Do people mix at mixers?
Structure, Homophily and the Pattern of Encounter at a Business Networking Party

Forthcoming in Administrative Science Quarterly

Paul Ingram
Pi17@columbia.edu
212-854-2740
712 Uris Hall
Columbia Business School
Columbia University
New York, NY
10027

Michael W. Morris
Columbia University
Columbia Business School
Columbia University
New York, NY
10027

January 9, 2007

Randall Collins, Dalton Conley, Frank Flynn, David Gibson, James Kitts, Ray Reagans, Huggy Rao, Ezra Zuckerman and colloquium participants at Columbia University, Cornell University, Emory University, New York University and the University of Pennsylvania provided helpful comments on an earlier draft of this paper. We are

grateful to Emily Amanatullah, Rachel Elwark, and Gueorgi Kossinets for research assistance. Dan Ames provided generous assistance in data collection.

Do people mix at mixers?
Structure, Homophily and the Pattern of Encounter at a Business Networking Party

Profession- and job-related social events such as mixers are viewed by organizations and individuals as incubators of interpersonal ties, as arenas in which individuals can initiate new and different contacts. Theory and evidence on network dynamics, however, suggests that such outcomes may be unlikely, because past ties constrain future contacts, and because homophily inhibits contact between different types of people. We investigate whether guests at a social mixer "mix" despite these influences. We conducted the first fine-grained analysis of the pattern of socializing dynamics at a weakly structured event, a mixer attended by about 100 business people. The results show that guests did not mix as much as might be expected in terms of new contacts. They were much more likely to encounter their pre-mixer friends, even though they overwhelmingly stated before the event that their goal was to meet new people. On the other hand, guests did mix in the sense of encountering others that were different from themselves in terms of sex, race, education and job. There was no evidence of homophily in the *average* encounter, although it did operate for some guests at some points in the mixer. We consider the implications of these results for organizations and individuals that seek network development, and for theories of network dynamics.

> The manner in which groups form and break up at parties, and conversation spins itself out, deepens, loosens, cuts itself off purely according to impulse and opportunity—that is a miniature picture of the social ideal that might be called the freedom of bondage….
>
> Georg Simmel, On Individuality and Social Forms, "Sociability"

With evidence accumulating that interpersonal networks are critical to individual career success and organizational functioning, many managers and firms are asking "how do we make connections?" One popular answer is "mixers," "receptions," or "networking parties," weakly-structured social events that bring together guests who do not all know each other and provide a context in which they can interact freely in order to strengthen existing ties or forge new ones. There is hardly a professional organization, large company, industry association, university, or business district that does not sponsor such events, and there are few managers or professional people who do not sometimes attend them. For many organizations and individuals, weakly-structured parties are the object of substantial investments of money and time[1]. The tacit assumption is that these investments payoff in terms of encounters that take place in the context of the mixer and which may extend the attendees' social networks, or reinforce existing network ties. There is, however, no systematic evidence regarding who people actually encounter at mixers, or indeed at parties of any type.

We begin the process of understanding what goes on at mixers and kindred social events by analyzing the incidence and persistence of conversations between individuals at an actual mixer. We think of these conversations as an "elemental" form of encounter, which can be contrasted with a mature relationship, such as a friendship. We do not suggest that elemental

[1] For example, a recent study estimates that the meetings, conventions, and exhibitions industry generated $122 billion in total direct spending in 2004, making it the 29th largest contributor to the gross national product, more, for example, than the pharmaceutical and medicine manufacturing industry (Krantz, 2004; of course these events include highly structured components, such as a formal presentations, in addition to weakly-structured components, such as receptions, parties or mixers). The level of social events *within* corporations, schools and other organizations may be at least as high with just one indicator being that 90% of corporate workplaces host some kind of holiday party (Shartin, 2005).

encounters are as important as mature relationships. But mature relationships must begin somewhere, so some elemental encounters, particularly those between previous strangers, are notable as the buds from which more mature relationships such as friendship may grow. And even an encounter between previous acquaintances is relevant as mature relationships may be seen as aggregations of elemental encounters (Goffman, 1961; Collins, 2004).

To investigate the pattern of encounters we hosted an after-work mixer for business executives. The guests numbered almost one hundred. They were accomplished managers, entrepreneurs, consultants and bankers, most based in a large American city, but some from other countries, and other parts of the U.S. On average, they had friendly relationships before the party with about one-third of the other guests; the rest were strangers to each other. As they mingled at the mixer we tracked their encounters using nTags—small electronic devices, worn by each guest, which registered encounters and tracked their duration. As a result, we have second-by-second data regarding contacts at the mixer, which we use to build a dynamic network that captures encounters throughout the whole event.

Popular usage suggests two types of mixing that may take place at a party like the one we hosted. First, guests may mix with people they did not know, or did not know well before the event. Second, the event may present guests with the opportunity to mix with people who are different from themselves on demographic factors, life experiences, or other characteristics. The extant literature on network dynamics suggests that there are barriers to both types of mixing. Meeting new people may be inhibited by the tendency for network structures to follow path dependence, where subsequent ties depend on information that flows through earlier ones (e.g., Van De Bunt et al., 1999; Gulati and Gargiulo, 1999). Meeting different types of people may be inhibited by homophily in networks, the tendency for attraction between similar people (e.g.,

Ibarra, 1993; Brass, et al., 2004). Against this background of past research the question "do people mix at mixers?" looms large.

We examine the pattern of encounters at the mixer using two dynamic analyses at the dyadic level. One, which we refer to as the conversational encounter analysis, uses event-history methods to predict the likelihood at any moment that two guests will come together to converse. The other, which we refer to as the conversational engagement analysis, uses event-history methods to examine how long a given conversation will continue. While our unit of analysis is the dyad, we do consider the influence of larger groups on the likelihood that two individuals embedded within them will encounter each other and maintain an engagement.

For mixing in the sense of meeting new people, the results are discouraging. We find that past relationships have a heavy influence on who encounters whom at the mixer, and how long they engage with each other. Our guests were much more likely to encounter and engage with their pre-mixer friends, *even though most said that their goals for the event were to meet new people*. On the other hand, they were just as likely to encounter and engage with others different from themselves in terms of race, sex, industry, socio-economic class and physical attractiveness as they were those similar to themselves on those dimensions. There was *no overall* tendency towards dyadic homophily at the mixer party although dyadic homophily did operate at some times for some guests, as we will explain. Beyond the dyad, we did discover an interesting phenomenon that we call "associative homophily" where guests were more likely to join and continue engagement with a group as long as it contained at least one other person of the same race as them.

These results are of obvious significance for understanding the increasingly important institution of "the mixer" and helping organizations and individuals meet their network development goals. The results are also provocative for theories of network dynamics. In terms

of arguments that past networks set the path for future network development, our results seem surprising in terms of *how much* they reinforce past findings. Evidence that networks are path dependent has come from analyses of mature relations such as friendships where the information and affect embedded in past relations would seem much more important than at a mixer party. Our results therefore suggest that past ties may be even more constraining on an actor's capacity to develop new ties than previously understood, channeling the path of a network even against the intentions of the actor.

In terms of homophily our results are perhaps even more surprising. Although the average encounter at the mixer was free of the influence of homophily, we do not interpret this as being in conflict with the substantial body of evidence that mature relationships are more common between similar actors. Instead, we see our results as informative as to how homophily emerges as relationships go from first encounter to maturity. We explain in the discussion section that even if there is no (or little) tendency for homophily in unstructured encounters, homophily may exist in mature relations because many contexts for encounter *are* structured to bring similar people together and because similarity may be more important in mature relationships than in mixer encounters. Our finding of associative homophily for race may also help explain the differing evidence for homophily at the mixer and in mature relations. Associative homophily may make it easier for heterogeneous pairings to occur at the mixer as guests may be perceived as more attractive by potential partners because of the demographics of the groups they are currently engaged with.

Readers may wonder why we applied the literature on the network dynamics of mature relationships to illuminate what happened at our mixer, rather than comparing our mixer to other parties or contexts for elemental encounter. Unfortunately, there is almost no systematic

empirical research of encounters at parties, or in other weakly structured contexts[2]. The dearth of research on parties is stunning given their prominence in social life, and their relevance to the formation of relations which receive substantial attention from network theorists and others. This increases the importance of our study, as it becomes a starting point for needed research on mixers, and other types of parties. In our view, parties have gone unstudied in the past mainly because the measurement technology to track encounters, and the methodological tools to analyze dynamic networks were lacking. Still, research on this topic may have also been inhibited by the perception that parties are trivial. We therefore begin with a discussion of the significance of parties like the one we studied for business life, and for the formation and development of substantive relationships.

Why Study a Mixer Party?

Mixers as a source of initial social contact are intertwined with many phenomena that attract research attention. Informal discussions with our guests and a pre-mixer survey indicated that while many were attracted by the potential for an hour or two of fun, almost all were motivated by some other, more "serious" purpose. Some told us they wanted to reinforce relations with work-group mates, others that they hoped to make new friends. Still others had lobbied the Executive MBA program in which they were students for mixers like the one we studied by claiming that networking with the other high-fliers was key to the success of the program, as the source of jobs and support for entrepreneurial ventures.

[2] The notable exception is the "sociability project" led by David Reisman at the University of Chicago (e.g., Reisman, Potter and Watson, 1960a, 1960b; Watson and Potter, 1962; Reisman and Watson, 1964), but that project did not analyze who met whom at parties, instead focusing on the content and pattern of conversations. It is more a predecessor of contemporary conversation analysis than it is of our study, although it did generate some general observations about parties which inform our arguments and analysis. Readers sometimes also point to the work of Robert Bales as also preceding us in the analysis of interaction at parties. Bales' work examined interaction between individuals based on fixed seating arrangements in small groups, more akin to dinner parties than cocktail parties, and Bales himself distinguishes between the types of gatherings he studied and cocktail parties (Bales, et al. 1951).

The point is that our party, like any professional mixer, was not *all* fun and games. Parties are forums for initiating acquaintanceships, cementing friendships, and introducing others and are therefore paths to more substantive goals. Parties may also be representative of other contexts of first encounter. It is because parties are archetypes of weakly structured interaction that Simmel called them "a social type characteristic of modern society (Wolff, 1950: 111)." Parties, therefore, may be worthy targets of social scientific analyses because they show us the modern or postmodern future of social life.

Collins (2004; Chapter 4) presents an even stronger case for the significance of elemental encounters, claiming not just that they *lead to* more mature relationships, but that they *constitute* those relations. He argues that micro encounters aggregate into networks and markets of interactions. Network theorists lend credence to this view by gauging the strength of a network contact by measuring the frequency of interaction. It is common practice, for example, for network theorists to ask how often a respondent interacts with a contact (e.g., Burt, 1992: 122; Reagans and McEvily, 2003). Typical advice for networkers seeking to build relations is to "increase the frequency of interaction" (Baker, 1994: 217).

Beyond whatever significance mixer encounters may have in their own right, they also provide a particularly appealing context to study the simultaneous influence of social structure and homophily on encounters. The advantage of a mixer for this purpose is that with the tools we employ it is possible to effectively capture the social structural opportunities for contact, which amount to the network of who knew whom before the mixer, and the evolving network of who has met at the mixer. In contrast, the pre-existing network structure for other relationships is often invisible and correlated with characteristics of actors that may be the bases for homophilous attraction. The need for dynamic analyses to separate these influences looms as

one of the most pressing in the analysis of homophily (McPherson, Smith-Lovin and Cook, 2001).

The Influence of Pre-Existing Network Structure on Encounter and Engagement

Researchers have identified two structural factors as driving forces of network dynamics: previous direct contacts between two actors, and indirect contacts that flow through third parties connected to both. Previous direct contacts are viewed as a source of information about and trust in a potential interaction partner, as an indicator of investment and therefore commitment to them, as well as positive affect towards them (e.g., Rusbult and Buunk, 1993; Uzzi, 1996; Van De Bunt et al., 1999). Indirect contacts through mutual ties to third parties form a bridge along which information may travel, and also provide social closure, which moderates cognitive strain and facilitates social control and therefore trust (Van De Bunt et al., 1999; Gulati and Gargiulo, 1999; Jin et al., 2001). These arguments, however, have developed through analyses of more mature relationships such as friendships. We see some reasons to question whether they will apply at a mixer.

For example, while it is certain that past relationships are informative about who has positive affect for whom, individuals *claim* that they do not attend parties like the one we studied to talk to their friends. We surveyed our guests as to their goals for the mixer, and the least likely to be cited as most important (by only five percent of guests) was "To build a few close relationships/to cement the relationships I have already started." The seven more favored options were all about forming new relationships. Similarly, trust seems less important at a party, both because vulnerability to malfeasance or defection by interaction partners is small, and because invitees are sanctioned and legitimized by the host (of course, the degree varies according to the type of party, an issue we take up in the discussion).

Although the application to parties of the ideas that network dynamics depend on the history of direct and indirect ties is not trivial, we nevertheless believe it is a good place to start, not least as a way to understand the relationship between elemental and mature networks. We will therefore test the role of direct ties, that *the likelihood of encounter and engagement between two guests is greater if they were friends before the mixer,* and of indirect ties, that *the likelihood of encounter and engagement between two guests is greater the more intermediaries they have in common in the pre-mixer network*.

Our context also allows us to examine another type of indirect tie, those that emerge at the mixer by virtue of two guests having encountered the same third person, currently or earlier in the event. We will refer to the structure of a guest's prior interactions at the party as their "mixer network." Reisman et al. (1962) argue that the thirds in that circumstance broker connections between the two as an effort to build cohesion in the sociable spirit of the party, playing a type of hosting role. Gibson's (2005) analysis of network influences on conversation suggests another type of cohesion-driven mechanism. In what he refers to as "piggybacking," either of the two non-intermediaries may initiate a connection with each other to reinforce their relationship with the intermediary. These arguments, which suggest that *the likelihood of encounter and engagement between two guests is greater the more intermediaries they have in common in the mixer network*, are very different from the social control argument that lies behind the expectation of an indirect influence through the network of stronger pre-mixer ties.

Homophily as a Basis of Encounter and Engagement

Evidence from many sources indicates that interaction is more common between similar actors (McPherson, Smith-Lovin and Cook, 2001). Marriages are more likely between individuals with similar levels of education, religion, and race (Kalmijn and Flap, 2001).

Investment links are more likely between investors and investees that function in the same geographic areas, and in the same industries (Sorenson and Stuart, 2001). Friendships are more likely between people of the same races, classes, ages, and those with similar attitudes (Verbrugge, 1977; Lazarsfeld and Merton, 1954). Joint ventures are more common between organizations of similar status levels (Podolny, 1993).

There are two accounts for the gravity between similar actors. The first and most familiar is what Lazarsfeld and Merton (1954) called "value homophily", the idea that it is more rewarding to interact with others that hold similar values. Others who see things like we do are more likely to be more empathetic and to provide us with positive feedback. Whereas Lazarsfeld and Merton (1954) measured the values of their research subjects directly, subsequent researchers have taken advantage of the fact that values, attitudes and experiences correlate with individual attributes such as sex, race and education. For example, value homophily is proposed as the explanation for the tendency of organizational participants to make friends with others that are of the same race and sex as themselves, because people of the same race and sex often have similar values, attitudes and experiences (Ibbara, 1993). Given that many people attend parties in the hope of a rewarding social experience, the value homophily argument suggests they are most likely to look for these benefits at the mixer by interacting with others like themselves. Thus, we expect that *there is a greater likelihood of encounter and engagement between two guests who are similar on demographic dimensions and other characteristics that indicate common experiences.*

The second explanation, which is labeled "status homophily", reaches a kindred prediction through different mechanisms. According to this argument, interaction between similar actors is expected even if interaction partners do not prefer similarity. All that is required is a generally-recognized status ordering of the attributes on which actors in the group of

potential partners differ. If some attributes are preferable to others then competition among actors who seek high status others, yet who attract those others based on their own status, results in pairings of those sharing similar status and similar attributes (Podolny, 1993). Status homophily might work at the mixer if there was some personal attribute that is generally viewed as better in an encounter partner. A likely candidate is physical attractiveness, as good looks have been shown to make someone a more likely choice for interaction, even in same-sex dyads (e.g., Mulford et al., 1998). Note that we are not suggesting that physical attractiveness is a particularly important component of overall social status, merely that it is a generally-preferred trait in an interaction partner at the mixer. If that is true, and if there is a competition for the most preferred interaction partners, we expect that *there is a greater likelihood of encounter and engagement between two guests who are similar in terms of physical attractiveness.*

It is also worth noting that these homophily predictions are not trivial, even in the face of extensive evidence of homophily in relations such as friendship and marriage. As we have explained, studies of the structure of such relations often struggle to distinguish homophily from the constraint of previous social networks. Furthermore, some accounts of homophily emphasize its relevance for mature ties where empathy and support seem more important (e.g., Marsden, 1988; Ibarra, 1992). An alternative to the predictions is feasible (and perhaps assumed by mixer guests and organizers), that people at a party may seek interaction partners different from themselves, as an inexpensive form of exploration (Wolff, 1950). Intriguingly, Reisman et al.'s (1960a) observations lead them to challenge the very idea that people at parties enjoy interacting with others that are like them in obvious ways, arguing instead that the relevant bases of similarity are deep, and not reflected in characteristics such as race or job type.

It is often difficult to know what dimensions of similarity will drive homophily in a given context (Brass et. al 2004), but at a mixer, some dimensions seem much more likely for

encounter than engagement. This is obviously true in the instance of the potential meeting of two strangers, because many important sources of similarity will be unknown to them, because they are difficult to discern *before* the meeting. Past research cites dimensions such as sex, race, age, class, religion, education, and profession as bases of interpersonal homophily (McPherson and Smith-Lovin, 1987). Of these, only the first three are easily observable to strangers and attraction in first meetings can only be based on observable characteristics. Of course, some meetings at our mixer were between individuals who knew each other before the mixer, but for these relevant deeper similarities are already incorporated into liking relationships. These arguments lead us to expect that *homophily will be based on observable characteristics for encounters.*

Another variation on the basic expectation of homophily depends on the dynamics of the mixer. A number of arguments suggest that homophily will have more influence on early encounters than later ones. Research on networks of racial-minority managers reveals that homophily decreases over time as minorities seek the strategic benefits of attachments to representatives of majority groups (Ibarra, 1993). Another line of argument, that homophily is most likely when actors face uncertainty (Kanter, 1977; Galaskiewicz and Shatin, 1981; Ibarra, 1993), as they are likely to do in the early stages of a party, reinforces the expectation that the preference for similar others will be more important for early encounters than later ones.

The idea of a dynamic interplay between individual and social characteristics is particularly germane to parties. Countless experiments in the social identification and self-categorization theory literatures have found that even artificial groups created in the laboratory can become a salient basis of group identification so long as participants have some opportunity to interact with fellow group members (Tajfel and Turner, 1986; Hogg and Terry, 2000). At a party, opportunity to interact is complemented by a social boundary established by the invitation

(Wolff, 1950) and a sense of collective social purpose (Aldrich, 1972), further enhancing the foundation for social identification. Successful parties take on a life of their own, in the sense that the common bond of membership in the party begins, at least partly, to supersede individual characteristics. Parties, when they work, illustrate the principle that social networks and social identities are reciprocally dependent (Mehra et al., 1998); they are emergent phenomena where the social whole becomes more than the sum of its individual parts. To explore the melding effect that emerges as the party comes to life, we examine the prediction that *the influence of similarity on the likelihood that two guests encounter and engage at a mixer is greater for early encounters than for later ones*. We treat "early" and "late" in terms of the number of encounters individuals have had at the mixer, and not time at the mixer. We do this based on the logic that the identification with social collective of "the mixer" is built by social activity and not the mere passage of time.

Associative Homophily and Friendship: Groups at the Mixer

Encounters and engagements at the mixer provide an opportunity to think about the influence of homophily and friendships in social groups. Although the dyad is the foundational unit of encounter and engagement (in the sense that every conversing group can be broken down into a set of dyads), dyads at mixers are often embedded in groups of three or more. Whereas members of a dyad can only be the same or different with regard to discrete demographic categories, and they are either good friends or not good friends, when groups are considered the possibilities multiply. For example, a guest at the party (ego) may consider beginning a conversation with another guest (alter) who is currently engaged with others. Some or all of these others may be demographically similar to, or friends with ego and if they are it may positively influence alter's attractiveness to ego.

With this possibility in mind we introduce the concepts of associative homophily and associative friendship. What we mean here is that the demographic characteristics and pre-mixer friendships of those a given guest is currently engaged with ("the group") may affect the likelihood of that guest encountering and engaging others who share those demographic characteristics and/or friendships. There are a number of reasons why this might occur. To start with, there are fundamental arguments in network theory that individuals take on the attitudes and make decisions that reflect those of their friends (e.g., Erickson, 1988; Kilduff, 1992). This tendency extends to the evaluation of interaction partners (Newcomb, 1960), so a guest who sees one or more of her friends talking to another person might view that person as more attractive, and be influenced to start an encounter: *two guests at the mixer will be more likely to encounter and engage with each other if one of them is already engaged in a group that includes one or more pre-mixer friends of the other.*

Likewise with regard to demographics, some individuals may not want all of their interaction partners to be the same as them but might instead be satisfied if one or more members of an interacting group were like them (Schelling, 1978). Furthermore, according to the value-homophily argument, demographic similarity is influential as an indicator of shared values. This signal may be transferable, such that ego may conclude that if alter is related to or engaged with someone of ego's demographic category, she may share values with that person and therefore with ego. Along the same lines, alter's engagement with someone of ego's demographic category may be interpreted as a willingness or disposition of alter to engage with people like ego. These arguments suggest the following: *two guests at the mixer will be more likely to encounter and engage with each other if one of them is already engaged in a group that includes one or more individuals that shares demographic characteristics with the other.*

ANALYSIS

The Mixer and the Participants[3]

The mixer we hosted began at 7:00 PM on a Friday evening in the reception hall of a university professional education facility in a large American city. The hall offered a square-shaped party space, approximately 60' by 60', sufficiently spacious for the 97 attendees to mingle freely. In the center of the room was a large table of *hors d'oeuvres*, and on the east wall there was a table with pizza. There was a bar on the north wall, which served beer, wine and soft drinks. There were no chairs in the room. The mixer lasted for 80 minutes, during which the guests were free to speak to whomever they wanted. The invitation explained that guests would wear an electronic tag but assured them that their only task was "Act normally. Talk to whomever you want to, while enjoying food and drinks."

The invitees were working managers, current students in an Executive MBA (EMBA) program of the university that hosted the event. The invitation was extended to 261 executives (in four sections; a section is a group of about 65 who take first-year classes together), and 120 accepted the invitation. This acceptance rate was high, considering that the event took place on a Friday night and one of the invited sections was not on campus that day (and many of them lived outside of the city and even the country)[4]. Ninety-two (seventy-six percent) of those that accepted the invitation actually attended and participated in the event. There were five other participants in the mixer, guests of the inventor of the nTag technology we used to measure interaction. These five are not included as actors in the analysis below because we do not have

[3] We have produced a dynamic visualization of the mixer network, essentially an animated movie of how the network changes over the course of the mixer (Moody et al., 2005). It can be accessed at http://thelifeoftheparty.info/

[4] In supplementary analysis, we determined that invitees were no more or less likely to accept the invitation based on their demographic characteristics, or whether their pre-mixer friends had accepted. The latter result is further support for the finding in the pre-mixer survey that guests did not attend the mixer with the intention of hanging out with friends.

data on their pre-mixer networks, jobs, etc., although their encounters at the mixer are included for the purpose of calculating the mixer network and environment (e.g., the path distance between other guests). The average age of the guests was thirty three, and thirty-four percent were female.

We use four sources of data. For demographic data we relied on "face books" published by the EMBA program, which present pictures and biographical entries for each guest. We captured the pre-mixer network using an online survey administered one week before the mixer, where each guest indicated his or her relationship (negative, no relationship, positive, strongly positive) to each of the other guests. We administered a short (sixteen-item) survey, completed after the guests arrived but before they began participating in the mixer, regarding what their social networking goals were for the mixer and for the EMBA program in general. Finally, to capture the pattern of meetings at the mixer we relied on nTags, a technology originally developed in the MIT Media Lab. An nTag is a wearable device, technologically akin to a personal digital assistant, 4" X 6" in size, with a weight of six ounces.

For the mixer, the most relevant function of the nTags was their ability to register other tags that they come into contact with (two tags come into contact with each other when they face each other at a distance of less than 8', a parameter chosen through pre-testing and the experience of the nTag designer) and store those contacts in their internal memory. We used these contact records to identify encounters at the mixer, and to build a dynamic network of who was engaged with whom at each moment of the mixer. To indicate a meeting, we required two tags to be in contact with each other repeatedly over a span of at least one minute. (Again, this parameter was set based on extensive pre-testing by the designer of the nTags). With this approach, we are confident that we record only actual encounters, and not spurious proximity such as two people walking past each other, or seeking *hors d'oeuvres* simultaneously. The

nTags also had a two-line LED display that displayed a digital greeting when two people met: "Hello 'Helen', this is 'John'".

Network Structure Variables

To test the influence of the pre-mixer network on encounters and engagements, we include three variables that capture varying degrees of friendship: *pre-mixer dislike; pre-mixer like;* and *pre-mixer strong like*. Some of the guests that did not report a pre-mixer friendship had been in the same section of sixty-five students who took all classes together for a semester or more, and can therefore be expected to be aware of each other. We identified this group with the variable *pre-mixer exposure*, on the logic that their mutual awareness might make them more likely to encounter at the mixer, even if they were not friends or enemies. The omitted category indicates dyads that had no pre-mixer relationship or exposure to each other. The possibility of an indirect influence of the pre-mixer network is operationalized with a count of the *pre-mixer mutual friends* (based on friends at the mixer) of the members of the dyad. To capture opportunities for referrals and bridging based on encounters *at the mixer* we include two variables, *current mutual ties A and B* which is the number of shared third parties A and B are both currently engaged with, and *mutual ties A and B* which is a count of the number of non-current intermediaries from earlier in the mixer that the members of a dyad share. We include *no path between A and B* in case referrals and bridges occur through more extended relations. *No path* is coded one if there is no path of any length in the mixer network that connects the two guests. In preliminary analyses we examined continuous measures of the number of links between guests in the mixer network, and discovered that after distinguishing for path lengths of two (which we do with our *mutal ties* variables) the most relevant distinction was between actors

that were connected at all and those that were not (although our results are the same if we use a continuous measure of path length).

Homophily Variables

We relied on five variables to examine homophilous attraction, three observable characteristics and two less superficial characteristics that could only be discovered through conversation. Sex, race[5] and physical attractiveness were observable characteristics. The other likely basis of observable similarity, age, was not available to us, but did not vary greatly among our guests. Unobservable similarity was based on whether the participants performed the same broad job function (five categories) and whether they had both graduated from an elite institution (according to the list of the twenty-five most prestigious undergraduate institutions provided by Finkelstein, 1992). Job function is relevant in this context because others who do the same type of work are a source of information regarding career opportunities and advice. The status of the undergraduate institution has been shown to be an important predictor of success for business executives and serves as an indicator of socio-economic status (Useem and Karabel, 1986). In preliminary analysis we examined other potential bases for homophily, including industry of employment and foreign vs. native born. Neither of these affected the incidence of encounter or the persistence of engagement at the mixer.

Physical attractiveness was coded on a five-point scale based on pictures in the face books by a research assistant who was naive to the predictions. To check reliability, a second research assistant also coded the pictures; the two sets of codings were within one point of each other 98% of the time. According to Riggio et al. (1991) ratings from pictures can be used to

[5] In the analysis reported here we use six categories for race: Caucasian (75% of guests); African (2%); Latino (2%); Middle Eastern (4%); East Indian (8%); and other Asian (9%). Given the large majority of Caucasians among the guests, we conducted supplementary analysis where we collapsed all of the non-Caucasian categories into one. Results of the two category analysis are comparable to those reported below.

capture "static" attractiveness, which reflects the physiognomic qualities of beauty. At the mixer, "dynamic" attractiveness, which also involves aspects of movement and expressive behavior, would be important. We could not code dynamic attractiveness because we did not videotape the participants, but the coders' ratings from pictures correlated highly (0.75) with attractiveness ratings provided by instructors who had interacted with our participants in class for one semester, suggesting that they provide a fair representation of dynamic attractiveness as it might be experienced at the mixer.

For categorical traits, similarity is measured with indicator variables: *same sex*, *same race*, *same elite undergraduate status* and *same job function*. *Same physical attractiveness* is calculated as $4 - \text{abs}(PA_a - PA_b)$, where PA_a is the five-point physical attractiveness measure for actor a in the dyad. We will interact the similarity variables with the number of encounters members of the dyad have had so far at the mixer (*degree A + B*), to investigate the idea that homophily becomes less influential as guests accrue experience at the mixer.

Associative Homophily and Associative Friendship Variables

The associative homophily and friendship arguments suggest that encounter and engagement in a dyad are a function of the similarity/friendship between one member of a dyad and the group that is engaged with the other member of the dyad. Considering similarity/friendship between individuals and groups requires decisions on how to aggregate the relations between the individual and each member of the group. We have no *a priori* theory regarding this aggregation. We therefore applied three alternative ways of calculating the extent of similarity/friendship: (a) based on the average similarity between one dyad member and the other's group (0 if the other had no group; averaged for both members of the dyad); (b) whether there were any friends/similars of one dyad member in the other's group (2 if both members

were in a group that included similars/friends of the other; 1 if only one was, 0 otherwise); and (c) the total number of friends/similars of one dyad member in the other's group (totaled for both members of the dyad). Below we compare models that use these three methods to calculate *associative homophily* (for sex, race, attractiveness, elite UG status, and job function) and *associative friendship* (for pre-mixer like and strong like relationships).

Control Variables

Current guests at the mixer is a count of the guests at the mixer besides those in the dyad. We include this as a control for the competition for encounter partners (presumably when there are more guests, the likelihood that any two will encounter falls). *Current engagements A + B* is a count of the number of alters that the members of a dyad are currently engaged with (these need not be mutual to A and B, differentiating this variable from *current mutuals*). The idea is that if the members of a dyad are both engaged with others, this decreases the chances they will come together in the next moment. Finally, *alone* is an indicator variable which registers if one of the members of the dyad has no current engagements; this controls for the fact that encounters are more likely to be initiated by people who are currently unattached.

Method

The unit of analysis is the dyad, or pair of individuals, and we seek to estimate the likelihood that they will encounter each other (or once encountered, how long they will continue to engage) as a function of variables that capture the network structure, similarity, groups and control variables. An appropriate methodology for this problem is event-history (hazard) analysis, which allows us to estimate r(t), the instantaneous risk that two individuals at the mixer

who were not engaged at time t will encounter each other (or that two who are engaged will disengage) between t and t + Δt, calculated over Δt:

$$r(t) = \lim_{\Delta t \to 0} Pr \frac{(encounter\ t, t+\Delta t \mid not\ \ engaged\ at\ t)}{\Delta t}. \qquad (1)$$

Parametric estimates of the hazard rate require assumptions about the effect of time, which in our models is duration in the status of "not engaged" for the encounter analysis, or "engaged" for the engagement analysis. We conducted exploratory analysis to choose a functional form of duration dependence, considering a number of common models. This analysis involved (a) visual examination of the pattern of duration dependence estimated as a spline function using a piecewise exponential model; (b) log-likelihood ratio tests to differentiate between parametric models that are nested; and (c) application of the Akaike information criterion (Akaike, 1974) to differentiate between models that are not nested. This process indicated that the Weibull model was the best fit for our data, although estimates of the influence of the independent variables were consistent across a range of models (Weibull, exponential, piece-wise exponential, log-logistic, log-normal, Gamma and Gompertz). The Weibull hazard function we estimated was of the form:

$$r(t) = e^{\beta X}\, pt^{p-1}, \qquad (2)$$

where X is the vector of covariates, β the associated vector of coefficients, p the shape parameter that captures the form of the influence of duration (t) on the hazard of encounter or disengaging.

A remaining methodological concern is the non-independence of observations. This problem is common to all dyadic analyses of network structure, as the same actors enter the data in multiple dyads. We respond to the problem of non-independence by including fixed effects for every guest at the mixer (Simpson, 2001; see Reagans and McEvily, 2003 for a recent application of this approach). The main disadvantage of this approach is that it prevents us from

examining influences of stable individual differences, (e.g. physical attractiveness) in the dyad-level analyses (these would be linearly dependent with the fixed effects for the members of the dyad).[6] A kindred problem is that observations may be interdependent due to the influence of encounters at the mixer on other encounters. We see this issue as one of social influence, so we respond by directly measuring whether members of a dyad are connected through the mixer network with the variables *current mutual ties A and B*, *mutual ties A and B*, and *no path between A and B*. These variables capture whether those most likely to influence A have encountered B and vice versa (Marsden and Friedkin, 1993). Related, the variable *current engagements A + B,* as well as the associative homophily/friendship variables, capture the possible tendency of current interlocutors to encourage or discourage new encounters.

To allow the variables to change as guests join the mixer and as encounters and disengagements occur, we broke the observation for each dyad into one-minute spells and updated the variables at the beginning of each spell. In the encounter analysis there were 4574 dyads, 169980 spells, and 628 encounters. In the engagement analysis there were 628 dyadic engagements of which 547 disengaged before the end of the mixer; the dyadic engagements are split into 3985 spells. The average guest had about 14 encounters at the mixer (628 * 2 / 92).

Conversational Encounters: Who Comes Together?

Model 1 in table 1 includes control variables and the variables that capture the pre-mixer network and the structure formed by encounters at the mixer. Guests are significantly more likely to encounter others they had positive relationships with before the mixer. The likelihood was higher for dyads with strongly positive pre-mixer relationships compared to those who were

[6] Our analysis does include *similarity* in physical attactiveness to test the idea of status homophily on this dimension. This estimation is possible because similarity is a dyadic measure, not a linear function of individual attractiveness.

only positive ($\chi^2_{1df} \approx 17.28$, $p < .001$). Dyads that had a negative relationship pre-mixer and those that were exposed to each other in class are neither more nor less likely to encounter than those with no pre-mixer relationship (the omitted category). The number of friends in common in the pre-mixer network does not affect the likelihood of encounter, but there is support for our prediction that encounter in a dyad will be more likely when its members have encountered or are currently engaged with the same others at the mixer, as indicated by the positive coefficients of *mutual ties A and B* and *current mutual ties A and B*.

The magnitudes of the variables that capture the pre-mixer and mixer networks are notable. Independent variables in the Weibull model have a multiplicative effect, so the magnitude of a coefficient can be understood in terms of a multiplier of the encounter rate determined by other variables due to a change in the level of the focal variable. The coefficient in model 1 indicates that dyads with strongly positive relationships were about 223% ($e^{1.173}$-1) more likely to encounter at any point in the mixer than dyads that did not have a pre-mixer relationship. Dyads with positive relationships were 99% more likely to encounter. As for the mixer network, for every previous encounter partner that two guests at the mixer have in common, the likelihood that they will encounter increases by about 8%; for every current encounter partner they have in common the likelihood increases a whopping 400%. Doubtless, part of this effect is due to physical proximity, as guests that share a current mutual must necessarily be close to each other. In addition to these effects of the opportunity structure, there are many other structural influences on encounter that we discuss below when we take up control variables.

Model 2 adds the five similarity measures to test for static homophily; none are significant. Model 3 adds the interactions between similarity and *degree A + B* to test the dynamic homophily argument. In this model, *same sex* and *same attractiveness* have significant

effects. We dropped the interactions with degree for the other similarity variables and estimated model 4, but again, sex and attractiveness yielded the only significant results. *Same sex* has a positive coefficient, and its interaction with degree has a negative coefficient. This demonstrates the homophily dynamic we expected, that actors are initially drawn to similar others, but as they become more invested in the mixer, they become more likely to encounter different others. *Same attractiveness*, however, shows the opposite dynamic, with individuals beginning the mixer by encountering others of different levels of attractiveness than themselves, and as the mixer progresses becoming more likely to encounter others of similar levels of attractiveness. Figure 1 illustrates the pattern by showing the effect of a one point increase in same sex and same attractiveness over the observed range of *degree A + B*, using coefficients from model 4.

The dynamic of increasing attractiveness homophily combined with decreasing sex homophily raises the question of whether the guests shifted their efforts towards finding romantic pairings as the mixer progressed. We therefore estimated models 5 and 6, which are replications of model 4 on different sets of dyads. Model 5 includes only dyads with two men. It demonstrates the same attractiveness dynamic as model 4. Model 6 includes the rest of the dyads, those with at least one woman. In that model, there is no static or dynamic effect of similar attractiveness (although the coefficients are in the same directions as models 4 and 5). Given that homophily on physical attractiveness occurs in male-male dyads, it seems unlikely to be due to the pursuit of romantic partners. We offer an explanation for this dynamic effect in the discussion. Another notable result in model 5 is the significant and positive coefficient for *same race*, suggesting that there is race-based homophily in dyads that contain only men. This finding is consistent with arguments by Mehra et al. (1998) that identity and homophily will be based more strongly on distinct demographic characteristics. So, among men, who form the sex majority, race may loom larger in considerations of similarity, particularly for race minorities.

Model 7 further explores the surprisingly weak findings regarding homophily, as it includes only those dyads that did not report a positive or negative pre-mixer relationship. The purpose in presenting this model is to examine the possibility that homophily at the mixer may be masked by the tendency for friends to meet friends. As model 7 shows, however, the homophily effects are no stronger when only dyads without a pre-mixer relationship are included. Supplementary models (not shown) that used all of the dyads but excluded variables that indicate pre-mixer friendship also failed to show homophily in the average mixer encounter.

The non-significance in all cases of non-observable similarities, undergraduate status and job function, fits our argument that only observable similarities should affect the chances of two people coming together at the mixer. All of the observable characteristics (sex, race, attractiveness) where the basis for encounter homophily at some times for some dyads, while none of the non-observable characteristics were.

The effects of the control variables are generally consistent across models. The likelihood of a given pair of guests coming together falls with the number of encounters the members of the dyad have had previously at the mixer (*degree A + B*), suggesting a deceleration of encounter activity as encounters accumulate, perhaps due to a process of social satiation. Secondly, the likelihood of two guests encountering each other is negatively related to the overall count of people at the mixer, and to the number of alters with whom the two guests are currently engaged at a given point in the mixer, as both of these represent competition for encounter. The fact that individuals with no path between them in the mixer network are less likely to encounter each other is more support for our expectation that indirect contact between individuals brings them together at the mixer. Finally, the shape parameter of the Weibull model indicates that the likelihood of a pair of guests encountering each other increases the longer they have been at the mixer without having encountered each other.

Table 2 examines the influence of groups through associative homophily and associative friendship. All of the models in table 2 use model 4 from table 1 as their basis and add to it the associative homophily and associative friendship variables. (For parsimony, the other variables from model 4 are not shown, but their coefficients are not substantitively changed by the inclusion of the associative variables). The three models explore the three alternative methods for aggregating similarity/friendship between one member of a dyad and the group of the other member. Their results are comparable, but model 9, which considers whether A's group has *any* similars/friends of B and vice-versa has the best fit as indicated by the log-likelihood, so we'll focus on the results of that model. The idea of associative homophily is supported by the fact that an encounter is more likely when one a member of a dyad is engaged in a group that includes someone of the same sex or race as the other member. There is similar support for associative friendship. If A's group includes someone B has a liking relationship with before the mixer, B is more likely to encounter A (and thus join the group). The effect is even stronger if A's group includes someone with whom B had a strong-like pre-mixer relationship.

Conversational Engagement: Who Stays Together?

Table 3 presents Weibull models of conversational engagement—the coefficients indicate the effect of a variable on the likelihood of *disengaging* from a conversation, so engagement between two interactors is indicated by negative coefficients. Model 11 includes structural opportunity variables and controls. Interestingly, variables that capture the mixer trajectory of a pair—*degree A + B, current mutual ties A and B* and *mutual ties A and B*—do not affect the duration of their conversation. Apparently once two people meet, it is their characteristics and pre-mixer relationship, and not the trajectory of their recent experience at the mixer, which predict whether their conversation persists. People who had strong pre-mixer liking relationships

conversed for longer when they engaged each other at the mixer. More surprising, people who disliked each other before the mixer also conversed for longer than otherwise expected, presumably for different reasons (e.g., to argue, or to sort out their disagreement, which may be easier in the mixed social/professional context of the mixer [Trice and Beyer, 1984]). With regard to the control variables, we find that a pair engages longer when there are more people at the mixer. Again, this is somewhat surprising, because others at the mixer are alternatives to current conversation partners. One explanation is that there is a very high correlation between the number of others at the mixer and the time the mixer has been ongoing. This result may therefore indicate that engagements become longer in the later stages of the mixer. It may also be that crowded parties create dyadic intimacy. Additionally, we find that an engagement is shorter if the number of current engagements of the participants is higher. In other words, conversations set in groups disengage more easily than those in isolated dyads. Finally, the shape parameter of the Weibull model indicates that conversations become more likely to end the longer they have persisted.

Model 12 adds the similarity variables and their interactions with degree. None are significant so in model 13 we drop the interactions. Here, only same job function is significant and its coefficient is positive. This is the opposite of what we predicted: individuals sharing the same job function have on average briefer engagements.

Given the non-findings regarding homophily in engagements, we wondered whether dyadic similarity affected the length of engagements *for anyone* at the mixer. To find out we estimated two more models that examined conversational duration for subsets of the dyads. Specifically, we examined the role of the guests' goals, because the tendency to engage with similar others may depend on what one wants to get from a mixer. For this, we used responses to our pre-mixer goal survey, specifically two items tapping homophilic goals: Whether they

intended at the mixer (1) to seek out people with whom they have something in common; and (2) to form relationships with people that will be easy to maintain.

Recall that our fixed-effects specification prohibits us from including covariates that are aggregates of individual characteristics. We can, however, restrict our analysis to subsets of the data based on those characteristics and this is what we do in models 14 and 15. Model 14 examines engagement only for dyads where the shared endorsement of the "things in common" item was very high[7]. In these dyads, we do see evidence of homophily, as people of the same race and attractiveness have longer engagements. Model 15 examines dyads with high shared endorsement of the "easy to maintain relations" item. Again, we see some homophily, as same undergraduate status and same job function causes these dyads to have longer engagements (although in this set of dyads, individuals that are more similar in physical attractiveness have shorter engagements; perhaps because status mismatches are "easy to maintain" because of the asymmetric dependence).

Finally, model 16 examines associative homophily and associative friendship for engagement duration. For parsimony, we present only one set of results, using association calculated based on whether A's group contains anyone who is similar to/a friend of B (and vice versa). As in the encounter analysis, association calculated in this way was a better fit to the data than the two alternatives. Model 16 shows support for associative friendship, although only for strong like pre-mixer relationships. The model also shows evidence of associative homophily for race and attractiveness, as engagements are longer as long as one member of the dyad is engaged with a group that includes one member who shares a race or level of attractiveness with the other

[7] By high shared endorsement of a goal we mean dyads for which there was an emphasis on the goal that was shared by both members of the dyad (because a continuing engagement requires the willingness of both members). We operationalized very high shared endorsement as dyads where (a) both members were above the median on the relevant goal variable; or (b) one member had the maximum response for that goal and the other was at the median. Model 10 includes the 12% of all dyads that satisfied these criteria for "things in common" and model 11 includes the 15% that satisfied the criteria for "easy to maintain relations."

member of the dyad. Results for sex and UG status are the opposite of those predicted by the associative homophily argument. Supplementary analysis (not shown) indicates that the result for sex actually represents a move to mixed-sex engagements as the party progresses, a result which is comparable to the tendency towards mixed-sex encounters demonstrated in figure 1. Overall, the results regarding associative homophily in both encounter and engagement suggest that the phenomenon is particularly important with regard to race, which was significant in both analyses. Apparently individuals at our mixer were willing to encounter and engage with others of a different race than them, but avoided groups where everyone was of a different race than them.

DISCUSSION

Do people mix at mixers? The answer is no (or not very much) in terms of meeting new people, and yes, with a caveat, in terms of meeting people different from themselves. Pre-existing network structure operated at the mixer much (although not entirely) as it does in more mature relations. That is, encounters and engagement were much more likely with pre-mixer friends than with strangers. On the other hand, *average* tendencies to homophily that are often apparent in mature relations were absent at the mixer, so guests did encounter and engage with others who were different from themselves. The caveat is that guests avoided conversing groups that included *no one else* of their race.

Our two basic findings--the heavy influence of structure and the light influence of homophily--run counter to conventional wisdom. Weakly structured events, such as mixers or parties, are supposed to enable interactions determined by pull of attraction rather than the push of prior structure. Both findings are also notable for theories of network dynamics. We consider the implications of each in detail.

Structural Influences on Encounter and Engagement

Mixer parties are supposed to free their guests from the constraints of pre-existing social structure so they can approach strangers and make new connections. Nevertheless, our results show that guests at a mixer tend to spend the time talking to the few other guests whom they already know well. For example, people are much more likely to converse with another at the mixer if they had a positive pre-mixer relationship. While reproduction of positive ties in this way makes sense in relationships that depend heavily on affect and trust, it is counter to our expectations for behavior at a business mixer. It is also counter to the expressed intentions of 95% percent of our guests, who emphasized before the mixer a goal of building new ties rather than reinforcing old ones. This puts a different spin on the common observance that network ties reproduce themselves. That pattern is often interpreted to signal the benefit of relational experience, but at the mixer, it also signifies the heavy weight of structural constraint. We believe that guests were being honest when they reported before the mixer that they intended to meet strangers. Once at the mixer, however, they were apparently reminded that meeting strangers is more difficult (or less rewarding in the face of the opportunity to talk to friends) than they had previously considered. This suggests that guests may benefit from a commitment device that forces them to interact with strangers. The obvious way to make such a commitment is to go to a mixer without one's friends, and indeed, the guests who had the fewest friends at the mixer did meet the most strangers.

The mixed influence of indirect structure is equally compelling. Individuals were more likely to encounter each other if they were connected indirectly from having encountered common others at the mixer but not through indirect ties in the pre-mixer network. The latter non-finding is consistent with our claim that social control, and the social closure that engenders

it, would be less important at the mixer because encounters there involve minimal exposure to malfeasance. The relevance of indirect ties in the mixer network cannot reasonably be attributed to social control as third parties in this context do not provide protection or surety. Rather, we attribute the impetus to close incomplete triads in the mixer network to an attempt to promote social cohesion. It is in this result that our analysis resonates most with that of Reisman et al. (1962) who studied sociability as a collective product. Sociability is a shared effort to produce a *group* identity that transcended individual goals, dyadic relations, and indeed, material concerns of all types (Aldrich, 1972). Our guests were not exclusively dedicated to sociable ends but nonetheless brought to the event social manners and habits that work toward social closure. At the mixer, interacting with a partner's partner was the decent thing to do, an act that reaffirms each member of the triad and legitimates the collective entity, the mixer as a social institution (Trice and Beyer, 1984).

Although the influence of indirect connections through mixer encounters is a structural constraint, at least it is constraint created *at the mixer*. The importance of bridges created at the mixer operates against any claim that mixer parties are dominated by pre-mixer relations. The significance of mixer bridges raises the question of order-dependence at a mixer. Because who encounters whom depends partly on who has encountered whom earlier, mixers may take different trajectories depending on the earliest encounters. Knowing how early encounters influence the trajectory of mixers and of guests would be useful for hosts and guests alike, and is a worthy topic for future research.

Homophilous Attraction

We begin with what we did not find: on *average* there was no significant tendency towards encounter or engagement between similar guests. This is a stark contrast to dozens of

studies of friendships and other mature relationships that show they are more likely between similar individuals. Our non-finding does not call the evidence of homophily in mature relations into question; rather it is suggestive of alternative ways that pattern may emerge. In particular, it combines with our findings regarding structural influences on encounter and engagement to suggest that observed homophily may more likely derive from structures that bring similar people together than from a strong preference for similar others as interaction partners. Thus, our result supports McPherson, Smith-Lovin and Cook's (2001) claim for the primacy of structure as a cause of homophily, and derives from just the sort of dynamic analysis they call for as necessary to separate confounded accounts of the origins of network ties.

How can the micro-processes of encounter and engagement that we document be reconciled with the emergence of homophily in mature relations? First, in many contexts, the pre-existing network structure that influenced the mixer would itself reflect homophily, due to factors such as "geographic propinquity, families, organizations and isomorphic positions in social systems (McPherson et al., 2001: 415)." Second, our results do provide *some* support for the basic value-homophily assertion that contacts with similars may be reassuring and comfortable, in that homophilic engagement was more common for guests most interested in easy relations to maintain. While that preference was not very prevalent at the mixer, there is reason to expect it may weigh more heavily when individuals choose friends or colleagues (Marsden, 1988; Ibarra, 1992).[8]

Third, the evidence regarding encounter processes and engagement processes can be combined to shed light on an intriguing link to homophilous networks. Our results indicate that men are more likely to encounter men of the same race (model 5), but that for most guests (all

[8] There is evidence of this from our pre-party survey because we asked guests not only what their networking intentions were for the evening's *mixer*, but also for their Executive MBA *program* more generally. Forming "easy to maintain" ties was rated as a higher priority for program networking than it was for mixer networking.

except those looking for others with things in common to themselves; compare model 14 to the others in table 3), same race does not predict engagement. If a longer conversation is a positive signal for a future relationship, one might conclude that race did not effect most guests' decisions to invest time, and begin building a closer relationship, with those they encountered at the mixer. Nevertheless, the combination of a superficial encounter process and a more substantive engagement process can result in social segregation by race—if most of the others that an individual meets are the same race as themselves, then mature relationships (e.g., friendships) may be race dependent, even if friends are selected from those met based on characteristics other than race (because the pool which is selected *from* is racially homogenous).

Our finding of associative homophily points to an opportunity to promote mixing on the race dimension, and thus to overcome the liability of the superficial encounter selection. The opportunity is that mixers, or other circumstances where people can meet in groups, may lower the threshold for desired similarity and therefore promote contacts between dissimilars. If a group is attractive to racial minorities merely by virtue of containing at least one person of the same race, it can provide a context for contact between races that may be comfortable for all. The indirect influence of similarity through groups is also suggestive about the mechanisms behind value homophily. In this regard we are particularly interested in the signals that may account for the benefit of associative homophily. We suspect that associative homophily occurs because observers attribute values or sympathies to a group member as a function of the racial characteristics of their interlocutors. This evidence must be reinforced by direct research on the causes of associative homophily, but it is provocative for emerging theories that link sense-making and social attribution to social structure.

Our dynamic homophily effects are also useful for understanding what social occasions may lead to homogeneous or diverse relations. As we predicted, same-sex homophily operated

for early encounters and decreased for later ones. Of course, even though similarity on characteristics like sex may result in rewards in terms of reinforcement of values and attitudes, there are advantages of heterogeneous encounters also, and this is nowhere as obvious as on the dimension of sex. The transition from homophily to heterophily is a manifestation of a familiar phenomenon, that a good party reduces social inhibitions and melds people together[9]. The existence of social constructions that transform and transcend individual components is well known, yet it is a rare thing to actually observe their emergence, to see the transition from behavior as atomistic individuals to behavior as members of the collectivity. The retreat of the self with participation in the mixer may be indicative of the socializing effect of other institutions such as crowds, groups, organizations, and cities. It may also provide substantive guidance for designing institutions that promote networking, particularly when the goal is to facilitate contact between different types of people.

The dynamic effect of attractiveness homophily is the opposite of our expectation, but it is no less gripping for that. Why do people move from heterophily to homophily on attractiveness, when some theory and our sex result indicate the opposite pattern? We believe this dynamic occurs because the attractiveness result is a case of status homophily, while our sex finding (and most others in the literature on interpersonal relations) are instances of value homophily. Unlike value homophily, status homophily depends on a pecking order. It may take time, or more specifically, feedback from encounters, for individuals to learn just where they fit in that pecking order. Of course, you might expect that 30+ years of social experience would have taught our guests where they stand in the attractiveness pecking-order. It turns out that the

[9] The phenomenon of eroding inhibitions brings up the topic of alcohol. Alcohol consumption at our party may have also affected the pattern of encounter. We intended to indirectly measure such consumption, but we were frustrated by a headstrong bartender who refused to stay "wired" to his nTag. Nevertheless, supplementary analysis indicates that the shift from sexual homophily to heterophily depends mostly on the number of encounters and not the time spent at the party (our best available proxy for alcohol consumed), so we believe it is based at least partly on "social intoxication" even though we can't deny that alcohol may have played a role.

bias to self-enhancement operates when interaction partners evaluate their relative attractiveness. Saad and Gill (2005) analyze the self- and other-attractiveness ratings of interacting dyads and report that individuals consistently rate themselves as more attractive than their partners perceive them. Inflated self-perceptions could result in mismatching in the early stages of a social event, as individuals seek partners that equate to their self-image, rather than their true status. As encounters and feedback accumulate, we suspect, self-perceptions are deflated and individuals come to learn, or relearn, their place in the pecking order, and status homophily will emerge. This adjustment is the fate of all those beneath the elite status tier at social and professional mixers.

Generalizing From Our Mixer Party

Given the practical and theoretical significance of the findings, it is important to consider the generalizability of our study to other mixers, parties or similarly unstructured contexts for meeting. In this regard, it is necessary to realize that our innovation was not *simulating* a mixer but rather *measuring social activity* at a real mixer. It is true that we organized the event that we studied, but it was in almost all respects like others that the EMBA program hosted regularly, and if we had not initiated the event it is quite likely the program would have hosted one just like it, minus the measuring devices. Of course, our mixer had a given size, room configuration, and a certain type of guest, and these may have influenced the patterns of encounter and engagement. Only more analyses of mixers can determine the relevance of these factors, although we would suggest that the American context, and the middle-aged professional guests be considered as scope conditions when using our findings to understand other parties or mixers.

One question we have heard is whether our guests may have been less prone to homophily based on demographics because they already shared an important similarity based on

their participation in the same exclusive academic program. We don't see why participation in the program would reduce homophily on other dimensions, particularly given that many studies that find friendship homophily on dimensions such as race and sex examine networks based in the same school, university class, or organizational department. Indeed, the pre-mixer network among our guests reflected just the type of homophily that is evident in many other friendship networks, on all of the bases of similarity that we examined as predictors of mixer encounters. The conclusion must be that dyadic similarity is less prominent for elemental encounters than for mature relationships, not that our guests were for any reason pre-disposed against homophily.

The biggest issue in generalizing from our mixer is how the presence of the nTags affected behavior. Our observation and the reports of guests indicated that the nTags made it easier to initiate contact, acting as an icebreaker, something that people could joke about or discuss to overcome the awkwardness associated with initiating an encounter. In this respect, they played the role that nametags always do at a mixer, albeit in a more novel way.

We think that the key to understanding the effect of the measurement device on generalizability is to recognize that the presence of an 'excuse to interact' is a variable in parties and other contexts for sociability. Simmel makes this point when describing the effect of an invitation to a private party, such as a cocktail party (Wolff, 1950: 114). The invitation grants all attendees the legitimacy to interact with each other. Any guest can approach any other by virtue of the fact that the host has invited them all. It is considered quite rude to refuse an invitation to converse at a private party, but it is quite common to do so in non-exclusive social gathering such as a crowd on the street or in a bar. The effect of the nTags is comparable to that of the invitation—they grant the guests a justification for initiating an encounter, and provide a shield against rejection. In effect, the nTag makes our mixer more like an exclusive gathering, such as a cocktail party, than a mixer with a low screen on invitees would typically be. And even though

we expect the *incidence* of encounter at our mixer to be higher than at non-exclusive social situations, we are not convinced that the *pattern* of encounter would be different between exclusive and non-exclusive contexts, as the legitimacy supplied by an invitation (or an nTag) applies equally to all individuals.

Are Mixers Worth It?

In closing, we return to the initial justification for analyzing a mixer, that organizations and guests invest heavily in these events to facilitate encounters and the development of networks. What do our results say about the profitability of these investments, and whether they could be made more effective?

First, it must be noted that we know only about who encountered whom at the mixer and how long they engaged, not about the subsequent development of professional or social relationships. Without a doubt, our guests believed that encounters at the mixer could lead to useful professional relationships, but that belief could be mistaken, and our research was not designed to test it. We do have some anecdotal information on the relational significance of mixer encounters from conversations we had with two of the guests long after the mixer. As might be expected, they mostly had no subsequent contact with the strangers they met at the mixer. One, however, reported that he occasionally ran into two of those he met first at the mixer at other mixers, so the initial meeting had transformed these from strangers to distant contacts. The other informant had subsequently become good friends with one of the non-friends he had met at the mixer, and also noted the significance of meetings at the mixer with friends, saying that they "added to the 'accretion' of those moments that firmed up those relationships." These accounts may serve as an existence proof for the assumption of all mixer organizers and guests, that encounters at such events *sometimes* contribute to creation and

development of substantive relationships, but it would be useful to know how often that happens, and for which encounters. More research is needed to answer those questions.

If our results suggest a failure of mixers, it is with regard to promoting meetings between people that did not know each other before the event. It is worth remembering, however, that even though our guests were much more likely to interact with their pre-mixer friends, they did still meet some strangers. In fact, our average guest had fourteen encounters at the mixer, divided roughly evenly between pre-mixer friends and strangers. This ratio may be small in light of the intentions of the guests and the proportion of strangers (recall the average guest knew one third of the others at the mixer), but it may be large compared to the rate of meeting strangers in other settings. Even though our typical guest did not fully exploit the opportunity to meet new people, we suspect that they would view the accumulation of seven new contacts as a well-spent evening in terms of the potential for network expansion. Further, our analysis suggests advice for those who seek to meet even more new people: attend mixers *without* your friends.

Of course, the limitation of mixers in terms of promoting meetings between strangers should be offset against their success for promoting meetings between dissimilar people. The results in this regard should provide encouragement for anyone who seeks to break the bonds of homogenous social relations. If there are people of different sex, race, educational background and job type at a mixer, they are quite likely to encounter and engage with each other. Thus, mixers may present an important opportunity to facilitate meetings between people whose differences make it unlikely that they will meet in everyday life.

Finally, we recognize that mixers may serve another purpose besides promoting encounters between new and dissimilar people. They also serve as rites of integration, reinforcing pre-existing relationships by providing friends and acquaintances with *another* opportunity to encounter each other (Beyer and Trice, 1984; Collins, 2005). Thus, mixers and

other parties strengthen existing network ties within a university program, a corporation, or a community at the same time they allow the possibility of creating new ties.

References

Akaike, H. 1974. "A new look at the statistical model identification." IEEE Transaction and Automatic Control AC-19: 716-723.

Aldrich, Howard. 1972. "Sociability in Mensa: Characteristics of interaction among stranges." Urban Life and Culture, 1: 167-186.

Bales, Robert F. Strodtbeck, Fred L., Mills, Theodore M., Roseborough, Mary E. 1951. "Channels of communication in small groups." American Sociological Review, 16: 461-468

Baker, Wayne E. 1994. Networking Smart. New York: McGraw Hill.

Brass, Daniel J., Joseph Galaskiewicz, Henrich R. Greve and Wenpin Tsai. 2004. "Taking stock of networks and organizations: A multilevel perspective. Academy of Management Journal, 47: 795-817,

Burt, Ronald S. 1992. Structural Holes. Cambridge: Harvard University Press.

Collins, Randall. 2004. Interaction Ritual Chains. Princeton: Princeton University Press.

Erickson, Bonny H. 1988. "The relational basis of attituedes." In B. Wellman & S.D. Berkowitz (Eds.), Social structure: A network approach (pp. 99-121). Cambridge: Cambridge University Press.

Finkelstein, Sydney. 1992. "Power in top management teams: Dimensions measurement and validation." Academy of Management Journal, 35: 505-538.

Gakaskiewicz, Joseph and Deborah Shatin. 1981. "Leadership and networking among neighborhood human service organizations." Administrative Science Quarterly, 26: 434-448.

Gibson, David R. 2005. "Taking turns and talking ties: Networks and conversational interaction." American Journal of Sociology, 110: 1561-1597.

Goffman, Erving. 1961. Encounters: two Studies in the Sociology of Interaction. Indianapolis, Bobbs-Merrill.

Gulati, Ranjay and Martin Gargiulo. 1999. "Where do interorganizational networks come from?" American Journal of Sociology, 104: 1439-1493.

Hogg, M. A., & Terry, D. J. 2000. Social identity and self-categorization processes in organizational contexts. Academy of Management Review, 25, 121-140.

Ibarra, Hermenia, 1992. "Homophily in differential returns: Sex differences in network structure and access in an advertising firm." Administrative Science Quarterly, 37: 422-447.

Ibarra, Hermenia. 1993. “Personal networks of women and minorities in management: A conceptual framework.” Academy of Management Review, 18: 56-87.

Ingram, Paul and Peter W. Roberts. 2000. "Friendships among Competitors in the Sydney Hotel Industry." American Journal of Sociology 106: 387-423.

Jin, Emily M., Michelle Girvan and M.E.J. Newman. 2001. “Structure of growing networks.” Physical Review E, 64: 046132.

Kalmijn, Matthijs and Henk Flap. 2001. “Assortative meeting and mating: Unintended consequences of organized settings for partner choices.” Social Forces, 79: 1289-1312.

Kanter, Rosabeth. 1977. Men and women of the corporation. New York: Basic Books.

Kilduff, Martin. 1992. “The friendship network as a decision-making resource: Dispositional moderators of social influences on organizational choice.” Journal of Personality and Social Psychology, 62: 168-180.

Krantz, Marshall. 2005. “The Value of Meetings” www.MeetingNews.com, October 10, 2005.

Lazarsfeld, Paul F. and Robert K. Merton. 1954. “Friendship as a Social Process: A Substantive and Methodological Analysis.” Pp. 18-66 in Monroe Berger, Theodore Abel and Charles H. Page (eds.) Freedom and Control in Modern Society, New York: Octagon Books.

Marsden, Peter V. 1988. “Homogeneity in confiding relations.” Social Networks, 10: 57-76.

Marsden, Peter V. and Noah Friedkin, 1993. "Network Studies of Social Influence." Sociological Methods and Research, 22:127-151

McPherson, Miller, Lynn Smith-Lovin and James M. Cook. 2001. “Birds of a feather: Homophily in social networks.” Annual Review of Sociology, 27: 515-444.

McPherson, Miller and Lynn Smith-Lovin. 1987. "Homophily in voluntary organizations: Status distance and the composition of face-to-face groups." American Sociological Review, 52:370-79.

Mehra, Ajay, Martin Kilduff and Daniel J. Brass. 1998. “At the margins: A distinctiveness approach to the social indentity and social networks of underrepresented groups.” Academy of Management Journal, 41: 441-452.

Moody, James, Daniel McFarland and. Skye Bender-DeMoll. 2005. “Dynamic Network Visualization” American Journal of Sociology, 110: 1206-1241.

Mulford, Mathew, John Orbell, Catherine Shatto and Jean Stockard. 1998. “Physical Attractiveness, Opportunity, and Success in Everyday Exchange.” American Journal of Sociology, 103: 1565-1592

Newcomb, TM. 1960. The Acquaintanceship Process. New York: Holt Rinehart Winston.

Podolny, Joel M. 1993. “A status-based model of market competition.” American Journal of Sociology, 98: 829-872.

Reagans, Ray and Bill McEvily. 2003. “Network structure and knowledge transfer: The effects of cohesion and range.” Administrative Science Quarterly, 48: 240-267.

Riesman, David, R.J. Potter, and Jeanne Watson. 1960a. "The vanishing host." Human Organization, 19: 17-27.

Riesman, David, R.J. Potter, and Jeanne Watson. 1960b. “Sociability, permissiveness and equality.” Psychiatry, 23: 323-340.

Riesman, David, and Jeanne Watson. 1964. "The sociability project." in Sociologists at Work, Philip Hammond (ed.). NY: Basic Books., 235-321

Riggio, R.E., Widamen, K.F., Tucker, J.S., and C. Salinas. 1991. “Beauty is more than skin deep: Components of attractiveness. Basic and Applied Social Psychology, 12: 423-439.

Saad, Gad and T. Gil. 2005. Self-Ratings of Physical Attractiveness in a Dyadic Interaction. Working Paper, Concordia University.

Schelling, TC. 1978. Micromotives and macrobehavior. New York: Norton.

Shartin, Emily. 2005. For some firms, no more partying like it's 1999. Boston Globe. December 11, 2005

Simpson, William. 2001. “The quadratic assignment procedure (QAP).” Boston: STATA Meeting Proceedings.

Sorenson, Olav and Toby E. Stuart. 2001. “Syndication networks and the spatial distribution of venture capital investments.” American Journal of Sociology, 106: 1546-1588.

Tajfel, H. and Turner, J. C. 1986. The social identity theory of inter-group behavior. In S. Worchel and L. W. Austin (eds.), Psychology of Intergroup Relations. Chigago: Nelson-Hall.

Trice, Harrison M., and Janice M. Beyer. 1984. “Studying organizaiotnal cultures through rites and ceremonials.” Academy of Management Review, 9: 653-669.

Useem, Michael and Jerome Karabel. 1986. “Pathways to corporate management.” American Sociological Review, 51: 184-200.

Uzzi, Brian. 1996. "The sources and consequences of embeddedness for the economic performance of organizations: The network effect." American Sociological Review 61:674-698.

Van de bunt, Gerhard G., Maritje A.J. Van Duijn and Tom A.B. Snijders. 1999. “Friendship networks through time: An actor-oriented dynamic statistical network model. Computational and Mathematical Oranizational Theory, 5: 167-192.

Verbrugge, Lois M. 1977. “The structure of adult friendship choices.” Social Forces, 56: 576-797.

Watson, Jeanne and Robert J. Potter. 1962. “An Analytic Unit for the Study of Interaction.” Human Relations, 15: 245-263.

Wolff, Kurt H. 1950. The Sociology of Georg Simmel. New York: Free Press.

Table 1
Weibull Models of Likelihood of Encounter

	Model 1 All dyads	Model 2 All dyads	Model 3 All dyads	Model 4 All dyads	Model 5 Dyads w/ two Men	Model 6 Dyads w/ one or more women	Model 7 Dyads w/out a Pre-Mixer Relationship
Pre-Mixer Mutual Friends	0.006	0.006	0.007	0.006	0.035**	-0.009	0.012*
	(0.95)	(0.98)	(1.05)	(0.89)	(3.46)	(1.11)	(1.92)
Pre-Mixer Dislike	0.084	0.072	0.001	0.047	-1.140	0.515	
	(0.16)	(0.13)	(0.00)	(0.09)	(1.06)	(0.82)	
Pre-Mixer Exposure	0.359	0.345	0.308	0.335	-0.364	0.636*	
	(1.56)	(1.49)	(1.33)	(1.45)	(1.00)	(2.11)	
Pre-Party Like	0.687**	0.683**	0.659**	0.680**	-0.032	1.045**	
	(3.61)	(3.59)	(3.45)	(3.57)	(0.10)	(4.47)	
Pre-Party Strong Like	1.173**	1.167**	1.147**	1.175**	0.438	1.521**	
	(5.78)	(5.74)	(5.63)	(5.77)	(1.32)	(6.03)	
Degree A + B	-0.091**	-0.091**	-0.120**	-0.102**	-0.209**	-0.071**	-0.054*
	(7.87)	(7.88)	(5.30)	(4.91)	(5.95)	(2.76)	(1.77)
Mutual Ties A and B	0.074*	0.075*	0.076*	0.079*	0.159**	0.019	0.167**
	(2.07)	(2.10)	(2.10)	(2.20)	(2.88)	(0.39)	(3.01)
Current Mutual Ties A and B	1.610**	1.607**	1.651**	1.633**	1.611**	1.632**	1.829**
	(17.05)	(16.99)	(17.19)	(17.14)	(10.82)	(12.70)	(12.44)
No Path Between A and B	-2.356**	-2.350**	-2.357**	-2.390**	-2.417**	-2.429**	-3.033**
	(7.90)	(7.88)	(7.86)	(7.98)	(5.07)	(6.25)	(5.83)
Current Guests at the Party	-0.004	-0.004	-0.003	-0.004	-0.003	-0.006	-0.009
	(0.89)	(0.87)	(0.81)	(0.91)	(0.41)	(1.09)	(1.36)
Current Interactions A + B	-0.341**	-0.340**	-0.346**	-0.346**	-0.329**	-0.356**	-0.414**
	(7.82)	(7.82)	(7.91)	(7.93)	(4.79)	(6.25)	(6.16)
Alone	0.353**	0.353**	0.343**	0.342**	0.501**	0.230	0.128
	(3.00)	(3.00)	(2.91)	(2.90)	(2.74)	(1.47)	(0.72)
Same Sex		-0.045	0.436**	0.450**			0.507*
		(0.50)	(2.63)	(2.72)			(1.88)
Same Sex * Degree			-0.031**	-0.032**			-0.037**
			(3.42)	(3.57)			(2.65)
Same Race		0.172	0.091	0.185	0.657**	-0.098	0.244
		(1.12)	(0.43)	(1.20)	(2.75)	(0.48)	(1.06)
Same Race * Degree			0.006				
			(0.60)				
Same Physical Attractiveness		-0.069	-0.222*	-0.224*	-0.478**	-0.084	-0.099
		(1.09)	(2.06)	(2.09)	(2.73)	(0.59)	(0.57)
Same Phys. Att. * Degree			0.010*	0.010*	0.022**	0.004	-0.002
			(1.72)	(1.75)	(2.36)	(0.58)	(0.28)
Same UG Status		0.027	-0.176	0.027	-0.250	0.172	0.077
		(0.21)	(0.91)	(0.21)	(1.11)	(1.06)	(0.43)
Same UG Status * Degree			0.014				
			(1.39)				
Same Job Function		0.002	-0.226	-0.009	-0.031	0.022	-0.136
		(0.02)	(1.27)	(0.09)	(0.20)	(0.17)	(0.90)
Same Job Function * Degree			0.014				
			(1.46)				
Constant	-25.316**	-25.346**	-24.927**	-25.124**	-28.711**	-47.108	-47.373
	(11.28)	(11.23)	(10.97)	(11.08)	(10.23)	(0.03)	(0.02)
Shape Parameter (p)	2.259	2.258	2.250	2.25	2.80	2.034	2.23
	(14.63)	14.62)	14.62)	14.58)	(12.17)	(9.86)	(8.68)
Log Likelihood	-1568.86	-1567-.51	-1557-.49	-1559.81	-584.87	-916.96	-762.63

Absolute value of z statistics in parentheses
* significant at 5%; ** significant at 1%; one-tailed tests where predictions were made.

Table 2
Associative Homophily and Friendship:
Influence of Groups on the Likelihood of Encounter

	Model 8	Model 9	Model 10
	Average Similarity / Pre-Mixer Friendship	Any Similarity / Pre-Mixer Friends	Total Similars / Pre-Mixer Friends in Group
Associative Homophily: Sex	0.084	0.140*	0.061
	(1.07)	(1.88)	(1.25)
Associative Homophily: Race	0.204*	0.230**	0.163**
	(2.22)	(2.62)	(3.27)
Associative Homophily: Attractiveness	0.046	0.019	-0.001
	(1.24)	(0.27)	(0.02)
Associative Homophily: UG Status	0.130	0.122	0.059
	(1.41)	(1.41)	(1.09)
Associative Homophily: Job Function	-0.016	-0.056	0.010
	(0.19)	(0.74)	(0.18)
	0.639**	0.456**	0.315**
Associative Friendship: Pre-Mixer Like			
	(4.35)	(6.41)	(5.53)
Associative Friendship: Pre-Mixer Strong Like	1.300**	0.705**	0.529**
	(8.45)	(9.41)	(8.94)
Constant	-25.136**	-18.535**	-24.481**
	(11.01)	(12.88)	(10.78)
Log-Likelihood	1512.50	-1494.52	1505.18

Absolute value of z statistics in parentheses
* significant at 5%; ** significant at 1%

Table 3
Weibull Models of Likelihood of Ending an Engagement

	Model 11 All Dyads	Model 12 All Dyads	Model 13 All Dyads	Model 14 Dyads looking for things in common	Model 15 Dyads looking for easy ties to maintain	Model 16 All Dyads
Pre-Mixer Mutual Friends	0.001	0.001	0.002	0.008	0.092	0.008
	(0.15)	(0.17)	(0.26)	(0.07)	(1.49)	(1.00)
Pre-Mixer Dislike	-1.348*	-1.693**	-1.575*	-4.678	-10.108**	-1.141
	(2.19)	(2.68)	(2.52)	(0.79)	(3.03)	(1.87)
Pre-Mixer Exposure	0.152	0.127	0.126	4.660	-4.259*	0.047
	(0.56)	(0.47)	(0.46)	(1.08)	(2.36)	(0.18)
Pre-Mixer Like	-0.197	-0.221	-0.225	-6.442*	-1.554	-0.378*
	(0.87)	(0.96)	(0.98)	(1.88)	(1.00)	(1.65)
Pre-Mixer Strong Like	-0.619*	-0.649**	-0.655**	-3.251	-3.364*	-0.904**
	(2.46)	(2.59)	(2.60)	(1.14)	(1.92)	(3.54)
Degree A + B	-0.022	-0.035	-0.026*	0.243*	0.028	-0.032*
	(1.77)	(1.10)	(2.03)	(2.10)	(0.44)	(2.46)
Current Mutual Ties A and B	0.016	-0.001	0.003	-0.359	-0.674*	-0.075
	(0.17)	(0.02)	(0.04)	(0.78)	(1.71)	(0.80)
Mutual Ties Between A and B	-0.033	-0.029	-0.030	-0.265	-0.104	0.007
	(0.76)	(0.64)	(0.68)	(0.69)	(0.66)	(0.17)
Current Guests at the Mixer	-0.013**	-0.012*	-0.012*	-0.171**	-0.059**	-0.010*
	(2.83)	(2.51)	(2.57)	(4.16)	(2.64)	(2.00)
Current Engagements A + B	0.145**	0.159**	0.158**	0.539*	0.414*	0.231**
	(3.58)	(3.86)	(3.87)	(2.56)	(2.51)	(3.81)
Same Sex		-0.264	-0.041	1.426	0.622	-0.022
		(1.04)	(0.34)	(1.01)	(0.95)	(0.18)
Same Sex * Degree		0.013				
		(1.06)				
Same Race		0.017	-0.147	-4.043**	-0.622	0.110
		(0.05)	(0.66)	(2.61)	(0.67)	(0.51)
Same Race * Degree		-0.011				
		(0.90)				
Same Attractiveness		-0.159	-0.114	-2.076**	0.865**	-0.089
		(0.98)	(1.41)	(2.71)	(2.70)	(1.11)
Same Attractiveness * Degree		0.003				
		(0.40)				
Same UG Status		0.389	0.250	-1.798	-1.702*	0.312
		(1.38)	(1.60)	(1.16)	(1.90)	(1.96)
Same UG Status * Degree		-0.007				
		(0.55)				
Same Job Function		0.008	0.281*	1.055	-2.018**	0.234
		(0.03)	(2.27)	(1.22)	(2.78)	(1.92)
Same Job Function * Degree		0.016				
		(1.10)				
Associative Homophily: Sex						0.265**
						(3.15)
Associative Homophily: Race						-0.331**
						(3.47)
Associative Homophily: Attractiveness						-0.367**
						(4.37)
Associative Homophily: UG Status						0.335**
						(4.05)
Associative Homophily: Job Function						0.011
						(0.13)
Associative Friendship: Pre-Mixer Like						-0.068
						(0.69)
Associative Friendship: Pre-Mixer Strong Like						-0.390**
						(4.03)
Constant	-4.379**	-10.270	-4.851**	-0.606	6.234	-5.400**
	(4.13)	(0.01)	(4.33)	(0.15)	(1.28)	(4.71)
Shape Parameter (p)	1.32	1.35	1.34	3.01	2.31	1.38
	(8.12)	(8.54)	(8.44)	(9.43)	(8.02)	(9.26)
Log Likelihood	-763.86	-756.75	-758.59	-39.72	-77.09	-705.96

Absolute value of z statistics in parentheses
* significant at 5%; ** significant at 1%; one-tailed tests where predictions were made.

Figure 1
Dynamics of Homophily
in Mixer Encounters