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Fostering Diverse Friendships: The Role of Beliefs about the Value of Diversity

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Abstract

Encouraging dialogue between people of differing social backgrounds and beliefs can reduce

prejudice and lead to greater appreciation of diversity, which in turn fosters attitudinally diverse

friendships. We investigated how beliefs about the value of diversity relate to attitudinal

diversity within relationship dyads. In a field study of naturally-occurring relationship pairs in

two neighborhoods of Boston (N=89 dyads), participants completed measures of diversity beliefs

and sociopolitical attitudes. People placed higher value on diversity in the Jamaica Plain

neighborhood compared to people in the North End neighborhood, and relationship pairs were

more attitudinally diverse in Jamaica Plain than in the North End. Attitudinal diversity within

pairs was predicted by how highly the pair jointly valued diversity. Further, pairs' greater

valuing of diversity in Jamaica Plain mediated the effect of neighborhood on attitude diversity.

These findings suggest that individual differences in appreciation for diversity are meaningful

predictors of diverse relationships.

Fostering Diverse Friendships: The Role of Beliefs about the Value of Diversity

Friendship and other close relationships are an integral part of a healthy social life. Friends and other relationship partners provide entertainment, acceptance, support, and opportunity for growth. Often, people choose to be friends with others who are similar to them (e.g., Byrne, 1971), perhaps because similar others are both comfortable and familiar. Yet, interacting with people who hold different attitudes, values, and beliefs from our own can help us to gain understanding beyond our own experiences (Allport, 1954). We propose that people who recognize the benefits of diversity are more likely to seek out opportunities to meet diverse others. Appreciation for diversity is likely to affect friendship choices such that individuals who value diversity are more attracted to difference than similarity in a potential friend. We investigated the role of valuing diversity in predicting attitude diversity among naturally-occurring relationship pairs.

Research in support of the contact hypothesis (Allport, 1954) suggests that interactions with members of social outgroups can reduce prejudice and intergroup anxiety. In addition, multicultural experiences enhance creativity-supportive cognitive processes such as the retrieval of unconventional knowledge, insight learning, and idea generation (Leung, Maddux, Galinsky, & Chiu, 2008). In order for intergroup contact to yield positive outcomes, however, the contact must occur under a particular set of conditions, including equal status among groups, common goals, cooperation, and the support of authorities. In a reformulation of intergroup contact theory, Pettigrew (1998) pointed out how the processes underlying intergroup contact effects (e.g., close affective ties and learning about the outgroup) are facilitated by cross-group friendship. A growing body of evidence attests to the benefits of cross-group friendship, including reduced prejudice and intergroup anxiety, multicultural competence, volunteerism, and

leadership skills (Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Page-Gould, Mendoza-Denton, & Tropp, 2008; cf. Dixon, Tropp, Durrheim, & Tredoux, 2010). In a meta-analysis of the cross-group friendship literature, Davies et al. (2011) found that cross-group friendships significantly improved intergroup attitudes, especially when the friendships involved frequent interaction and self-disclosure.

If research shows that cross-group friendship is a promising avenue for reducing prejudice, why then do individuals typically (only) make friends with similar others? Decades of research on the similarity-attraction effect attests to the pervasive human tendency of being attracted to those who are similar to us (Byrne, 1971). Friends are often similar in attitudes (Byrne & Nelson, 1965), behaviors (Mercken, Candel, Willems, & de Vries, 2007; Bahns, Pickett, & Crandall, 2012), personality traits (Humbad, Donnellan, Iacono, McGue, & Burt, 2010), and even the first letter of one's name (Nuttin, 1987). And while there is some evidence that similarity among partners is associated with relationship satisfaction (Morry, 2005), the lure of similarity constitutes a barrier to the formation of diverse friendships and the benefits such friendships confer.

Beliefs about Diversity and Opportunities for Contact

In this paper, we adopt a social ecological approach to studying relationship formation (Bahns et al., 2012; Oishi & Graham, 2010; Stokols, 1992) by considering how individual-level and community-level factors affect the degree of similarity (or diversity) within relationship pairs. This approach recognizes that relationship formation is affected by individual preferences and choices, and also acknowledges that those preferences and choices are constrained by features of the social context (e.g., opportunities to meet new people, diversity of people in the community, social norms about diversity). We reason that the same factors that are responsible

for the creation of similarity within relationships, such as social selection processes and opportunities to meet new people, are likely to be important for understanding how to foster diverse relationships.

At the individual level, similarity in relationships can result from social selection, a process whereby individuals choose one another on the basis of similarity. People often connect with those to whom they feel they can best relate, and similarity fosters that connection (Kandel, 1978). In this way, similarity may function as a criterion for relationship initiation. If a person initially feels incongruent to a person they have just met (for example, he or she is in a different religious or ethnic group), they may reject the new person due to a perception of subsequent incompatibility (Sunnafrank & Ramirez, 2004). Some individuals, however, may be more open to the idea of forming relationships with those who are different, perhaps because they recognize the many benefits that diverse relationships have to offer.

At the community level, structural factors which provide or restrict opportunities to meet diverse others are likely to influence social interaction and friendship patterns. Relationship formation is influenced by the size and diversity of the pool of available relationship choices (Athanasiou & Yoshioka, 1973; Blau, 1977). People often befriend those who live in the same geographical location as them, who cohort with their familial networks, and who attend the same organizations, such as work or church (McPherson, Smith-Lovin, & Cook, 2001). These contexts tend to generate homogamy, as they are often comprised of people who are homogeneous in characteristics such as race, sexual orientation, and religion (McPherson et al., 2001). A social homogamy account suggests that homogeneous settings create similarity in relationships independently of individual choices or active assortment based on preference for similarity (cf. Luo & Klohnen, 2005). By the same token, one might expect that diverse settings foster more

diverse relationships. Some research suggests quite the opposite, however; Bahns et al. (2012) found that relationship pairs were more attitudinally similar at a large, relatively diverse university campus compared to smaller, less diverse college campuses in the same state. Similarly, Baldassare (1976) demonstrated that neighborhood density is negatively related to interracial friendship formation. These studies suggest contexts that afford more social choice tend to foster more similar relationships.

On the other hand, in studies of interracial friendships racial/ethnic diversity of the community has been shown to be positively associated with racial/ethnic and religious diversity in friendship networks (Fischer, 2008; Vanhoutte & Hooghe, 2012). Yet even after controlling for community-level diversity, there is considerable variance between communities (Fischer, 2008). This suggests that something more than mere opportunity to interact with diverse others affects diverse relationship formation; the current research examines the role of beliefs about the value of diversity in fostering diverse social relationships.

College students' perceptions of a positive multicultural campus climate and institutional support for diversity are associated with greater acceptance of diversity (Simmons, Wittig, & Grant, 2010) and greater likelihood of cross-group friendships (Levin, van Laar, & Sidanius, 2003). Thus we expect that communities where the prevailing social norm is one of valuing diversity are more likely to foster diverse relationships than communities where diversity is less positively regarded. Additionally, we focus on how individual differences in appreciation for diversity relate to the similarity or diversity of attitudes within relationship pairs. Positive diversity attitudes are associated with reduced prejudice and discrimination (Kauff & Wagner, 2012) and increased interest in intergroup contact (Tropp & Bianchi, 2006). We hypothesize that valuing diversity is also associated with the formation of diverse relationships. In our research

we employ a construct called *valuing diversity*, which captures individual differences in the "attitude of awareness and acceptance of both the similarities and differences among people" (Miville et al., 1999, p. 291). Valuing diversity is similar to the ideology of multiculturalism (Richeson & Nussbaum, 2004), in that it involves both acknowledging and celebrating differences among people from different cultures and backgrounds.

Our research extends the purview of the cross-group friendship literature by examining a different facet of friendship diversity—attitudinal diversity. While previous research on cross-group friendships has almost exclusively focused on groups defined by sociodemographic dimensions (especially race/ethnicity), the current research focuses on groups defined by value-based dimensions (attitudes, beliefs, preferences; see Vanhoutte & Hooghe, 2012). The primary goal of this research was to explore whether positive diversity attitudes promote healthy and diverse social relationships. In accordance with previous research showing that valuing diversity is associated with increased interest in intergroup contact (Tropp & Bianchi, 2006), our main hypothesis was that valuing diversity promotes diverse relationships.

Overview

Using a questionnaire-based field method (adapted from Crandall, Schiffhauer, & Harvey, 1997), we compared attitudinal diversity (or similarity) of relationship pairs and self-reported social network diversity across two different neighborhoods of Boston—Jamaica Plain (JP) and the North End (NE). We selected these two neighborhoods to represent high and low degrees of racial/ethnic and income diversity, respectively (City of Boston, 2014a, 2014b; Sperling's Best Places, 2014a, 2014b). We wanted to compare neighborhoods that varied in sociodemographic diversity in accordance with previous research suggesting that diverse communities are more likely to foster similar relationships (Bahns et al., 2012; Baldassare,

1976). However, because other research suggests that diverse communities are more likely to

foster diverse relationships (Fischer, 2008; Vanhoutte & Hooghe, 2012), our investigation of

whether relationship pairs are more or less attitudinally diverse in the more diverse Jamaica Plain

neighborhood (as compared to the North End) was exploratory in nature.

　　　　To measure attitudinal diversity, we selected a set of sociopolitical attitudes on which

people's opinions are likely to vary widely (e.g., birth control, gay marriage, prejudice toward

various social groups). This strategy gives us the best opportunity to capture differences among

relationship pairs in terms of their degree of attitudinal similarity or diversity. Our main interest

was in characterizing the overall profile of similarity or diversity of relationship pairs across a set

of attitudes; we anticipate that our results would be much the same if we were to use a different

set of socially relevant attitudes (provided that there was sufficient variance in the population).

We also measured a set of health-related behaviors for comparison, to explore whether our

effects might extend beyond attitudinal diversity to include another domain of difference that is

not typically associated with the intergroup contact literature.

　　　　We measured individual beliefs about diversity (valuing diversity) as our focal construct,

using a measure that assesses multiple dimensions of social differences among people.

Consistent with our social ecological approach, we evaluated the relationship of valuing diversity

to diverse relationship outcomes at multiple levels of analysis. At the individual level, we

expected that individuals who place a high (as compared to low) value on diversity would report

having a more diverse social network. At the community level, we expected that pairs would be

more attitudinally diverse in neighborhoods in which the value placed on diversity is high (as

compared to low). While we selected the two neighborhoods to vary on racial/ethnic and income

diversity, we did not know a priori in which neighborhood beliefs about the value of diversity

would be more positive. Finally, at the relationship level, we expected that pairs that place a high (as compared to low) value on diversity would be more attitudinally diverse.

Method

Participants

Participants were 89 dyads (178 individuals) recruited from two neighborhoods in Boston: Jamaica Plain (JP) and the North End (NE). Sociodemographic information for the two neighborhoods is reported in Table 1. We calculated a racial heterogeneity index "h" (Moody, 2001) using 2010 U.S. Census data (City of Boston, 2014a, 2014b) in order to characterize the racial/ethnic diversity of each neighborhood. This measure reflects the probability that two randomly selected individuals will be of different races. We calculated the heterogeneity index using five racial/ethnic group categories (White, Black/African American, Hispanic/Latino, Alaska Native or American Indian, and Asian); possible values ranged from 0 (least diverse) to .80 (most diverse). Scores on this index confirmed that Jamaica Plain is higher in racial/ethnic diversity (h = .64) than the North End (h = .17).

Participants' ages ranged from 15[1] to 65 (M = 31.42, SD = 10.54). The JP sample had 48 dyads including 17 female dyads, 4 male dyads, 19 opposite-sex dyads, and 8 dyads that did not report sex. The NE sample had 41 dyads including 13 female dyads, 2 male dyads, 19 opposite-sex dyads, and 7 dyads that did not report sex. The individuals voluntarily participated in our study and received no compensation.

Dyad Recruitment Procedure

Data were collected in the summer of 2012. Researchers went to public spaces where people could easily be found (e.g., parks, ice cream parlors) in the North End and Jamaica Plain during late morning to late afternoon hours. The researchers approached naturally-occurring

dyads defined as "any group of exactly two adults who appear to be interacting in some way." If only one dyad was present, the researcher approached that dyad. If two or more dyads were present, the researcher used a table of directions for the eight points of the compass labeled in random order, and dyads were approached accordingly. Researchers repeated this procedure until all of the dyads in the area participated, declined to participate, or indicated that they were not Boston residents.

Dyads were first approached and asked if they were residents of Boston and over the age of 18 (55% of the eligible dyads approached agreed to participate). Upon affirmation, dyads were asked to partake in an anonymous, two-minute "study of Boston residents." They were shown a consent form and were assured that their responses would remain anonymous. After verbal consent, each person received a copy of the one-page questionnaire and dyads were asked not to discuss the content with each other until after completing the study.

While the field method we employed is likely to sample relationships of various kinds, we have focused the discussion of our findings on the context of friendship. This is because in past research with community samples using this same method (Authors, 2014), when we measured relationship type directly the overwhelming majority of dyad members (89%; $N = 524$) reported being friends or acquaintances. Only a small number reported being romantic couples (6.5%) or family members (1.1%). One way to examine whether treating all dyads the same may have affected our results is to test for differences between same-sex and opposite-sex dyads (since same-sex dyads are less likely to be romantic couples). For all of the analyses reported below, sex composition of the dyad did not affect the results.

Materials

Diversity measures. To measure *valuing diversity*, we used a 12-item abridged version (α = .74 overall; α = .70 in JP; α = .75 in the NE) of the Miville-Guzman Universality-Diversity Scale (Miville et al., 1999). The scale assessed attitudes and behavioral tendencies relevant to several different dimensions of diversity including race, ethnicity, sexual orientation, nationality, age, and physical ability. Sample items[2] include "I attend events where I might get to know people from different racial backgrounds," "I am interested in knowing people who speak more than one language," and "I can best understand someone after I get to know how he/she is both similar and different from me" (1 = *Strongly disagree*, 7 = *Strongly agree*).

In addition, we measured *social network diversity* by assessing participants' self-reported proportion of diverse friends. The questionnaire defined "friends" as individuals that one feels close to and can share personal information with and "diverse friends" as different from oneself in at least one of the following dimensions: sexual orientation, political affiliation, religious beliefs, ethnic/racial identity, social class, and nationality. Using these definitions, participants were asked to report the total number of friends they had, and of these, how many they considered diverse; from this information we calculated the proportion of diverse friends for analysis.[3]

Attitude measures. Participants filled out ten single-item attitude measures on Likert-type scales. Six items measured social/political attitudes. These items included, "Anyone who is willing and able to work hard has a good chance of succeeding [endorsement of the Protestant work ethic]," "I believe that marriage should be between one man and one woman," "I support female contraception," "The average person can live a good enough life without religion," "Abortion should remain legal" (1 = *Strongly disagree*, 7 = *Strongly agree*)[4], and a single-item measure of political beliefs (1 = *Conservative*, 4 = *Moderate*, 7 = *Liberal*). Four items measured

participants' attitudes toward various social groups (Muslims, welfare recipients, prostitutes, and fat people; 1 = *Very negative*, 7 = *Very positive*).

Participant characteristics. Participants reported their sex and age in years. They also reported how long they had known each other in years and months (relationship length in months was used for analysis). Health behaviors, including frequency of tobacco use, alcohol use, and exercise were reported (1 = *Not at all*, 7 = *A lot*). Participants also reported whether they were residents of Boston (*Yes*, *No*), which we used to verify that all participants were eligible to take part in the study.

Social desirability. Participants filled out a truncated 4-item (α = .50 overall, α = .52 in JP; α = .44 in the NE) true/false version of the Social Desirability Scale (Crowne & Marlowe, 1960). These items included, "I never hesitate to go out of my way to help someone in trouble," "I have never intensely disliked anyone," "I am always courteous, even to people who are disagreeable," and "I am sometimes irritated by people who ask favors of me (reversed)."

Results

Characterizing the Neighborhoods

Table 2 presents the descriptive statistics and mean comparisons for each neighborhood. Dyads sampled in Jamaica Plain (JP) and the North End (NE) did not significantly differ in age or length of relationship. Participants sampled in JP and the NE did not differ in exercise or smoking habits. However, participants sampled in the NE drank more frequently than those sampled in JP. These findings suggest that the nature of the relationships and the health behaviors of the people we sampled in each neighborhood were not meaningfully different (with the exception of drinking alcohol).

There were significant differences between the two neighborhoods on four of the ten

attitudes we measured. Participants sampled in the NE endorsed the Protestant work ethic more

strongly, held more conservative political beliefs, and reported more negative attitudes toward

welfare recipients and prostitutes than participants sampled in JP. These findings suggest that

people sampled in JP tended to hold more liberal attitudes as compared to people in the NE.

Comparing the neighborhoods on our diversity measures revealed that people in the JP

sample reported valuing diversity more highly than those in the NE sample. People in the JP

sample also reported having a higher proportion of diverse friends, however this difference was

not statistically significant. As predicted, the two diversity measures were positively correlated.

Individuals who valued diversity more highly tended to report a higher proportion of diverse

friends; however, this relationship was significant only in the JP sample ($r = .22, p = .04$) and not

in the NE sample ($r = -.02, p = .89$).

Given that there is likely to be a certain amount of social pressure to publicly embrace

diversity, we included a measure of social desirability in order to ascertain the likelihood that

responses on our self-report diversity measures were influenced by this pressure. While the low

reliability of our truncated measure of social desirability makes us wary of drawing any firm

conclusions, social desirability was not correlated with the valuing diversity scale ($r = .12, p =$

$.10$) or with self-reported proportion of diverse friends ($r = .09, p = .26$).

Comparing Attitudinal Diversity by Neighborhood

For each attitude, we calculated intraclass correlation coefficients (ICCs) for

indistinguishable dyads (Kenny, Kashy, & Cook, 2006, Chapter 2) as an index of the attitudinal

similarity or diversity of the dyads in each neighborhood (see Table 2). For a given attitude, the

ICC reflects the relationship between dyad members' scores (across all dyads in the sample). The

measure is normalized such that a value of 1.0 indicates perfect similarity, a value of -1.0 indicates maximal dissimilarity, and a value of 0 indicates that the dyads are no more similar or different than would be expected by chance. Because the variance between dyads is measured relative to the variance of the sample, ICCs represent the similarity or diversity of dyads above and beyond the similarity or diversity of individuals in the sample. For instance, a significant[5] positive ICC indicates that the naturally-occurring dyads we sampled are more similar on that attitude than randomly paired dyads from the same neighborhood. A significant negative ICC signifies that the naturally-occurring dyads we sampled are less similar (more diverse) on that attitude than randomly paired dyads from the same neighborhood.

Consistent with the hypothesis that valuing diversity promotes attitudinally diverse relationships, we expected that pairs would be more attitudinally diverse in the neighborhood where people tended to place a higher value on diversity (JP). Indeed pairs in the NE sample were more similar (ICCs were higher) than pairs in the JP sample on 9 of the 10 attitudes we measured (binomial $p = .01$, one-tailed). We also compared ICCs in each neighborhood using the Fisher z transformation (Kenny et al., 2006, pp.140-141). Aggregating across the ten attitudes we measured, the mean z-transformed ICC for the NE was .38 while the mean z-transformed ICC for JP was .09. This indicates that dyads in JP were significantly more attitudinally diverse than dyads in the NE, $z= -6.36$, $p < .001$.

We propose that the observed difference in attitude diversity between the two neighborhoods reflects people's greater valuing of diversity in JP as compared to the NE. An alternative possibility is that the JP dyads were more attitudinally diverse than those in the NE because of differences in the variability of attitudes in the two neighborhoods. JP is more racially diverse than the NE, which might reasonably be expected to correspond to greater attitudinal

diversity. However, Levene's test for equality of variances (Levene, 1960) indicated that the variances in the two neighborhoods were significantly different for only 2 of the 10 attitudes we measured, which is not different from what we would expect by chance (binomial $p = .17$, two-tailed). Further, these differences were in opposite directions, with the variance being greater in JP for political beliefs and greater in the NE for attitudes toward religion. Thus it appears that the opportunity for meeting attitudinally diverse others was not different in the two neighborhoods.

Does Valuing Diversity Predict Diverse Relationships?

To examine whether valuing diversity *at the relationship level* predicts attitudinally diverse relationships, we used a dyad-centered or idiographic approach to characterize the degree of similarity or diversity of each dyad across the entire set of 10 attitudes we measured. The idiographic approach allows us to determine whether or not relationship pairs that value diversity more highly tend to be more attitudinally diverse. By comparison, the ICC analysis reported above to compare dyadic similarity at the community level uses a variable-centered or nomothetic approach to examine how similar dyads are on one attitude at a time (across all dyads in the sample). The nomothetic approach allows us to determine whether relationship pairs tend to be more similar in JP or the NE for a given attitude.

We first calculated the intraclass correlation for indistinguishable dyads as a dyadic index of attitude diversity (or similarity) (Kenny et al., 2006, Chapter 12). This time the ICC was calculated separately for each dyad; the dyadic index describes the relationship between dyad members' scores across the set of 10 attitudes we measured. Higher values reflect greater similarity and lower values reflect greater diversity. We chose the ICC as our dyadic index because it allows for comparison of the shape (pattern of differences), spread (variability), and level (mean) of dyad members' scores across the 10 attitude items (Robinson, 1957).

Next we tested whether dyad-level beliefs about diversity predicted attitude diversity, and whether this relationship varied by neighborhood. We regressed the dyadic index of attitude diversity on the *highest* of the two dyad members' valuing diversity scores (mean centered), an effect coded indicator variable for neighborhood (-1 = North End, 1 = Jamaica Plain) and their interaction. In this analysis valuing diversity and attitude diversity are both measured at the dyad-level. We chose to use the highest score of the dyad as our index of dyad-level valuing diversity because we are conceptualizing valuing diversity as a joint resource of the relationship.[6] We propose that as long as one person is motivated to seek out social contact with diverse others, a diverse relationship can form.

The results of the regression analysis revealed that, controlling for the effect of neighborhood, dyad-level valuing diversity is a significant predictor of attitude diversity within relationship dyads ($B = -.16$, $SE = .07$, $\beta = -.25$, $t(88) = -2.28$, $p = .03$). Valuing diversity was associated with lower ICCs (greater attitude diversity). The effect of neighborhood ($B = -.04$, $SE = .04$, $\beta = -.10$, $t(88) = -0.97$, $p = .34$) and the interaction of valuing diversity and neighborhood ($B = .03$, $SE = .07$, $\beta = .05$, $t(88) = 0.45$, $p = .65$) were not significant. This suggests that regardless of which neighborhood they were sampled in, dyads that valued diversity highly were more attitudinally diverse compared to dyads that valued diversity less highly.[7] However, because the community-level analysis revealed that dyads tended to be more diverse in JP than the NE and that people in JP tended to value diversity more highly than people in the NE, we next examined whether the observed difference in attitude diversity between the neighborhoods could be explained by the dyads' beliefs about diversity.

We used Preacher and Hayes' (2008) bootstrapping macro to test whether the effect of neighborhood on the dyadic index of attitude diversity (ICC) was mediated by dyad-level

valuing diversity (the highest score of the dyad, mean centered). As shown in Figure 1, neighborhood was a significant predictor of valuing diversity ($B = .16$, $SE = .06$, $p = .02$); JP dyads valued diversity more highly than NE dyads. In turn, valuing diversity was a significant predictor of the attitude diversity index ($B = -.16$, $SE = .07$, $p = .02$); valuing diversity was associated with lower ICCs (greater attitude diversity). Using 5000 bootstrap resamples, a test of the indirect effect was significant ($B = -.03$, $SE = .03$, 95% confidence interval -.07 to -.003), indicating that the effect of neighborhood on dyadic attitude diversity[8] (with JP dyads being more diverse) can be explained at least in part by JP dyads' higher valuing of diversity as compared to NE dyads.

Discussion

Using a questionnaire-based field method, we found that positive beliefs about diversity were associated with diverse relationships. Further, we found support for this hypothesis at multiple levels of analysis. At the community level, relationship pairs were more attitudinally diverse in Jamaica Plain (JP) than in the North End (NE), where people on average valued diversity more highly. We propose that the higher valuing of diversity among people in JP explains relationship partners' greater attitudinal diversity. This is consistent with our prediction that neighborhoods in which people value diversity more highly would be more likely to foster attitudinally diverse relationships.

At the relationship level, pairs who together valued diversity more highly were more attitudinally diverse than pairs who valued diversity less highly (regardless of whether they were sampled in JP or the NE). Further, the tendency for relationship pairs to be more attitudinally diverse in JP as compared to the NE was mediated by the pairs' higher valuing of diversity.

These findings are consistent with the hypothesis that valuing diversity—conceptualized as a joint resource of the relationship—fosters attitudinally diverse relationships.

Finally, at the individual level, people who valued diversity more highly were more likely to report having diverse social networks than those who valued diversity less highly. However, this relationship was only found among people sampled in JP; valuing diversity was not significantly related to social network diversity in the NE. We suspect that this may indicate that one or both of the self-report measures was affected by social desirability concerns to a greater degree in the NE than in JP, however because our truncated measure of social desirability had low reliability (particularly in the NE sample) we are hesitant to draw any firm conclusions about social desirability concerns.

We selected two neighborhoods that were known to vary on racial/ethnic and income diversity in order to explore the possibility suggested by Bahns et al. (2012) that bigger and more diverse communities are more likely to foster attitudinally similar friendships. Their argument is that with greater number and variety of social choices, it becomes easier to select similar others as friends and partners. Our findings were not consistent with this suggestion. Instead we found that relationship pairs were more attitudinally diverse in the more diverse JP neighborhood, which is more consistent with studies that have found racially diverse communities are more likely to foster interracial friendships (Fischer, 2008; Vanhoutte & Hooghe, 2012).

Our findings help to clarify these seemingly contradictory findings, by highlighting the fact that diverse communities offer greater opportunity to seek *either similar or diverse* friends. Whether diverse communities foster similar or diverse friendships also depends on individuals' motivation to seek similar or diverse others, which we propose is shaped by their beliefs about diversity. Importantly, Bahns et al. (2012) compared relationship dyads at the large University of

Kansas to dyads at several smaller colleges in the same state; thus community size and diversity were confounded in their study. In our study we varied the sociodemographic diversity of the neighborhoods while holding community size relatively constant (both neighborhoods are within the Boston city limits). In this scenario, it seems that valuing diversity was a better predictor of the attitudinal diversity of relationship pairs than was the sociodemographic diversity of the neighborhoods.

The current research has several strengths worth noting. For instance, we were able to demonstrate that valuing diversity predicts diverse relationship outcomes, which extends previous research showing that valuing diversity predicts interest in intergroup contact (Tropp & Bianchi, 2006). An important contribution of this research is that it offers a novel way to operationalize diverse relationships, by examining the attitudinal diversity of relationship pairs. Although much of the existing literature on cross-group friendship does not assess this aspect of diversity, sociopolitical attitudes are known to be an important determinant of friendship formation (Byrne & Nelson, 1965; Bahns et al., 2012).

In addition, we objectively examined attitude diversity within dyads and how this construct relates to valuing diversity. Instead of analyzing participants' perceptions of how different they are from their partner, we asked each dyad member to report their attitudes directly and then compared their responses. The method we used captured people in their everyday lives, and our definition of a dyad reflects important choices of how people spend their time, and with whom. Our findings suggest that diversity beliefs shape these social choices, and while we have focused our discussion on the context of friendship, we would expect this to be true for any type of "voluntary" relationship.

Previous research has identified attitude similarity as a powerful predictor of attraction and friendship (Bahns et al., 2012; Byrne, 1971; Byrne & Nelson, 1965). Bahns et al. (2012) makes the point that the (presumably universal) desire to seek similarity in friendship is constrained by the opportunity to meet similar others. The major contribution of the current study is in demonstrating that individual differences in valuing diversity also moderate similarity seeking. We found that relationship pairs were more attitudinally diverse in the more diverse JP relative to the less diverse NE, at least in part because the people in JP valued diversity more highly. Rather than assuming that similarity is always the most desirable characteristic in a friend, our study suggests that for some individuals, diversity is an attractive feature of friendship. Understanding how appreciation for diversity relates to friendship choices advances our understanding of friendship formation.

One important limitation of our research is the self-report nature of the study. When responding to the valuing diversity scale, participants may have felt demand to provide socially desirable answers to our questionnaire. Diversity has become a common "buzz word" in public discourse, and while most people report having positive associations with the word "diversity," few are willing to engage in a critical examination of social inequality (Bell & Hartmann, 2007). Thus it is very possible that some individuals pay lip service to the value of diversity without actually changing their social behavior. We attempted to measure social desirability, but in the interest of keeping our questionnaire short to encourage voluntary participation, our truncated social desirability scale resulted in unacceptably low reliability. Thus although social desirability was uncorrelated with our diversity measures, we cannot make strong inferences as to whether our participants were responding truthfully to our survey. Even so, the fact that valuing diversity scores reliably predicted objectively measured attitudinal diversity of relationship pairs lends

support to the construct validity of the valuing diversity scale. Future research should use implicit measures to assess attitudes about diversity and investigate their relationship to diverse friendship outcomes.

Our study provides initial evidence that positive beliefs about diversity are predictive of diverse relationships. Due to the correlational nature of the study, however, we cannot draw causal conclusions. Positive diversity attitudes may increase the likelihood of seeking out diverse friends, and having diverse friends may in turn increase one's valuing of diversity. Experimental methods are needed to distinguish between these two possibilities. Another important point for future research to consider is that people who recognize the benefits of diversity may not have had adequate opportunity to pursue diverse relationships. For instance, in relatively homogeneous communities there are fewer opportunities to meet people with different beliefs and backgrounds. Thus valuing diversity in some cases may not predict diverse relationship outcomes. This is why it is important to also consider community-level factors, such as the diversity of people in the community and social norms regarding diversity, in trying to understand the conditions that promote diverse friendship formation.

We were able to rule out the possibility that the JP dyads were more diverse because of greater opportunity to meet attitudinally diverse others (rather than because of their more positive diversity attitudes), by demonstrating that the variances of the attitudes we measured were not different in the two neighborhoods. We also suspect that social norms were more supportive of diversity in JP as compared to the NE, given that on average people in the JP sample valued diversity more highly than in the NE. However, selection bias may have undermined the validity of this aggregate measure. Not everyone that the researchers approached agreed to participate, which means our samples were not fully representative of the people in

each neighborhood. Future research should measure social norms more directly, by asking participants to report their perceptions of the diversity climate separately from their own beliefs about diversity.

Existing literature on cross-group friendships and intergroup contact has focused primarily on racial diversity (Baerveldt, Van Duijn, Vermeij, & Van Hemert, 2004; Smith, Parr, Woods, Bauer, & Abraham 2010). By contrast, we incorporated sexual orientation, political affiliation, religious beliefs, race/ethnicity, social class, and nationality into our measures of social network diversity and valuing diversity. We deliberately employed a broad conception of diversity in order to highlight how celebrating differences of many kinds can promote the formation of diverse relationships. Indeed it is interesting that such a broad measure of valuing diversity was predictive of the much narrower outcome measure of attitudinal diversity. Of course this design choice is also limiting in that we are unable to draw conclusions about which aspects of people's diversity beliefs are most relevant to the formation of attitudinally diverse relationships. Likewise our inclusive definition of diverse friends may mask interesting complexities in which types of diverse friendships are related to valuing diversity. And while investigating attitudinal diversity is a novel approach to assessing relationship diversity, it limits the interpretation of our findings. Future studies should assess other participant characteristics, such as socioeconomic status and ethnicity, to evaluate diverse friendship formation across a wider range of dimensions.

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Notes

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[1] The researchers informed potential participants that only adults at least 18 years of age were eligible to participate, and this information also appeared on the consent form, however four individuals under the age of 18 did complete the questionnaire. Our findings are not changed in any meaningful way if these four cases are excluded from the analysis, therefore all cases were retained.

[2] The complete text of the items can be obtained from the first author.

[3] The proportion data were arcsine transformed prior to analysis to correct for the violation of normality.

[4] Before the dyadic similarity index was calculated the Protestant work ethic and marriage items were reverse-coded so that for all ten attitudes, higher scores reflected more liberal attitudes.

[5] The significance test for positive ICCs is based on the F-distribution for the expression (1-ICC) / (1+ICC) with $n-1$ and n degrees of freedom (where n is the number of dyads) and for negative ICCs it is based on the F-distribution for the expression (1+ICC) / (1-ICC) with n and $n-1$ degrees of freedom, multiplied by two to render the test two-tailed.

[6] The pattern of results does not change if the mean of the dyad members' scores is used in the analysis instead of the highest value.

[7] For comparison, we ran the same analysis using a dyadic index (ICC) of health-related behaviors. Valuing diversity was not a significant predictor of this index, which suggests that our effects are specific to the domain of attitudinal diversity.

[8] The estimation of indirect effects does not require that the total effect of X on Y be significant (Hayes, 2009, pp. 415-418).

Table 1

Sociodemographic diversity of the neighborhoods

	Jamaica Plain	North End
Racial/ethnic composition		
White	53.64%	90.88%
Black/African American	13.45%	1.13%
Hispanic/Latino	21.97%	3.69%
Alaska Native or American Indian	0.22%	0.15%
Asian	7.87%	2.83%
Average Household Income		
Less than $15,000	13.13%	7.81%
$15,000 - $29,999	8.4%	2.33%
$30,000 - $49,999	12.22%	8.64%
$50,000 - $74,999	16.7%	11.24%
$75,000 - $99,999	13.52%	8.27%
$100,000 - $149,999	17.7%	20.69%
$150,000 - $199,999	8.57%	13.79%
Greater than $200,000	9.77%	27.26%

Note. Race/ethnicity data from the U.S. Census 2010, as reported by City of Boston.gov for the

North End (City of Boston, 2014a) and Jamaica Plain (City of Boston, 2014b). Income data as

reported by Sperling's Best Places for the North End (Sperling's Best Places, 2014a) and

Jamaica Plain (Sperling's Best Places, 2014b).

Table 2

Descriptive Statistics and Intraclass Correlations by Sample

	Jamaica Plain			North End			Sample Comparison		
	Mean	SD	ICC	Mean	SD	ICC	*t*	*d*	*z*
Diversity Measures									
Valuing Diversity	5.59	.70		5.24	.82		3.60***	.46	
Proportion of Diverse Friends	.58	.33		.51	.30		1.34	.22	
Attitudes									
Political Beliefs	5.67	1.50	.46***	5.19	1.51	.27*	2.04*	.32	4.74***
Protestant Work Ethic	5.07	1.76	.14	5.82	1.54	.40**	-2.99**	-.45	-6.06***
Gay Marriage Attitudes	1.97	1.98	.56***	2.38	2.19	.64***	-1.31	-.20	-2.69**
Contraception Attitudes	6.55	1.17	.07	6.34	1.52	.38*	1.03	.15	-7.03***
Religion Attitudes	5.85	1.61	.11	5.49	1.81	.49***	1.40	.21	-9.02***
Abortion Attitudes	5.87	1.91	-.06	5.77	1.89	.33*	0.37	.05	-8.72***
Muslim Prejudice	5.18	1.36	-.08	4.98	1.50	.47***	0.97	.14	-12.78***
Welfare Recipients Prejudice	4.84	1.51	-.30*	4.34	1.35	.23	2.29*	.35	-11.70***
Prostitutes Prejudice	4.10	1.77	.05	3.52	1.67	.27*	2.19*	.34	-4.69***

	M	SD	ICC	M	SD	ICC	t	d	Z
Fat Prejudice	4.86	1.52	-.17	4.45	1.70	.02	1.70	-.25	-4.13***
Mean z-transformed ICC			**.09**			**.38**			-6.36***
Health-Related Behaviors									
Smoking	1.79	1.69		2.33	1.99		-1.95	-.29	
Alcohol	2.42	1.60		3.77	2.02		-4.91***	-.74	
Exercise	4.13	1.78		4.59	1.96		-1.64	-.25	
Social Desirability	2.18	1.23		2.57	1.09		-2.22*	-.34	
Pair Descriptors									
Age	32.43	10.15		30.20	10.16		1.46	.22	
Length of Relationship	92.56	104.51		100.96	130.22		-0.47	-.07	

Note. Independent t-tests and effect sizes (Cohen's *d*) are reported for all measures. Intraclass correlations are reported for the 10 attitudes measured. Z-tests compare the z-transformed ICCs in each sample.

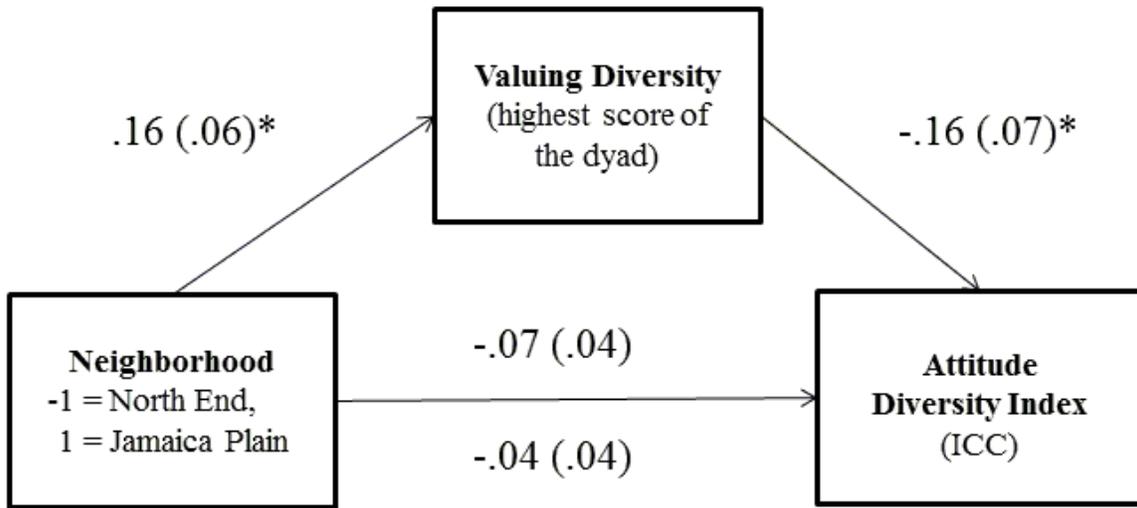*p* < .05. **p < .01. ***p < .001.

Figure 1

Figure Captions

Figure 1. The neighborhood difference in attitudinal diversity of relationship pairs is mediated

by dyads' beliefs about the value of diversity. Higher values on the attitude diversity

index indicate greater similarity. Values are unstandardized regression coefficients;

standard errors are in parentheses. *$p < .05$.