Assimilation, transnationalism and the structure of migrant networks: New data and theory

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Extended Abstract

The role of social networks in the experience of migration remains undertheorized. While networks linking would-be migrants in origin areas to those who have already migrated are thought important because they channel information about potential opportunities and pitfalls, as well as resources to ease the process of migration (Bastida 2001; Coleman 1988, 1990; Massey et al. 1993; Palloni et al. 2001), attention to the persistence of such networks long after migration occurs has been limited. Further, while the links between would-be migrants in origin areas are known to augment direct links to those in the destination because they condition community culture and perceptions of the benefits of migration (Alarcón 1992; Hugo 1981a; Massey 1990; Massey 1999; Massey and Espinosa 1997; Massey et al. 1994), theory and research about the structure of relations in areas of migrant settlement are generally lacking (except see Hagan 1998).

Such neglect is unfortunate on several fronts. First, the persistence of ties between origin and destination areas is a key mechanism by which networks are thought to induce out-migration. By not examining the maintenance of such ties, scholars relegate social network influences on migration to a black box (Krissman 2005). Second, opportunities for employment at destination are thought to provide much of the motivation to migrate, and it is well known that social networks can influence such opportunities. Given this, it is surprising that the structure of social relations between migrants in destination areas

has not been investigated. Third, a century-long concern with assimilation has argued for the importance of contact and association between migrants and residents of destination areas, while a related but more recent concern with transnationalism has hypothesized that first-generation migrants inhabit two-worlds, bridging origin and destination areas. In examinations of such theories, migrants' cultural, political and economic involvement in both origin and destination areas have been explored, but knowledge of their social involvement through communication with affiliates remains limited to a few qualitative reports.

This paper makes first-steps toward a more mechanistic and less opaque theory of networks and the entire migration experience. Building from prior literature, it proposes, then tests, a number of falsifiable hypotheses related to the structure of migrant networks. An innovative and recently collected network sampling study design that surveys migrants in the Raleigh-Durham-Chapel Hill area of North Carolina and Houston, Texas and non-migrants and returned migrants in Guanajuato, Mexico allows for such tests. Indeed, the direct measurement of migrant networks is a key contribution of this study since most analyses of migration have utilized proxy measures. In contrast to the typical practice, the Network Survey of Immigration and Transnationalism (NSIT) that we use measures three aspects of social networks that are important for the migration experience: the links among migrants in the destination, the links among non-migrants in the origin, and the links between those in the destination and origin. In addition to such direct measurement, multiplex network relations were gathered, with a focus on links to kin and non-kin friends and coworkers. Further, aspects of the strength of social ties were measured by asking about communication frequency, a large improvement over the

presence/absence of tie measurements that are common in social network studies. Such high-quality network data, quantitative in record yet qualitative in detail[1], affords us the opportunity to ask substantively important and theoretically motivated questions about the role of social networks in the migration experience.

We look specifically at the following questions. What is the structure of binational migrant networks? How strong are connections between origin and destination areas? Is the strength of connections from migrants to those in the origin related to the duration of the migrants' stay in the destination, what about to the frequency or recency of trips home? Are the strength and maintenance of connections to the origin area related to migrants' positions in the destination network? Is position in the destination area network related to duration of stay or to connections to the origin? Are kin connections between migrants and those in the origin area more persistent than friend connections? How do new networks form in the destination and does such linking bring together migrants from diverse origins, or migrants and native-born residents of the destination?

In the first section of this paper, we draw on the migration literature as well as work on social networks more broadly to motivate such questions. The remainder of the paper is organized as follows. In the second section we describe the details of the NSIT including its setting and sampling design and creating the social network from its data. In the third section we present operationalizations and descriptions of our focal variables as well as outlining our analytic strategy for multivariate tests. In the fourth section we present results that explain the persistence of ties between origin and destination. We conclude by reflecting on how social networks impact all aspects of the migration

[1] The NSIT contained a large qualitative module for its N=600 respondents.

experience, not just the decision to migrate, and suggest fruitful avenues for future research.

Background and Theory

The literature on migration and social networks is asymmetrical. It has focused almost exclusively on analyzing migration at the expense of analyzing social networks. Such asymmetry is pervasive, affecting the questions being asked, the literature being cited, the measures and analytic strategies being used and the framing of results. This has not gone unnoticed: Krissman (2005: 8) argues that analyses of migration networks do not draw from the broader literature on social network analysis and mathematical sociology, but instead from "social adaptation studies that examined the effects of massive population shifts within Third World nations after World War II." This argument draws heavily on the work of Gurak and Caces (1992), which points out that the social networks and migration literature barely cites the work of mathematical sociologists, a situation which has improved with time but not been entirely remedied.

Limitations of the current literature

That the focus of the social networks and migration literature is on migration is not, in itself, a bad thing. Asymmetry in the literature does not matter if it does not impede understandings of migration some might argue, regardless of the origins of the literature and who cites whom. Unfortunately, it does matter, and nowhere is this more clear than in the measurement of so-called migrant networks. Generally, one of three approaches has been used to measure migrant networks.

The first uses areal measurement of social network proxies – e.g., a town's migration prevalence to indicate potential ties to people who have migrated (e.g., Taylor et al. 2003). Beyond its blatant inefficiencies, such an approach is problematic as networks are known to operate at multiple geographic scales in their influence on migrants. Korinek et al. (2005) found that migrants with multiple, layered ties to the destination tended to remain there, while Garip (2008) found that, while household and community level ties both increase out-migration, they operate through different pathways. Harbison (1981) found that a similar layering of ties affected migrants' motivations to leave. Finally, Entwisle, Verdery et al. (2010) found that migration prevalence effects on out-migration persisted after controls for directly measured networks were modeled, suggesting that migration prevalence captures more than just social ties. Indeed, a key concern with using areal proxies for social networks is that they likely reflect a variety of other concepts in the migration literature, including the "culture of migration" (Massey 1990) where migration becomes a step that must be taken to earn status and respect in the origin community (Ali 2007; Fitzgerald 2008).

The second approach to measuring networks in the migration literature uses household co-residence as a direct measure of network ties. While this is good in that the assumption of ties is likely more accurate than in the areal approach, it is limited in its scope – ties beyond the household have obvious potential relevance – and it risks confounding other factors with network effects. For instance, migration is thought to be motivated by desires to improve living standards (e.g., Harris and Todaro 1970), and standards of living are correlated (if not the same) within a household. Further, classic theories of migration have argued that households seek to reduce their risks (e.g., from crop-failure or local unemployment) by migration into diverse labor markets (Cain 1983, 1978; Massey et al. 1993; Stark and Lucas 1988). Again, if such household factors and strategies increase the

migration propensities of all individuals in that household, finding that a household member migrating has a significant effect on another member migrating at a later point in time may just reflect the household strategy and not say anything about social network effects.

Moving beyond the household but retaining some of the same ideas, the third way networks have been measured in the migration literature is known in the social networks literature as ego-centric measurement. This means that direct links to others are recorded for each individual but that no cross-links between individuals are tracked. In studies of migration, the focus has typically been on links to kin. Palloni, Massey et al. (2001) found that if someone's sibling migrates it increases the size of their destination network. Using historical registry data between 1829 and 1940, Bras and Neven (2007) found that women whose sisters had migrated were more likely to move from rural Belgium to the Netherlands. Constant and Massey (2002, 2003) found that guest workers in Germany with kin, especially a spouse, in origin were less likely to remain in Germany. Numerous other examples of such ego-centric measurement can be found in the literature (e.g., Curran and Rivero-Fuentes 2003; Kanaiaupuni 2000; Palloni et al. 2001). The primary strength of such ego-centric measurement is its logistical feasibility and its methodological tractability. Not only is it possible to implement ego-centric measurement on a large scale (for instance, the General Social Survey has occasionally featured ego-centric network questions), but ego-centric data are thought amenable to the simplifying assumptions of most linear models (i.e., independently and identically distributed error terms). The thought is that because dependencies between cases are not observed, complex corrections in the form of network/spatial regression models (e.g., Dow 2007) need not be employed (yet see Friedkin 1991 for a counterpoint to this line of reasoning).

However, measures and methods ought to be devised because of conceptual arguments, not the other way around. Given the focus on social networks in the migration

literature, it seems natural to ask questions about the structure of those networks. By structure, we mean both the direct links between individuals as well as the indirect links that compounding of direct links generates, and the macro-scale features that are the products of all the links together. Because the data collection methods that dominate the literature on social networks and migration have limited the data available for analysis, such questions about these structural features and their influence have rarely been asked, and, when they have been explored (e.g., Garip 2008; Entwisle et al. 2010), the focus has been on kinship and its effects on individuals' propensities to leave (and return to) their origin communities.

New theory for social networks and migration

When thinking about what questions to ask about the structure of migrant networks, a natural place to turn is to the broader literature on social networks. How can a stronger focus on social network theories help inform understandings of migration? Because what limited work has been done on the structural features of migrant networks has focused on their effects on the decision to move (or return), we take a different approach and focus on the enduring architecture of binational migrant networks – the form, change and persistence of ties to, from, and between migrants and non-migrants. Though we focus only on the architecture of such ties, as stated in the introduction, there are clear links from the shape and evolution of migrant networks to other processes of interest to migration scholars (e.g., the decision to migrate, assimilation, transnationalism, and the decision to return home). We now outline four new theoretical directions and testable hypotheses built from the broader literature on social networks and applied directly to issues of migration.

Because this is an extended abstract and not a complete paper, we only include an example of the types of literature we will build on to answer the questions proposed in the introduction.

Kin vs. non-kin ties.

One of the most puzzlingly undertheorized issues in the social networks literature is the relative importance of kin vs. non-kin connections. Kin ties are thought important as archetypical "strong ties" (Granovetter 1973). Social norms surrounding kinship categories and the idea that kin ties channel socially upheld obligations has given them prominence in the literatures on social capital (Portes 1998) and in theories of exchange (cf. Emerson 1976; Cook and Whitmeyer 1992). Related to migration, obligations to kin are clearly seen in the sending home of remittances (Knodel et al. 2000; Taylor 1999; Van Wey 2004), and some empirical work has found that perceptions of obligation induce migrants to leave home and earn money for their families (de Jong 2000; de Jong et al. 1996). In a related vein, kinship groups have consistently been found to be the primary forum in which resources are shared, a fact which applies to developing (e.g., VanWey 2004) and developed countries (e.g., Grundy 2006) alike. Obligations and resource sharing are not the only reasons kinship is important, however, because they are also known to dominate peoples' information sharing circles. In the United States, all but the most highly educated social strata have more kin than non-kin in their circles of close confidants (McPherson, *et al.* 2006: 369) and similar findings can be seen around the world: for instance, in Kenya (Kohler, Behrman, and Watkins 2001), Mexico (Massey 1990), and Thailand (Entwisle *et al.* 1996). The theoretical importance of kin ties has been supported in a number of diverse empirical contexts: for employment and economic prospects (Grieco 1987; Zimmer and Aldrich 1987), fertility control (Coale 1973; Sandberg 2005), worldviews (Vaisey and Lizardo 2010; Fowler and Christakis 2008), revolutions in (Padgett and Ansell 1993), and health and well-being (Christakis and Fowler 2008; Smith and Christakis 2008).

Though kin ties are thought important, non-kin ties have received much of the theoretical attention of social network analysis, particularly in analyses of American social life. Such ties – made through educational institutions, residential proximity, work, church attendance or other voluntary group membership, and, recently, online forums – have been the focus of most high-profile studies of social networks. For instance, Putnam (2000) considered declining voluntary group membership and Granovetter (1973) looked at informal contacts. Other high-profile studies have typically, and without much explanation for why, attempted to control away the influence of kinship on their findings (e.g., McPherson et al. 2006; Christakis and Fowler 2008), which suggests that, in the minds of many, networks based on voluntary affiliation (rather than the somewhat less voluntary affiliation of kin) are somehow more interesting or important. Why have non-kin received such attention and prominence? Perhaps because their number is potentially endless compared to the well-defined and generally limited opportunities for kinship relations. A more theoretically grounded reason is that non-kin have the potential to be weak ties, which are generally thought to matter more than strong ties in their influence on behavior because they supply non-redundant information (Granovetter 1973; Friedkin 1982).

In the context of migration, what expectations can be made about ties to kin vs. non-kin? A clear one is that **strong, kin-based ties to origin will be more likely to persist long after migration has occurred than weaker, non-kin ties**. This is an important question, related to and beyond the migration literature. Centola and Macy (2007) argue that the "strength of weak ties" argument is overgeneralized, that there are numerous instances where strong ties may be more important than weak ties because they reinforce information, which is sometimes necessary to motivate human behavior (Centola 2010). They disaggregate the concept of tie "strength" into structural – whether it links close or distant parts of the network – and relational – whether it is highly vested and valued by its owners – aspects. Such

disaggregation is important, but its full theoretical impact has been limited by a locally constrained and aspatial view of social life.

In a world where communication between spatially distant people is not only possible but simple, strong ties that bridge distant parts of the world (and are therefore structurally long) are likely to be especially important for the diffusion of information. Migration scholars have already found this (Lindstrom and Munoz-Franco 2005; Wilson 1998). Indeed, in macroscopic terms, the ties that migrants retain to their origin areas that can persist over time may be some of the most important features of modern life.

Data

The Network Survey of Immigration and Transnationalism (NSIT) is a bi-national survey (N=600) of a transnational immigrant community in North Carolina, Houston, and Guanajuato, Mexico. It is ideally suited to the task of analyzing the structure of migrant networks because of its extensive survey questions about social network affiliations. In addition to direct measurement of migrant networks, including tracking the cross-links between nominated but unsampled individuals, the NSIT also collected detailed information about the frequency of contact and relationship type between individuals as well as a large number of substantively interesting questions related to migration and employment history, health, cultural perceptions and worldviews, and assimilation. The sampling universe is migrants and non-migrants from a mid-sized town (with a population of just under 30,000) in Mexico who have migrated to either the Raleigh-Durham-Chapel Hill area of North Carolina or Houston, Texas or who have not migrated from (or returned to) the origin.

Setting

North Carolina

North Carolina is a new destination area for Mexican migrants (Durand et al. 2005). Indeed, its migrant population is one of the fastest growing in the country - between the 1990 and 2000 censuses Mexcians increased from 1.16% of the state population to 4.7% (Griffith 2005: 56), and by 2004, 7% of the state's population was Hispanic (Kasarda and Johnson 2006). Many of these Hispanics (38%) migrated directly from abroad, while the plurality (40%) came from elsewhere in the United States. Some have linked this growth to restructuring in the United States and Mexican ecnoomies (e.g., Riosmena and Massey 2010). The vast majority of migrants to North Carolina work in the construction industry or food processing (Pew Latino Center 2007), though in the Raleigh-Durham-Chapel Hill area which we study, construction is dominant (Chavez, Mouw and Hagan 2010). North Carolina has historically been more accepting of immigrants than neighboring South-Eastern states (Griffith 2005), though undocumented migrants still face extreme challenges and the current climate toward immigration is rather hostile. While labor migration dominates, there is also a substantial migrant community in the area with many individuals having families who have migrated from Mexico. Many in North Carolina, both working adults and their families, are undocumented (Passel 2005).

The data collected in North Carolina focuses on a small community in the Raleigh-Durham-Chapel Hill area that originated from Guanajuato, Mexico. Estimates from community leaders and ethnographic fieldwork with this community suggest that its

total size is at most 200 individuals. Our sample contains interviews with about 150 of these people. It was collected in the Summer of 2010.

Before answering substantive questions, migrants were shown a picture of a simple social network and the purpose of social network analysis was explained to them. After assuring participants that we were not interested in their immigration status or that of their friends and the measures that would be taken to ensure complete confidentiality, we asked them to think about any friends or acquaintances over the age of 18 who were living in the area. We then asked them to list the first four letters (to help protect confidentiality) of the first and last names of these friends and acquaintances, as well as the person's occupation, sex, approximate age, whether they had children living in the area, their place of origin, how many years they had known the person, and how frequently (daily, weekly, monthly, yearly or less) they communicate with him or her.

We repeated similar sets of questions for family members in the area, friends and family who had previously lived in the area but had since returned to Mexico, and family and friends in Mexico who had not previously been nominated but who lived in the community of origin. Respondents were given room to provide information on up to 10 friends and 5 family members living in the destination community, up to 5 return migrants, and up to 3 each of family and friends who resided in the community of origin. The total number of nominations possible per respondent who was sampled in North Carolina was thus 26. Of course, because nominations from other sampled individuals were cross-matched as described below, each sampled individual had the possibility of being nominated nearly countless times (up to the sample size of N=600).

Houston, Texas

In contrast to North Carolina, Texas has long been a receiving area in terms of Mexican migration (Massey and Capoferro 2008). Houston is an especially popular destination. It was included in our survey because it represents a more urban and more traditional area for Mexican migration with a much larger Hispanic community and closer economic, political and geographic proximity to Mexico. The inclusion of Houston allows us to compare the results obtained in North Carolina with those that might be obtained in more traditional migrant-receiving areas, those where the community is likely older and more embedded. The sample design in Houston followed the approach used in North Carolina.

Guanajuato, Mexico

Most of the Mexican migration to the United States over the past century has originated from the West-Central region of Mexico, including Guanajuato, where our origin-area study site is located (Durand et al. 2001). We chose to sample migrants from a mid-sized town of about 30,000 in Mexico for two reasons: to provide a comparison with migrants in the destination and to examine the social networks linking members of that community to each other, and to former members who had migrated to the United States. The details of the network measures of those sampled in Mexico differ slightly from the approach used for the North Carolina and Houston modules and are described in the next section.

Sampling design

The survey was collected in two steps. First, a snowball sample of migrants in the destination community in North Carolina was conducted, starting with 10 seeds. As

discussed in Chavez, Mouw, Edelbute, and Verdery (2010), we undertook several measures to protect the privacy and gain the trust of community members in the U.S. and Mexico while conducting the survey. Most importantly, we trained community members to collect the data and assist with the referral process to new interviews, which was critical for the diffusion of information about the survey and the high response rate that we obtained (85% in the U.S. and 97% in Mexico).

After a month of data collection in North Carolina, we randomly selected 17 friends and family nominations in Mexico from the list of non-migrants (including returned migrants) who were nominated as friends and/or relatives from our N.C. sample as seeds for the second stage of sampling in Guanajuato, Mexico. For each of these initial seeds, we sampled four levels deep into their social network using a branching tree-structure to organize the subsequent waves of sampling: we sampled 2 friends and 2 relatives from the seed person, then 1 friend and 1 relative from each of the stage two respondents, then 1 friend or relative from each of the stage 3 respondents, for a total of 21 respondents from the extended social network of each seed. In addition, we attempted to sample all returned migrants who were mentioned in the N.C. sample that we could locate.

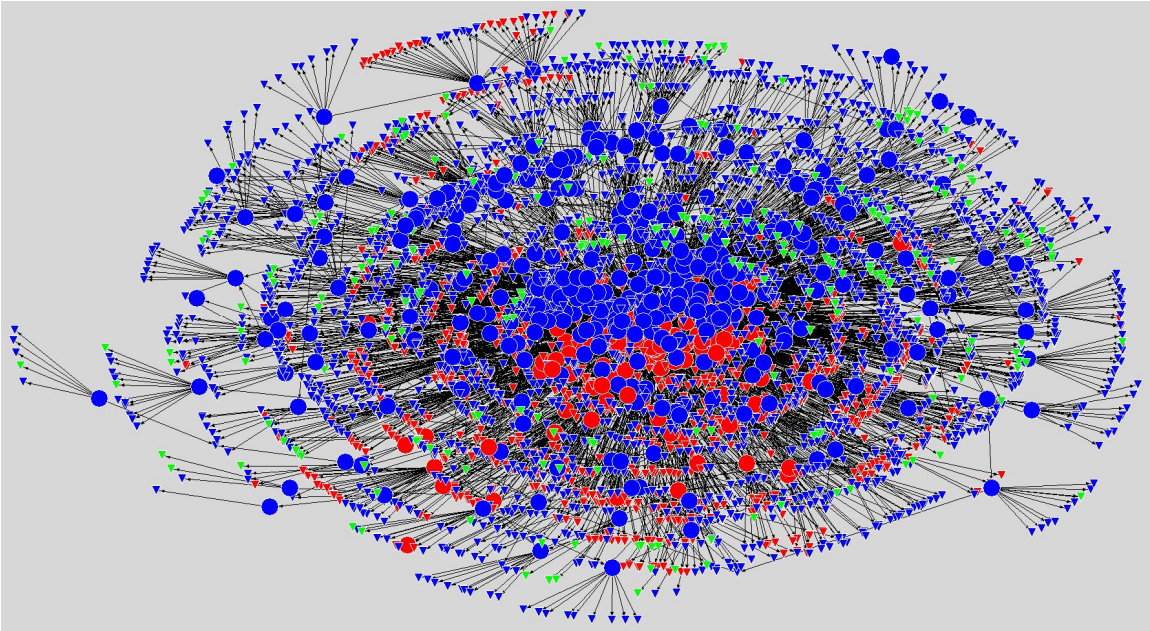
Creating the network

The network component of the NSIT survey consists of information on the first four letters of the first and last name, age, gender, and other demographic characteristics of friends and relatives in the destination and origin communities. We wrote an algorithm in Stata that matches…[add more]

Measures and Descriptive Results

The social network that was created from the NSIT, the network that we will subsequently use to answer our research questions, is shown in Figure 1. As can be seen, people in all places of focus appear. Indeed, among surveys of migration with a social network focus, and, even among network surveys more generally (cf. Marsden 1990), the number of nominations per respondent is very high. This data will be used to analyze our research questions described above.

Figure 1. The binational network of sampled and nominated individuals in the NSIT.



Notes: Red nodes are located in North Carolina, green nodes are located in Houston, and blue nodes are located in Mexico. Large circles indicate sampled individuals, small triangles show nominated but unsampled individuals.

Selected References

Griffith, D. C. 2005 "Rural Industry and Mexican Immigration and Settlement in North Carolina" In New Destinations: Mexican Immigration in the United States. ed. V. Zúñiga and R. Hernández-León. New York: Russell Sage Foundation. Pp. 50-75.

Riosmena, Fernando and Douglas S. Massey. 2010. "Pathways to El Norte: Origins, Destinatons and Characteristics of Mexican Migrants to the United States". Working Paper, Population Program, Institute of Behavioral Science, University of Colarado at Boulder.

Hagan, Jacqueline Maria. 1998. "Social Networks, Gender, and Immigrant Incorporation: Resources and Constraints." *American Sociological Review* 63: 55-67.

Passel, Jeffrey S. 2005. "Estimates of the Size and Characteristics of the Undocumented Population". Research Report, Pew Hispanic Center.