



Report

Superordinate identity and intergroup roommate friendship development

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ABSTRACT

A common ingroup identity promotes positive attitudes and behavior toward members of outgroups, but the durability of these effects and generalizability to relationships outside of the laboratory have been questioned. The present research examined how initial perceptions of common ingroup identity among randomly assigned college roommates provide a foundation for the development of intergroup friendships. For roommate dyads involving students who differed in race or ethnicity, respondents who were low on perceived intergroup commonality showed a significant decline in friendship over-time, whereas those high on perceived commonality showed consistently high levels of friendship. Similarly, participants in these dyads demonstrated a significant decline in feelings of friendship when their roommate was low in perceived commonality but not when their roommate was high in perceived commonality. These effects were partially mediated by anxiety experienced in interactions over-time. The implications of a common identity for intergroup relationship development are discussed.

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Introduction

For both minority and majority group members, intergroup interactions are more anxiety-provoking and fragile than are interactions with racial/ethnic ingroup members (Plant, 2004). At the earliest stages of these interactions, even minor conversational disruptions can amplify discomfort and hinder rapport-building (Dovidio, Gaertner, Kawakami, & Hodson, 2002), which can prompt disengagement from intergroup exchanges (Pearson et al., 2008) and potentially undermine the prejudice-reducing benefits of intergroup contact (Pettigrew & Tropp, 2006). These experiences can adversely affect the development of more sustained interpersonal relationships. Whereas much previous work has focused on this tenuous nature of intergroup dyadic relations, we examined the potential role of an initial superordinate identity in reducing anxiety and, in turn, providing a foundation for building more positive relations over-time between minority and majority group members.

Within the US, race and ethnicity represent primary social categories that can profoundly impact social perceptions that critically shape intergroup relations. Consequently, researchers have proposed several theoretical models for changing the ways that social categories are applied to promote more positive intergroup attitudes and relations (e.g., Brown & Hewstone, 2005; Pettigrew, 1998). One such model, which has received considerable empirical

support with both laboratory-created and “real-world” (e.g., racial, ethnic) social groups (e.g., Nier, Gaertner, Dovidio, Banker, & Ward, 2001), is the Common Ingroup Identity Model. Specifically, the model posits that incorporating members of different groups within a common, inclusive identity can extend the affective and cognitive benefits of ingroup categorization to those formerly seen as members of an outgroup (Gaertner & Dovidio, 2000).

Previous work has revealed consistent support for both the immediate effectiveness of interventions that increase the salience of a common ingroup identity (Gaertner & Dovidio, 2000), as well as the importance of interethnic friendships for improving intergroup attitudes and relations (Eller & Abrams, 2004; Pettigrew, 1998; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). The present research bridges and extends these two lines of research conceptually as well as empirically by focusing on how individual differences in perceived common identity can moderate the formation of intergroup friendships over-time.

The present research goes beyond prior research on intergroup relations in several ways. First, whereas previous research on the Common Ingroup Identity Model has exclusively treated one-group representations as mediators of improved outgroup attitudes, the present study considers individual differences in the extent to which people initially see different racial/ethnic groups within a common identity as a moderator of subsequent intergroup relations. Second, rather than studying the consequences of intergroup friendships, we examined factors that promote or impede the development of friendships over-time. Third, whereas previous work on common identity and intergroup

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contact has typically assessed intergroup relations at a single time point, we examined roommate relationships over a 6-week period during the first-year of college. Given that researchers have questioned whether inducing a common ingroup identity in the laboratory can override powerful racial/ethnic categories on “more than a temporary basis” (Hewstone, 1996, p. 351; see also Brown & Hewstone, 2005; Pettigrew, 1998), studying individual differences in common identity, which are relatively stable (test–retest correlation = .59, $p < .001$ over a 6-week period; West, 2009), may represent a particularly appropriate approach to testing the potential effects of common identity on friendship formation over an extended period.

Our theoretical focus is on how perceptions of common university identity among entering first-year students affect the development of intergroup relative to intragroup friendships for roommate pairs. These perceptions reflect individual differences in the extent to which the superordinate group (the University) is seen as inclusive of people from different backgrounds (members of different racial/ethnic groups) who are members of the superordinate group. To the extent that roommates from different racial/ethnic groups perceive a common ingroup identity for their groups on campus, they should see one another as members of the same-group rather than different groups (Gaertner & Dovidio, 2000), experience less intergroup anxiety (West, Shelton, & Trail, 2009), and develop stronger intergroup friendships with their roommates.

Roommates in college dormitories represent an ideal field setting for experimentally testing the long-term consequences of intergroup, relative to intragroup, contact (Shook & Fazio, 2008; Van Laar, Levin, Sinclair, & Sidanius, 2005). When previously unacquainted college roommates are randomly assigned without regard to race/ethnicity, problems of self-selection are circumvented. This random assignment creates conditions for a natural field experiment on the development of intergroup relationships. Friendship development between roommates from different racial/ethnic groups is of particular interest—not only as a marker of relationship quality at an interpersonal level, but also because of the well-established role of intergroup friendships in reducing prejudice and improving intergroup relations over-time (Eller & Abrams, 2004; Pettigrew, 1998).

We also explored the role of anxiety as a mediator of the relationship between initial perceptions of a common ingroup identity and the development of intergroup friendship. Anxiety can have a range of effects that can influence intergroup bias, including increasing sensitivity to negative cues from outgroup members in interactions (Vorauer, 2006). Nonverbal cues of anxiety are similar to those for aversion, and thus anxiety can communicate bias toward others, which, in turn, can fuel negative reactions and a mutual desire to avoid further contact (Pearson et al., 2008). Gaertner et al. (2000) argued that the initial perception of a common ingroup identity may reduce intergroup anxiety and foster the kinds of positive reciprocal behaviors, such as self-disclosure and helping (Dovidio et al., 1997), that over-time “accelerate the intensity of positive interpersonal interactions” (Gaertner et al., 2000, p. 109). Thus, we anticipated that differences in the anxiety experienced in interactions with one’s roommate over-time would, in part, mediate the relationship between initial perceptions of commonality and subsequent feelings of intergroup friendship.

We adopted a dyadic approach (Actor–Partner Interdependence Model; Kashy & Kenny, 2000) to simultaneously examine the independent effects of both respondents’ (actors) and their roommates’ (partners) initial perceptions of commonality among different racial and ethnic groups on campus on respondents’ feelings of friendship with their roommates. Partner effects (the influence of one’s partner’s perceptions on one’s own responses) have been shown to be especially important in intergroup relationships. Research on college roommates has found that anxiety experienced

by one’s partner is positively associated with anxiety experienced by oneself and less reported interest in future interactions among intergroup, but not intragroup, roommate pairs (West et al., 2009).

We hypothesized that, given documented declines in roommate satisfaction in general (Berg, 1984), feelings of friendship between roommates would generally decrease with time. We further hypothesized that among intergroup roommate dyads, initial perceptions of common identity would moderate this trajectory such that the decline in felt friendship would be less pronounced for respondents with stronger perceptions of common identity. Furthermore, to the extent that perceptions of common identity result in more positive behaviors being displayed toward outgroup members (Dovidio et al., 1997), we hypothesized that interactions with an outgroup roommate who harbors perceptions of a strong common identity would also sustain respondents’ feelings of friendship, independent of the effects of respondents’ own commonality perceptions. Thus, we predicted two independent moderating effects: an effect of respondents’ own commonality on respondents’ changes in friendship (an actor effect), and an effect of respondents’ roommates’ commonality on respondents’ changes in friendship (a partner effect). Given the well-documented role of anxiety in shaping intergroup perceptions and interactions (e.g., Pearson et al., 2008; Plant, 2004), we hypothesized that the actor and partner effects of commonality on changes in friendship would be mediated by the effects of actor and partner commonality on anxiety experienced over-time.

For roommates of the same-race/ethnicity, for whom perceptions of *intergroup* commonality are not directly relevant to their relationship, we did not expect perceptions of commonality to moderate feelings of friendship. Based on previous research (Berg, 1984; Shook & Fazio, 2008), we expected friendships between these roommates would decline over-time.

Method

Participants

Participants were 134 first-year college students at a large Northeastern university in the US who identified themselves as White, Black, Latino/a, or Asian, representing 67 same-sex (45 female) roommate pairs. By university policy, roommates were assigned randomly. Participants were recruited through the psychology department participant pool and through an email sent to a random selection of first-year students. Participants received either partial course credit or \$20 and entry in a random drawing for \$100 dollars if they completed all of the surveys. The sample consisted of 47 same-group (45 White–White, 1 Black–Black, and 1 Latino–Latino) and 20 (5 Black–White, 6 Latino–White, 9 Asian–White) minority–majority cross-group dyads. This distribution reflected the representations of students of different racial and ethnic backgrounds in the participant pool.

Procedure

Participants, in a study described as investigating “college roommate relationships,” first individually completed an online questionnaire during the second week of the Fall semester that contained several demographic questions, including race/ethnicity and gender, and two items assessing perceptions of common identity among members of different racial and ethnic groups on campus (see Gaertner & Dovidio, 2000; Gaertner, Rust, Dovidio, Bachman, & Anastasio, 1996). The items, which were significantly correlated, $r(132) = .58$, $p < .001$, were: “Regardless of our racial/ethnic group memberships, on campus it usually feels as though we are all members of one group,” and, “On campus, I think of

people in terms of their affiliation with the University of ____ without thinking of their racial/ethnic group" (1 = *strongly disagree* to 7 = *strongly agree*). Respondents' and roommates' perceptions of commonality were uncorrelated at the start of the study: *intraclass* $r = -.015$, $p = .90$. In this session, participants also completed a series of items assessing their prior and present contact with members of another racial group. Participants rated the level of intergroup contact in their neighborhood, elementary school, and high school on a scale of 1 (entirely people of my racial group) to 5 (entirely people of another racial group). These three items were averaged to create a measure of prior interracial contact (correlations between items ranged from .65 to .78). Current interracial contact was measured by asking participants to rate their "close friendships now" using the same 1–5 scale.

Beginning the third week of the semester, participants completed an online diary privately every Monday and Thursday for five weeks and on Monday of the sixth week, yielding a total of 11 survey responses. The two primary measures of interest related to anxiety experienced during interactions with one's roommate and personal feelings of friendship.

Anxiety

Participants were asked to rate how they felt when interacting with their roommate on a series of emotion items. Of primary interest in the present research were participants' ratings of anxiety, reflected in the degree to which they felt *anxious*, *tense*, *self-conscious*, *uncertain*, and *uncomfortable* (items adapted from Britt, Boniecki, Vescio, Biernat, & Brown, 1996, and Stephan & Stephan, 2000) during their interactions with their roommate, using a 1 (*not at all*) to 7 (*very much*) scale. Items were averaged and the measure was reliable at all time points, α s ranged from .86 to .94, average $\alpha = .90$.

Friendship

Participants completed three items assessing feelings of friendship with their roommate using a 1 (*strongly disagree*) to 7 (*strongly agree*) scale: "My roommate and I are becoming close friends," "I am completely myself when I am around my roommate," and, "It is easy to express who I really am when I am with my roommate." This composite measure captures general perceptions of friendship, and feelings of authenticity and ease of self-disclosure, important predictors of intimacy during early stages of relationship formation (Reis & Patrick, 1996). The measure was reliable at all time points, α s ranged from .86 to .93, average $\alpha = .90$.

Results

Preliminary analyses revealed no systematic differences in the responses of Black, Latino/a, and Asian participants when examined separately or in Whites' responses to roommates from these different groups within cross-group dyads. Thus, our analyses focused on students from majority (White) versus minority (Black, Latino/a, or Asian) groups. Additionally, majority and minority students did not differ in their levels of perceived commonality, $p = .27$. No significant gender differences were found in anxiety and friendship, therefore gender was excluded from the main analyses.

Analytic strategy

We examined how initial perceptions of commonality and roommate composition interacted to predict respondents' feelings of friendship over the 6-week period. Data were analyzed using multilevel modeling to control for nonindependence in roommates' responses. Actor–Partner Interdependence Models (APIM;

Kashy & Kenny, 2000) simultaneously estimated the effects of respondents' (actor) and their roommates' (partner) perceptions of commonality on respondents' feelings of friendship over-time.

To examine effects of group membership, we used a factorial approach described by West, Popp, and Kenny (2008) that treats the dyad composition (same-group versus cross-group) as an interaction of two factors in a 2 (Respondent Group Membership: Majority versus Minority) \times 2 (Roommate Group Membership: Majority versus Minority) factorial design. To examine over-time effects, we estimated a series of linear growth curve models (Kenny, Kashy, & Cook, 2007; see also Kashy, Donnellan, Burt, & McGue, 2008). Degrees of freedom were calculated using the Satterthwaite method (see Kenny et al., 2007), which considers the intraclass correlation between respondents' and roommates' measures and can yield fractional degrees of freedom. All variables were grand-mean centered and Time was centered at the study mid-point.

Friendship

Consistent with prior research (Berg, 1984), a main effect of Time was found, $t(61.7) = -3.18$, $p = .002$. Feelings of friendship generally declined over the 6-week period. In addition, the predicted Respondent Group Membership \times Roommate Group Membership \times Respondent Commonality \times Time interaction (actor effect) was obtained, $t(82.4) = -3.99$, $p < .001$. This effect indicates that a linear change in feelings of friendship for respondents in cross-group compared to same-group dyads was moderated by respondents' own perceptions of commonality. In addition, the predicted Respondent Group Membership \times Roommate Group Membership \times Roommate Commonality \times Time interaction (partner effect) was simultaneously obtained, $t(83.9) = -2.79$, $p = .007$, indicating that a linear change in respondents' feelings of friendship was also moderated by their roommates' perceptions of commonality, in cross-group compared to same-group dyads. Below, we consider these two different effects (actor and partner effects) separately, first for cross-group dyads and then for same-group dyads.

Cross-group dyads

Fig. 1 displays predicted mean levels of friendship for cross-group respondents who were high and low (± 1 SD) on commonality (actor effect, Fig. 1a) and for respondents with roommates who were high and low on commonality (partner effect, Fig. 1b). As seen in Fig. 1a, cross-group respondents' own perceptions of commonality moderated their changes in friendship with their roommate, $t(89.1) = 3.84$, $p < .001$. As predicted, respondents in cross-group dyads who were low on commonality showed a significant decline in friendship over-time, $t(83) = -4.46$, $p < .001$. In contrast, those high in perceived commonality exhibited a nonsignificant increase in reported friendship over the 6-week period.

To unpack this result further, we conducted supplementary analyses separately for White and minority respondents in the cross-group dyads. This Respondent Commonality \times Time (actor) effect was significant for both White respondents, $t(88.7) = 3.01$, $p = .003$, and minority respondents, $t(93.1) = 2.68$, $p = .009$, and were of similar form. Declines in feelings of friendship occurred over-time for White, $t(88.6) = -3.33$, $p = .001$, and minority, $t(94.6) = -3.49$, $p < .001$, respondents who were low in commonality. However, a marginal increase was found for White respondents, $t(89.2) = 1.87$, $p = .06$, and no change over-time was found for minority respondents, $t(94.5) = .19$, $p = .85$, who were high in commonality.

Also consistent with predictions (see Fig. 1b), cross-group respondents' roommates' perceptions of commonality also moder-

Cross-Group Dyads

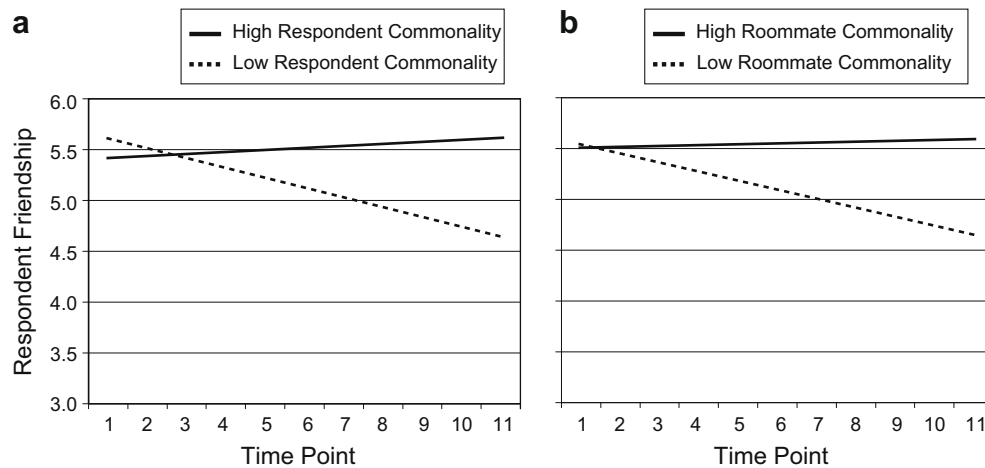


Fig. 1. Changes in cross-group respondents' feelings of friendship (scale from 1 to 7) as a function of (a) respondents' (*actor*) and (b) their roommates' (*partner*) perceptions of commonality. Larger values indicate stronger feelings of friendship.

ated respondents' changes in friendship (*partner* effect), Roommate Commonality \times Time effect, $t(92.5) = 2.55$, $p = .01$. When roommates were low on commonality, respondents' feelings of friendship declined significantly over-time $t(84) = -3.44$, $p < .001$. However, similar to the actor effect, respondents showed consistently high levels of friendship across the 6-week period when their roommates were high in commonality, $t(82.3) = .59$, $p = .56$.

We also examined this effect separately for minority and White respondents in cross-group dyads. The Roommate Commonality \times Time effect was significant for minority respondents, $t(94.8) = 2.42$, $p = .018$. Specifically, whereas minorities with White roommates who were low on commonality showed a significant decline in reported friendship, $t(93.4) = -3.42$, $p < .001$, minorities with White roommates who were high on commonality showed no such decline in reported friendship with their roommate, $t(96.4) = .084$, $p = .41$. These participants' feelings of friendship remained consistently high across the 6-week period. Thus, minorities' feelings of friendship were systematically influenced by their White roommates' perceptions of commonality. For White respondents, the Roommate Commonality \times Time effect was not significant, $t(89.1) = 1.06$, $p = .30$. The pattern was similar to that of minorities but weaker. There was a nonsignificant decline in friendship over-time for Whites with minority roommates' who were low on commonality, $t(89.5) = -1.55$, $p = .12$, and no change over-time for Whites with minority roommates who were high on commonality, $t(89) = -.09$, $p = .93$.

Same-group dyads

Intergroup commonality, in terms of respondents' own perceptions (*actor* effect) or their roommate's perceptions (*partner* effect), was expected to be largely irrelevant for *intragroup* relations. Indeed, as seen in Fig. 2a, in which the effect of respondents' own perceptions of commonality (*actor* effect) is shown, only a main effect of Time was obtained, $t(61.4) = -2.57$, $p = .01$. Feelings of friendship generally declined over-time. Moreover, this decline was observed for respondents low, $t(67.5) = -2.02$, $p = .05$, and high, $t(63.1) = -2.53$, $p = .01$, in perceived commonality. Also, as seen in Fig. 2b, in which the effect of roommates' perceptions of commonality (*partner* effect) is shown, declines in friendships occurred for respondents with roommates who were low,

$t(61.4) = -2.57$, $p = .03$, and high, $t(63.1) = -2.36$, $p = .02$, in commonality. No other effects were significant.¹

Anxiety as a mediator of the commonality effects

To test whether the effects of commonality on changes in friendship were mediated by levels of anxiety experienced in roommate interactions over-time, we employed a four-step analytic strategy based on Baron and Kenny (1986) and adapted for the APIM (West et al., 2008). Respondent and roommate commonality and their interactions with time were treated as simultaneous initial predictors (with all lower-order effects included); respondent and roommate anxiety were included as potential mediators; and respondents' reported feelings of friendship was the outcome. Given that commonality did not predict changes in friendship for respondents in same-group dyads, we tested for mediation effects only for cross-group dyads.

In Step 1, we tested the paths from the Respondent Commonality \times Time (*actor* effect) and Roommate Commonality \times Time (*partner* effect) interactions to the outcome variable, respondent friendship. As previously reported, both effects were significant ($ps < .001$ and $.01$, respectively). In Step 2, we tested the paths from Respondent Commonality \times Time (*actor* effect) and Roommate Commonality \times Time (*partner* effect) to the mediator, respondent anxiety. Although we predicted that both Respondent Commonality \times Time and Roommate Commonality \times Time would predict changes in anxiety over-time, only the Respondent Commonality \times Time interaction (an actor effect on anxiety) was significant, $t(103) = -2.24$, $p = .03$, indicating that only participants' own commonality (not their roommates' commonality) moderated changes in their reported anxiety with their roommates over-time.

¹ Although a balanced design is needed to test all effects of interest, we conducted a set of alternative analyses omitting the minority same-group dyads because of their small number and also to compare our results directly to those of other studies in this area. Two contrasts were performed: (a) same-group White dyads were compared to cross-group dyads and (b) within cross-group dyads, responses of Whites to minorities were compared. Similar results as those reported were obtained, however with two main differences: Same-group White dyads showed higher overall levels of friendship than cross-group dyads, $t(121) = 2.03$, $p = .044$, replicating previous research testing a similar comparison (Shook & Fazio, 2008), and the Respondent Commonality \times Time interaction on anxiety was significant for Whites in cross-group dyads, $t(106) = -2.48$, $p = .01$. Although they demonstrated a similar trend, this latter effect was not significant for minorities in cross-group dyads, $t(114) = -.48$, $p = .63$.

Same-Group Dyads

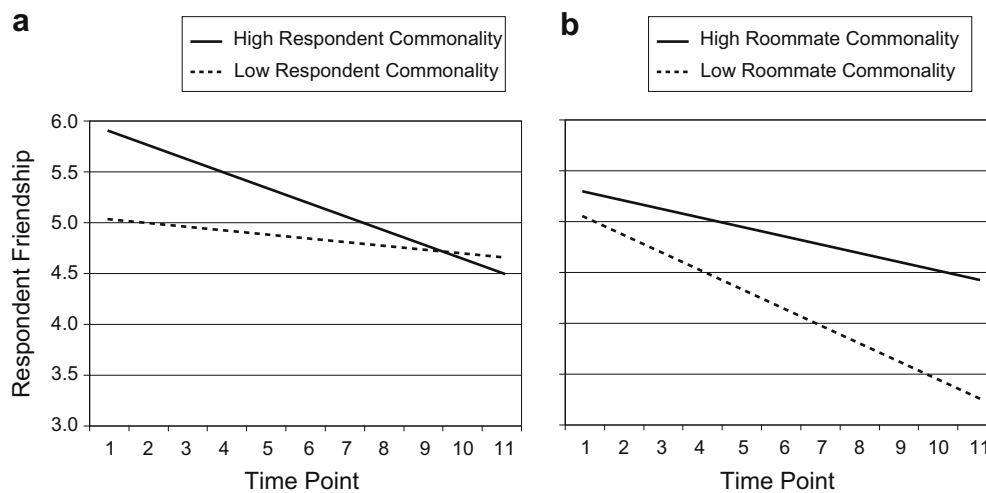


Fig. 2. Changes in same-group respondents' feelings of friendship (scale from 1 to 7) as a function of (a) respondents' (*actor*) and (b) their roommates' (*partner*) perceptions of commonality. Larger values indicate stronger feelings of friendship.

Whereas respondents who were high on Commonality showed a linear decline in their own anxiety during interactions with their roommate, $t(82.8) = -3.61$, $p < .01$, those low on Commonality showed no reduction in anxiety over-time, $t(88) = -.33$, $p = .74$.

Steps 3 and 4 were estimated simultaneously. In Step 3, we estimated the effects of Respondent Anxiety and Roommate Anxiety on respondent friendship with respondent and roommate commonality effects included in the model. The effect of Respondent Anxiety and Roommate Anxiety on respondent friendship were both significant, $t(1247) = -10.14$, $p < .001$, and $t(1247) = -5.85$, $p < .001$, respectively, indicating that both respondents' own anxiety and their roommates' anxiety (*actor* and *partner* anxiety) predicted respondents' feelings of friendship. In Step 4, consistent with partial mediation, when Respondent Anxiety and Roommate Anxiety were included in the model, the previously reported Respondent Commonality \times Time and Roommate Commonality \times Time effects on respondent friendship were reduced but remained significant, $t(96.6) = 3.38$, $p = .001$, and $t(96.6) = 2.24$, $p = .03$, respectively. Declines in participants' own anxiety in interactions with their roommates over-time mediated the effects of their initial perceived commonality on their own feelings of friendship with their roommate (Sobel $z = 2.24$, $p = .025$) and also their roommate's reported feelings of friendship with them (Sobel $z = 2.15$, $p = .032$). In summary, harboring strong perceptions of intergroup commonality may, thus, help to foster and maintain mutual feelings of friendship in both respondents and their cross-group roommates by lessening the anxiety one experiences in these interactions over-time.

Supplementary analyses for intergroup contact

Because commonality represented an individual difference variable in the present research, we also tested the effects of a potentially related and widely researched variable (Pettigrew & Tropp, 2006), intergroup contact, as a moderator of friendship development. It is possible, for example, that individuals with more previous interracial contact would be more likely to develop friendships with roommates from another race/ethnicity, as well as have a stronger commonality representation.

In the present study, commonality and intergroup contact were moderately correlated (prior interracial contact $r = .12$, $p = .15$; current interracial contact $r = .24$, $p = .005$). We conducted two sets of

analyses. First, to examine whether contact functioned in the same way as commonality for friendship formation and anxiety, we treated the two types of contact as alternative moderators in analyses that paralleled those that we performed with commonality as a moderator. We found no significant interactions with the race variables for either prior or present contact. Second, to examine whether the effects of perceived commonality operate independent of contact, we controlled for the contact variables in all of the commonality analyses. We found that including these variables did not change the results reported: Respondent Group Membership \times Roommate Group Membership \times Respondent Commonality \times Time interaction (*actor* effect), controlling for contact variables, $t(82.5) = -4.01$, $p < .001$; Respondent Group Membership \times Roommate Group Membership \times Roommate Commonality \times Time interaction (*partner* effect), $t(84) = -2.80$, $p = .006$.

Discussion

In support of the Common Ingroup Identity Model (Gaertner & Dovidio, 2000), which identifies the critical role of higher level social categorization in intergroup relations, we found that initial perceptions of a common identity among members of different racial and ethnic groups on campus moderated the trajectory of intergroup friendship over a 6-week period. Roommates in cross-group dyads who perceived more commonality between groups did not show the typical decline in friendship across time that is often observed in studies of roommate relationships (e.g., Berg, 1984), and indeed, that was observed in the present study among cross-group respondents with low perceived commonality and generally among same-group roommates.

Not only did participants' own perceptions of commonality affect their felt friendship with their cross-group roommates over-time, but their *roommate's* commonality perceptions exerted an independent influence on their friendship assessment as well. Notably, roommate perceptions of commonality had a particularly strong effect on the friendship perceptions of minority students who had White roommates. Minority students who had White roommates with low perceptions of commonality showed a steep decline in friendship over-time, whereas those who had White roommates with high perceived commonality showed no decline in friendship. Thus, whereas previous research has demonstrated that minorities are vigilant in intergroup interactions and attend

to cues of rejection and bias (Vorauer, 2006), the present research reveals that they may also be attuned to Whites' inclusive signals and categorization tendencies.

Our finding that perceptions of commonality did not relate to friendship in intragroup roommate dyads, which were included in the design for comparison, suggests that these perceptions were specific to the intergroup domain and did not represent a more general positive trait orientation toward others (e.g., agreeableness). Moreover, although positive intergroup contact may often create stronger feelings of commonality across group lines (Gaertner et al., 1996), in the present study, the effects of perceived commonality predicted the formation of intergroup friendships beyond measures of prior and present intergroup contact, including current cross-group friendships outside of the roommate context. This latter finding is important methodologically because it helps to rule out some third-variable explanations such as a general social desirability response bias. Moreover, the finding that minority roommates with Whites who were higher in perceived commonality reported stronger friendships over-time suggests that the main results are not simply due to Whites' social desirability concerns or other biases in reporting. The presence of a *partner* effect of commonality for minorities represents important validation of the friendship report provided by White respondents.

The present research, which illustrates the importance of considering the effects of perceived commonality at both the actor and partner levels on intergroup contact, extends work on the Common Ingroup Identity Model (Gaertner & Dovidio, 2000) in two fundamental ways. First, the present work identifies an important proximal mediator of the effects of harboring a common identity on the development of intergroup friendships: declines in respondents' reported anxiety with their roommates over-time (see Johnson et al., 2006). Second, the present research revealed evidence of *interpersonal* effects of commonality operating on intergroup friendship development. Dovidio, Hebl, Richeson, and Shelton (2006) posited that because many of the nonverbal behaviors emitted when people experience anxiety (e.g., averted gaze) can also communicate dislike, intergroup anxiety may also influence others' judgments of friendliness in intergroup interactions. In support of this hypothesis, we found evidence that for intergroup dyads, respondents' roommates' anxiety (moderated by the roommates' commonality perceptions) also influenced respondents' friendship perceptions over-time. Moreover, having a roommate who has strong perceptions of intergroup commonality was found to be particularly beneficial for minorities. This finding has important practical implications for improving the effectiveness of intergroup contact for minorities, who generally do not benefit as much as Whites from intergroup contact (Tropp & Pettigrew, 2005).

Although the present findings are consistent with and supportive of the Common Ingroup Identity Model (Gaertner & Dovidio, 2000), we acknowledge some limitations of the present work. Although there were experimental aspects of the present design (i.e., random assignment of roommates by race/ethnicity), we note that perceptions of commonality were measured, rather than manipulated, at the beginning of the semester. As a result, causal inferences concerning the effects of commonality are unwarranted. Nevertheless, we chose to focus on perceptions of commonality as an individual difference measure to establish the role that enduring group representations can play in moderating the development of cross-group relationships over-time. Given the encouraging results of the present research, future research might examine the efficacy of different interventions designed to create perceptions of commonality prior to contact. In addition, assessing perceptions of commonality at the dyadic level (i.e., with one's interaction partner), in addition to perceptions of intergroup commonality between groups on campus (as in the present research), may yield

additional insights into the effects of commonality on the development of close intergroup relationships.

In contrast to previous research on college roommates (e.g., Shook & Fazio, 2008; Trail, Shelton, & West, 2009), in the present study, relations between cross-group roommates were not less positive overall than those between same-group roommates. However, this null result was found to be driven by the inclusion of two same-group minority roommate pairs (one Black–Black and the other Latino–Latino). Indeed, excluding these two dyads produced results consistent with prior work showing lower overall friendship for cross-group, relative to same-group roommates, but did not alter our other primary findings (see Footnote 1). Whereas a previous study found that same-race minority dyads tend to develop stronger friendships than cross-race roommates (Trail et al., 2009), the minority–minority dyads in our study reported relatively low feelings of friendship overall. Thus, future research might seek to incorporate a larger same-group minority sample to better understand important factors that shape or moderate roommate relationships for members of minority groups.

Future research might also investigate the nature of the interpersonal processes that are influenced by perceived commonality and contribute to the maintenance intergroup friendships. Candidate processes may involve a variety of personalizing behaviors, such as greater self-disclosure or engagement in more cooperative activities, that can reduce intergroup interaction anxiety (see Gaertner & Dovidio, 2000; and Kenworthy, Turner, Hewstone, & Voci, 2005). Future studies might thus incorporate more detailed diary procedures or behavioral observations to illuminate the potential roles of these and other processes in the development of close intergroup relationships.

Although our findings demonstrate the value of a superordinate identity in the context of repeated interactions among members of different racial and ethnic groups, they do not challenge the effectiveness of other category-based approaches for reducing intergroup bias. Indeed, the perception of a common identity may provide the psychological foundation that permits personalizing exchanges to occur (see Brewer & Miller's (1984) Personalization Model) or cooperative relations to develop (see Brown & Hewstone's (2005) Intergroup Contact Model). These different category-based approaches may be seen as complementary to understanding intergroup relations, in general, and intergroup roommate relationships, in particular.

In conclusion, whereas previous research has emphasized the social and psychological challenges of intergroup interaction, the present research demonstrates the value of inclusive social categorization for the development of close personal relations between members of different racial and ethnic groups over-time. A consideration of both actor and partner effects reveals the importance of examining not only the role of individual cognitions in intergroup contact but also their dynamic interplay in the context of both initial and sustained social exchanges. Intergroup *relations* may best be understood, theoretically and practically, in this context of dynamic relationships.

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