihood that one meets and can enter into a relationship with someone of a given background. Although this intuitive point is widely acknowledged, there is little research into how people behave when potential homophilous partners are in short supply. If someone is in a residential area or school with relatively few opposite sex people of similar race and class backgrounds, how does s/he respond? Does s/he pick a local partner with the same race, but a different class position? Does s/he pick a local partner of a different race, but with a similar class position? Does s/he find a partner who is similar in terms of race and class, but is outside of the local community (i.e., lives far away or goes to another school)? Or, does a person faced with relatively few potential homophilous partners choose not to "compromise" on any of these dimensions and simply reduces his/her number of partners?

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<sup>1</sup> McPherson, M, L. Smith-Lovin, J. Cook (2001) Birds of a Feather: Homophily in Social Networks. *Annual Review of Sociology*. Vol. 27: 415-444

These research questions are motivated by a concern with disparities in sexually transmitted infections (STIs) in the United States. Rates for many STIs in African American communities are several times rates in white communities. Many STIs are more prevalent among those with lower incomes and less education. And, most STIs are clustered in particular areas within cities, counties, or states. Homophily is likely to play an important role in these disparities by determining whether STIs stay concentrated in higher prevalence communities or whether there are “bridge” ties that allow disease to spread across social and geographic boundaries.<sup>2</sup> Although the Add Health data will not allow me to directly examine disease outcomes, results from this analysis will add to our understanding of how local demographic and social contexts shape features of sexual networks (i.e., homophily and network size) that are likely to facilitate the spread of disease across racial-ethnic, class, and geographic boundaries.

## *II. Hypotheses*

It has long been recognized that geographic proximity fosters social ties, and people in integrated settings who are exposed to more diverse populations tend to have more cross-group ties.<sup>3</sup> These observations lead to my **first hypothesis**: individuals in communities with many potential partners who are dissimilar to them, and relatively few potential partners who are similar to them will be more likely to have an interracial and/or interclass romantic/sexual partner.

On the other hand, sexual and romantic partnerships are one of the most intimate types of social relationships. Survey data show that, while many people approve of cross-group friendships, significantly fewer people approve of cross-group (e.g., interracial) romantic relationships and

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<sup>2</sup> For a general discussion see: Laumann, Edward O., John H. Gagnon, Robert T. Michael, Stuart Michaels. (1994) *The Social Organization of Sexuality: Sexual Practices in the United States*. Chicago: University of Chicago Press

<sup>3</sup> Blau, M. Peter. (1977) “A Macrosociological Theory of Social Structure.” *American Journal of Sociology*. 83(1): 26-54

marriage.<sup>4</sup> Preferences for partners of the same race and/or class may be strong enough that many people will “work around” integration and local diversity. Examples of “working around” integration/local diversity are: (i) picking a partner who differs on one dimension (e.g., class) in order to maintain homophily on another dimensions (e.g., race), (ii) finding partners who are homophilous in terms of race and/or class, but are outside of local community (e.g., live far away, go to another school), and finally (iii) simply having few/no partners. These possibilities lead to the **second hypothesis**: given the intimacy of sexual/romantic relationships, individuals in communities with many potential partners who are dissimilar to them, and relatively fewer potential partners who are similar to them may “work around” integration. It should be noted that hypotheses one and two are not necessarily contradictory. Greater integration may foster both more cross-group ties and more efforts to “work around” integration to maintain homophily—people may respond differently.

### *III. Data and Models*

Data for this analysis will come from Waves I, II, and III of the Add Health Survey. The Add Health is a longitudinal study of a school-based probability sample.<sup>5</sup> The Add Health data provides rich information about local demographics and social contexts. In Waves I and II, the respondents are mostly high school student and the population compositions of schools and surrounding communities will be the main predictors of interest. In Wave III, most of the respondents have completed high school (they are between ages 18 and 26) and the composition of local residential areas will be the main predictors of interest. In addition to rich contextual data, the Add Health also collected information about respondents’ recent romantic and sexual partners. These relationship data allow me to assess the number of recent partners and relationship homophily. In terms of homophily, I will be able to assess: (i) racial-ethnic homophily in all three

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<sup>4</sup> D. George, Yancey G. (2004) “Taking Stock of America's Attitudes on Cultural Diversity: An Analysis of Public Deliberation on Multiculturalism, Assimilation and Intermarriage.” *Journal of Comparative Family Studies*. 35

<sup>5</sup> For more information see <http://www.cpc.unc.edu/addhealth>

waves; (ii) geographic/spatial homophily in all three waves (waves I and II this is determined by whether the partner goes to the same school as the respondent, in wave III this is determined by the respondent's report of travel time to the partner's home); and (iii) class homophily measured as the similarity of the partner's and respondent's education levels in wave III (unfortunately, there are no indicators of the partners' class backgrounds in waves I and II).

For most of the analysis, the data will be arranged as a relationship-level file and I will use the following multinomial model

$$Y_{ij} = a_{ij} + X1_j + X2_j + X3_{ij} + X4_j + e$$

where  $i$  indicates a given respondent,  $r$  indicates a given relationship, and  $j$  indicates a given school (in waves I and II) or a given local residential community (in wave III).  $X1_j$  refers to the number of opposite sex students in the school/neighborhood who are *similar* to the respondent in terms of race-ethnicity (in waves I and II) or race-ethnicity and education (in wave III).  $X2_j$  refers to the number of opposite sex students in the school/neighborhood who are *different* from the respondent in terms of race-ethnicity (in waves I and II) or race-ethnicity and education (in wave III).  $X3_{ij}$  refers to a series of controls for the respondent's characteristics (e.g., age/grade, family income, etc).  $X4_j$  refers to a series of controls for the school and local residential area (e.g., the average family income in the school/neighborhood, the composition of the school catchment area for waves I and II, etc).  $Y_{ij}$  will be a categorical variable indicating the various combinations of the partner's characteristics relative to the respondents (e.g., partner of same race and education and in local community, partner of same race but different education and in local community, partner of same race and education but lives far away, etc). The analysis will also include another similar model for which the data will be arranged at the respondent-level and  $Y_{ij}$  will be the respondent's total number of partners (i.e., network size).