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What is This?

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From strangers to friends:
The interpersonal process model
of intimacy in developing
interracial friendships

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──────────── ABSTRACT ────────────

We examine the processes involved in the development of
interracial friendships. Using Reis and Shaver's intimacy model,
we explore the extent to which disclosure and perceived
partner responsiveness influence intimacy levels in develop-
ing interracial and intraracial friendships. White and ethnic
minority participants completed diary measures of self and
partner disclosure and partner responsiveness every two weeks
for 10 weeks about an in-group and an out-group person whom
they thought they would befriend over time. The results
revealed that perceived partner responsiveness mediated the
relationships between both self and partner disclosure and
intimacy in interracial and intraracial relationships. The impli-
cations of these results for intergroup relations are discussed.

KEY WORDS: friendships • intergroup contact • interracial friend-
ships • intimacy model • self disclosure

People like to establish intimate friendships with others. To create and maintain friendships, people engage in a variety of behaviors, including revealing information about themselves and responding in a supportive manner to information that their friends reveal to them (Reis & Patrick, 1996). Although researchers have explored the behaviors contributing to the development of friendships (e.g., Blieszner & Adams, 1992; Fehr, 1996; Hays, 1985), and close relationships more generally (e.g., Reis & Shaver, 1988), the development of intergroup friendships has been understudied. This omission is unfortunate, because it is the intimate, personal connection associated with friendships that improves intergroup relations (Emerson, Kimbro, & Yancey, 2002; Levin, van Laar, & Sidanius, 2003; Pettigrew & Tropp, 2000). This improvement occurs, in part, because out-group friends reduce people's anxiety and negative expectations about intergroup experiences (Page-Gould, Mendoza-Denton, & Tropp, 2008; Paolini, Hewstone, Voci, Harwood, & Cairns, 2006). But what are the interpersonal processes associated with developing an intergroup friendship, and do these processes parallel those involved in intragroup friendship?

The present research aims to close the gap in the literature on the processes associated with intergroup friendship development. We explore the roles of disclosure – by self and partner – and perceived partner responsiveness, constructs that are known to be instrumental in close friendships (Gore, Cross, & Morris, 2006), particularly in interracial friendship development. Using a diary methodology, we explore the extent to which white and black participants differ in their levels of self disclosure, partner disclosure, and perceived partner responsiveness during weekly interactions with a white and a black person whom participants did not know very well, but thought they may become friends with over time. In addition, we examine the relationship between disclosure and perceived partner responsiveness in setting the stage for intimacy at the outset of interracial friendships.

Interpersonal process model of intimacy

According to Reis and Shaver (1988; see Reis & Patrick, 1996, for an expansion), intimacy is a transactional process whereby two key components – self disclosure and perceived responsiveness – facilitate or hinder a close connection between people. Specifically, the intimacy process is initiated when a person (speaker) discloses personal information and feelings to a partner (listener). The listener responds by also disclosing personal information and feelings. More importantly, for the interaction to be perceived as intimate, the speaker must interpret the listener's response as understanding, validating, and caring. In fact, Reis and Patrick (1996) suggest than the interpretation of the listener's response is more important for developing intimacy than the speaker's actual disclosure. Thus, according to the model, self disclosure and partner disclosure both predict intimacy, with perceived partner responsiveness as the key mediating factor in the model.

In an initial test of the interpersonal process model of intimacy, Laurenceau, Feldman-Barrett, and Pietromonaco (1998) asked college students to provide in-the-moment ratings of self disclosure, perceived partner disclosure, and perceived partner responsiveness during every social interaction for one week (Study 1) or two weeks (Study 2). Consistent with the model, self disclosure and partner disclosure predicted intimacy, and these relationships were partially mediated by perceived partner responsiveness (Laurenceau et al., 1998). In addition, emotional disclosure was more strongly related to intimacy than factual disclosure. Additional support for the model has been illustrated using cohabiting couples (Lippert & Prager, 2001), married couples (Laurenceau, Feldman-Barrett, & Rovine, 2005), and couples coping with a difficult life stressor (Manne et al., 2004).

Building upon this previous work, we assess the different components of the intimacy process as people develop interracial and intraracial friendships. First, we examine mean differences in disclosure, perceived partner responsiveness, and intimacy in interracial and intraracial interactions in which people have the potential to establish a friendship. Second, we explore the relationships between these three constructs as posited by Reis and Shaver (1988), assessing the similarities and differences across interracial and intraracial relationships.

Self disclosure

Self disclosure refers to revealing personal facts, thoughts, and emotions to a partner (Altman & Taylor, 1973). Disclosure between two people in an interaction is often reciprocal; people are more likely to disclose to others who disclose to them (Derlega, Metts, Petronio, & Margulis, 1993). As long as people's level of self disclosure does not exceed social norms (i.e., by disclosing too much too soon), self disclosure is positively related to liking (Collins & Miller, 1994). Specifically, people tend to disclose more to partners whom they like, and partners tend to like people as a result of having been disclosed to during interactions. These patterns have been demonstrated in intragroup and intergroup contexts. With respect to an intergroup context, for example, black interviewees disclosed more information to a white interviewer who disclosed (versus did not disclose) personal information to them; the black interviewees also liked the white interviewer who disclosed information more than the one who did not (Berg & Wright-Buckley, 1988). In addition, out-group members who reveal self-disclosing information are perceived as more trustworthy and desirable as friends (Ensari & Miller, 2002).

As most of the research on self disclosure in an intergroup setting manipulates disclosure, we know very little about the extent to which people spontaneously reveal personal information in interracial interactions. We do know that when asked to imagine having a discussion with a partner, whites are less willing to discuss intimate topics with a black partner than with a white partner (Johnson, Olson, & Fazio, 2009), undermining their potential to enhance affinity. Moreover, although whites are willing to discuss controversial, race-related topics with a black partner, they are most willing

to do so when the black partner initiates the discussion (Johnson et al., 2009). Expanding on this laboratory research, in the present research we explore both whites' and blacks' levels of self disclosure with an in-group and an out-group member whom they wish to befriend in their everyday lives. Although people may have a desire to develop a friendship with someone from another racial group, fears and anxieties about their own ability to do so (Plant & Devine, 2003), as well as their doubts that the out-group person is interested in doing so (Shelton & Richeson, 2005), may interfere with their desire to reveal personal information about themselves.

Perceived partner responsiveness. Individuals' perceptions of their partners' responsiveness to self disclosure is crucial for the development of intimacy. People need to feel as though their partner understands who they are, values and respects them and their perspective, and cares for them as a person. Opening up to someone who is disengaged or responds in a distant way can be devastating, and it could inhibit people from moving forward to form a close bond. Indeed, research has shown that whites who feel as though their (perceived) communicated interest in getting to know a Chinese partner is not reciprocated eventually become disengaged from pursing a friendship with that person (Vorauer & Sakamoto, 2006).

Often a partner's response to a person's self disclosure is ambiguous and subtle, leaving room for doubt as to whether these behaviors indeed signal genuine caring. Expectations, motives, goals, and fears influence how people interpret responses and the extent to which they believe that their partners care about their welfare (Reis & Patrick, 1996). These influences can inhibit interracial relationship development because expectations are negative and fears are high (Mallet, Wilson, & Gilbert, 2008; Mendes, Blascovich, Hunter, Lickel, & Jost, 2007). As a result, whites and blacks are likely to have trouble accurately interpreting their partners' responsive behaviors. For example, whites and blacks have trouble reading each other's emotions (Elfenbein & Ambady, 2002; Gray, Mendes, & Denny-Brown, 2008). Gray et al. (2008) found that people were better at recognizing an in-group, compared to out-group, member's anxiety during a stressful interaction. The inability to recognize out-group members' emotions accurately can have deleterious consequences, including potentially construing an out-group member's neutral, emotionless expression as hostile and threatening (Butz & Plant, 2006). Thus, when individuals disclose personal information that reveals their vulnerabilities to an out-group partner, the partner may fail to recognize the emotions expressed in the disclosure, and the discloser may misinterpret the partner's genuinely empathetic response as instead reflecting a negative emotion (e.g., disapproval).

Intimacy model and interracial friendship development
Given the general course of friendship development, we expect that the interpersonal processes involved in facilitating intimacy should be the same across interracial and intraracial friendships. That is, self disclosure and partner disclosure should be positively related to intimacy in both intra-

and interracial friendships, and those relationships should be mediated by perceived partner responsiveness. Perceived partner responsiveness is likely to be an important factor for whites in developing interracial friendships due to whites' concerns with appearing prejudiced during interracial interactions (Vorauer, 2005). These interpersonal prejudice concerns play a role in whites' desire to be liked by ethnic minorities in interracial interactions (Bergsieker, Shelton, & Richeson, in press). One way that whites may determine whether their minority partner indeed likes them is by assessing their partner's responsiveness to them during interactions. The more responsive whites perceive their ethnic minority partner to be, the more they will think their partner likes them, which, in turn should strengthen whites' own level of intimacy with their partner.

Perceived partner responsiveness is also likely to be important for blacks in developing interracial friendships because of their concerns with being the target of prejudice. Because their group is often the target of racial bias, blacks are likely to believe that they will be perceived through the lens of racial prejudice. As a result, blacks may focus on whites' responses to their self disclosure in order to determine whether they can trust whites or should expect to be treated in a prejudiced manner. Therefore, interpersonal concerns with prejudice may increase the extent to which whites and blacks care about how their partner responds to them during interactions.

The present research

In the present research, we examined the roles of self disclosure and perceived partner responsiveness in interracial and intraracial friendship development. We had white and black participants select a white and a black person whom they did not know very well at the beginning of the study but wanted to befriend over time. Every two weeks, across a total of 10 weeks, participants completed a questionnaire about the nature of the interactions they had with these two people during the past two weeks. We examined two sets of predictions. First, we examined mean differences in self disclosure, partner disclosure, and perceived partner responsiveness as a function of participants' race and race of their potential friend. We predicted that whites and blacks will reveal an in-group bias, such that they will report higher levels of self disclosure, partner disclosure, and perceived partner responsiveness with an in-group compared with an out-group person whom they are befriending. Second, we examined Reis and Shaver's (1988) intimacy model for interracial and intraracial friendships among white and black participants. We predicted that, for both black and white participants, self disclosure and perceived partner disclosure will enhance intimacy in both interracial and intraracial friendships, and perceived partner responsiveness will mediate these relationships. Moreover, we predict that the intimacy model will be significant for both whites and blacks.

Method

Participants

We recruited 50 white and 24 black students to participate in a study on friendship development for $50 and a chance to win additional monetary prizes in a drawing. The sample consisted of 42 females (14 black and 28 white) and 32 males (10 black and 22 white).

Procedures

Upon agreeing to participate in the study, all participants attended an orientation session where they were told that they would select two people of their same sex whom they did not know very well at that time but might become good friends with as the semester progressed. We required the participants to select a white and a black potential friend. In addition, we told the participants that they would complete a questionnaire about each of the potential friends every two weeks for the next 10 weeks. We emailed reminders to all participants on the day the questionnaires needed to be completed. The participants completed the questionnaires online or in pencil-and-paper format. We gave participants who completed the questionnaire via hardcopy a campus mail envelope to return the questionnaires as soon as they completed them every two weeks. At the end of the 10-week period, the participants attended a post-study session where they completed a final questionnaire, were informed of the purpose of the study, and received their payment.

Measurement

At the beginning of the study, participants indicated their friends' race and gender. Every two weeks, we instructed participants to reflect upon the interactions they had with each friend over the previous two weeks.

Self disclosure. Participants rated the degree to which they disclosed their feelings ("How much of your feelings did you express to your friend?") and personal information ("How much personal information [e.g., information about you personally and your views] did you disclose to this friend during your interactions?") to their two friends, using a 7-point scale (1 = *very little*, 7 = *very much*). We combined both items to form two self-disclosure composites: a white friend self-disclosure composite (Cronbach's α = .81 at Time 1) and a black friend self-disclosure composite (Cronbach's α = .88 at Time 1).

Perceived partner disclosure. Participants rated the degree to which they believed each friend disclosed his or her feelings ("How much of his/her feelings did your friend express to you?") and personal information ("How much personal information [e.g., information about his/her personally and his/her views] did your friend disclose during your interactions?") to the participants, using a 7-point scale (1 = *very little*, 7 = *very much*). We combined both items to form a perceived partner disclosure with a white

friend composite (Cronbach's α = .88 at Time 1) and a perceived partner disclosure with a black friend composite (Cronbach's α = .88 at Time 1).

Perceived partner responsiveness. Participants rated the degree to which they felt understood ("How well do you feel your friend understands you?"), accepted ("During these interactions, how much did you feel that you were accepted by your friend?"), and cared for ("During these interactions, how much did you feel that you were cared for by your friend?"), using a 7-point scale (1 = *very little*, 7 = *very much*). We combined the three items to form a perceived partner responsiveness with white friend composite (Cronbach's α = .86 at Time 1) and a perceived partner responsiveness with black friend composite (Cronbach's α = .85 at Time 1).

Intimacy. Participants indicated how close they felt to each friend ("Relative to all your other relationships, how would you characterize your relationship with your friend?"), using a 7-point scale (1 = *not at all close*, 7 = *extremely close*). Similar to Laurenceau et al. (2005), we used the word closeness, rather than intimacy, to capture psychological closeness instead of sexual closeness/intimacy. In addition, participants indicated how much they liked each friend ("Compared to other friends you have, how much do you like this friend?"), using a 7-point scale (1= *not at all*, 7 = *a great deal*). We combined the items to form an intimacy with white friend composite (Cronbach's α = .70 at Time 1) and an intimacy with black friend composite (Cronbach's α = .80 at Time 1).

Analytic strategy
In the present data, there are three factors: time, partner (in-group or out-group friend), and participant race (white or black). Our data conform to a two-level multilevel structure, with Level 1 being time and Level 2 being participant race, and because the level of time is the same for the ratings of the two partners for each participant, the data are crossed (i.e., the data are not a 3-level model where time points are nested within partners, and partners are nested within participants). Level 1 data were measured for each partner at each time point, and include self disclosure, perceived partner disclosure, perceived partner responsiveness, and intimacy. The Level 2 data unit was the participant; at Level 2, participant race and friend race were included. Given the multilevel structure of the data, the data must be analyzed using a multilevel modeling procedure to control for the non-independence of responses. Our model is an elaboration of Kenny, Kashy, and Cook's (2006) one-with-many model, which is estimated using the PROC MIXED procedure in SAS. Data are considered one-with-many because the participant (i.e., the one) reported on two friends (i.e., the many). The analysis strategy used allows us to simultaneously examine within-subject and between-subject variation.

Two sets of models are reported. In the first set of models, linear changes across time in self disclosure, perceived partner disclosure, perceived partner responsiveness, and intimacy were examined. In addition, participant race,

friend race, and the participant race by friend race interaction (which compares same-race to mixed-race pairs) were examined as moderators of the overall effects of the friendship variables, and as moderators of the interactions between the friendship variables and time. That is, we examined whether the race variables moderated the linear trajectories of the friendship variables. At the level of the random effects, we estimated the variance of the intercept, time, and the covariance between the intercept and time. Only results of the fixed effects are reported.

In the second set of models, we tested the hypothesis that the relationship between disclosure (for self and partner) and intimacy was mediated by perceived partner responsiveness, and that the process of mediation differed by participant race, friend race, and their interaction. The results from the first set of models revealed little evidence for linear changes in the friendship variables across time (i.e., perceptions of disclosure, perceived partner responsiveness, and intimacy did not increase or decrease across time). Thus, to examine the mediation models depicted in Figures 1(b) and 2(b), we dropped time as a parameter in the mediation models. The results therefore refer to the effects of mediation over the five time-point sampling period.

Results

Table 1 presents the means, standard deviations, and correlations among self disclosure, perceived partner disclosure, perceived partner responsiveness, and intimacy averaged across all five time points, respectively. To verify that participants chose black and white friends with whom they were equally acquainted at the beginning of the study, we conducted a two (participant race: black versus white) by two (friend race: black versus white) mixed analysis of variance on how long the participants had known each of their friends (1 = *less than a week*, 2 = *1–2 weeks*, 3 = *a month*, 4 = *a few months*), which was measured during the first week (Time 1) of the study. No significant effects emerged from this analysis, confirming that participants chose black and white friends whom they knew equally well at the beginning of the study. We also examined the self disclosure, partner disclosure, perceived partner responsiveness, and intimacy variables for differences by participant gender, but found none to be significant.

Mean differences by participant race and friend race

Means by participant race and friend race for each week of the study are reported in Table 2. We first examined reports of self disclosure as predicted by participant race, friend race (both coded –1 = white, 1 = black), time, and the interaction of these variables. A marginally significant effect of friend race emerged, $t(306) = 1.91$. $p = .056$, which was qualified by a significant interaction between participant race and friend race, $t(306) = 3.37, p < .001$. On average, black participants reported higher levels of self disclosure toward black friends ($M = 3.18$) than toward white friends ($M = 2.53$),

FIGURE 1
Models predicting intimacy in intraracial friendships from (a) self- and friend disclosure, and (b) disclosure mediated by perceived friend responsiveness
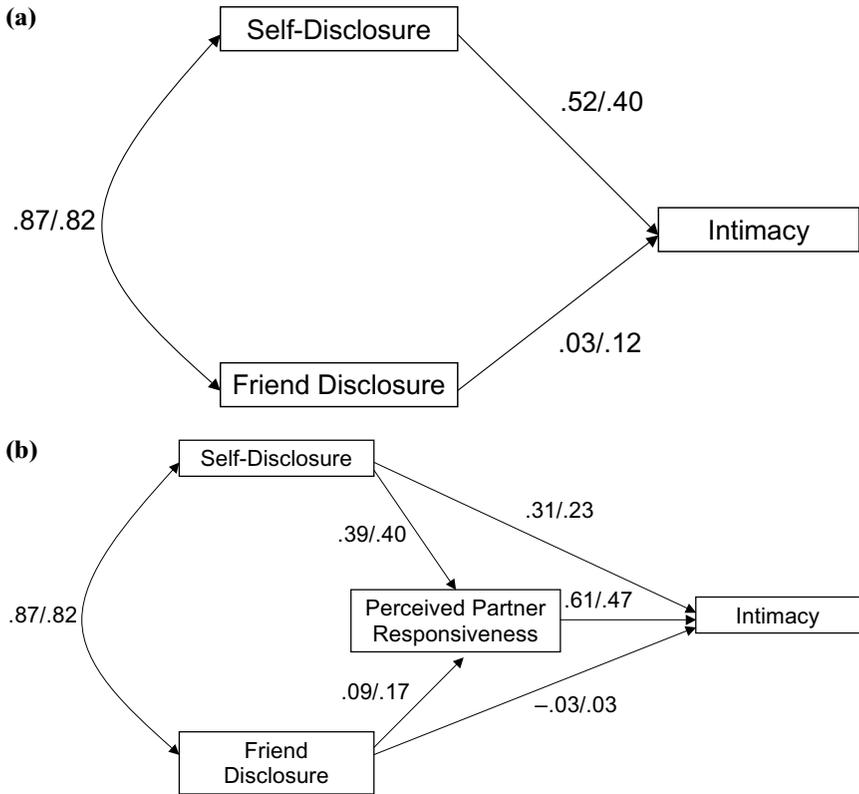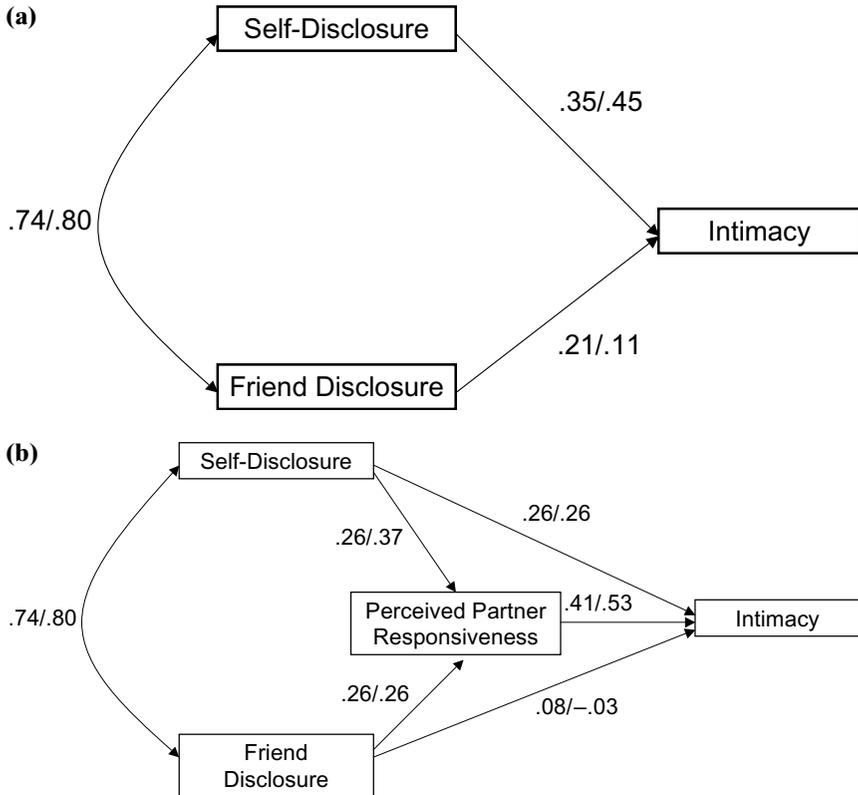

Note. The slope for Black participants with Black friends appears first, followed by the slope for White participants with White friends.

$t(306) = -3.11$, $p = .002$. In contrast, white participants reported similar levels of self disclosure toward black ($M = 2.65$) and white friends ($M = 2.83$), $t(306) = -1.38$, $p = .17$. We next examined perceived friend disclosure and found a significant effect for friend race, $t(298) = 2.76$, $p = .006$, which was qualified by a significant interaction between participant race and friend race, $t(298) = 3.92$, $p < .0001$. Overall, black participants reported higher levels of perceived disclosure by black friends ($M = 3.30$) than white friends ($M = 2.49$), $t(298) = -3.95$, $p < .0001$. White participants reported similar levels of disclosure by black friends ($M = 2.63$) and white friends ($M = 2.77$), $t(300) = -1.09$, $p = .28$.

An analysis of perceived friend responsiveness yielded a significant effect of friend race, $t(304) = 3.39$, $p < .001$, which was qualified by a significant interaction between participant race and friend race, $t(304) = 4.28$, $p < .0001$.

FIGURE 2
Models predicting intimacy in interracial friendships from (a) self- and friend
disclosure, and (b) disclosure mediated by perceived friend responsiveness

Note. The slope for Black participants with White friends appears first, followed by the slope
for White participants with Black friends.

Overall, black participants reported higher levels of perceived responsive-
ness by black friends ($M = 4.37$) than white friends ($M = 3.57$), $t(303) =$
-4.53, $p < .0001$. White participants reported similar levels of responsive-
ness by black friends ($M = 3.83$) and white friends ($M = 3.92$), $t(305) =$
-0.83, $p = .41$. Finally, examining relationship intimacy yielded a marginally
significant main effect of friend race, $t(315) = 1.89$, $p = .059$, which was qual-
ified by a significant interaction between participant race and friend race,
$t(315) = 6.94$, $p < .0001$. Overall, black participants reported higher levels
of intimacy with black friends ($M = 4.11$) than with white friends ($M =$
3.18), $t(316) = -5.18$, $p < .0001$. White participants reported less intimacy
with their black friends ($M = 3.29$) than with their white friends ($M = 3.83$),
$t(312) = -4.18$, $p < .0001$. Thus, black participants experienced higher levels
of self and friend disclosure, responsiveness, and intimacy in their relation-
ships with black friends than white friends. In contrast, white participants

TABLE 1
Descriptive statistics and correlations between measures across all time points

	Mean (*SD*)	Correlations			
		1	2	3	4
1. Self disclosure	2.75 (1.62)	–			
2. Partner disclosure	2.74 (1.65)	.84	–		
3. Perceived partner responsiveness	3.93 (1.44)	.66	.64	–	
4. Intimacy	3.57 (1.39)	.71	.63	.79	–

Note. All correlations are significant at $p < .001$.

TABLE 2
Mean ratings of in-group and out-group relationships across time

	Time				
	1	2	3	4	5
Blacks with black friend					
Self disclosure	3.00	3.25	2.88	3.15	3.14
Partner disclosure	3.29	3.19	2.94	3.50	3.14
Perceived partner responsiveness	4.41	4.50	4.47	4.27	4.26
Intimacy	3.93	4.08	4.03	4.09	4.25
Whites with white friend					
Self disclosure	2.71	3.03	2.97	2.69	2.82
Partner disclosure	2.69	2.97	2.74	2.88	2.71
Perceived partner responsiveness	3.88	4.13	4.05	3.93	3.87
Intimacy	3.76	3.87	3.95	3.77	3.82
Blacks with white friend					
Self disclosure	2.25	2.03	2.38	2.40	2.76
Partner disclosure	2.13	2.50	2.06	2.53	2.38
Perceived partner responsiveness	3.42	3.51	3.54	3.27	3.76
Intimacy	2.95	3.06	3.13	3.16	3.18
Whites with black friend					
Self disclosure	2.51	2.55	2.77	2.63	2.90
Partner disclosure	2.46	2.55	2.57	2.65	3.08
Perceived partner responsiveness	3.88	3.80	3.77	3.79	4.06
Intimacy	3.16	3.33	3.32	3.24	3.46

experienced similar levels of self and friend disclosure with black and white friends, but they reported feeling less intimate with their black friends than their white friends.

Intimacy model by participant race and friend race
Following Laurenceau et al. (1998), we constructed two models predicting intimacy. The first model includes both self disclosure and perceived partner disclosure as predictors of intimacy, and the second model adds perceived

responsiveness as a mediator of the relationship between disclosure and intimacy. Furthermore, to examine how these models function in intra- and interracial friendships, we interacted all terms in the model with participant race, friend race (both coded –1 = white, 1 = black), and the participant race by friend-race interaction. Thus, each mediation path was moderated by the three race variables. As discussed in the analysis strategy section, note that because we found no effects of time in previous models, time was trimmed from these models, at the level of the fixed and random effects.

First, the model with self disclosure and friend disclosure predicting intimacy revealed, replicating previous findings in the literature, that the effect of self disclosure on intimacy controlling for partner disclosure was reliable: unstandardized effect estimate = .431, $t(535)$ = 9.90, p < .0001. The effect of friend disclosure on intimacy controlling for self disclosure was also statistically reliable: unstandardized effect estimate = .117, $t(510)$ = 2.72, p = .007. Neither self disclosure nor perceived partner disclosure reliably interacted with participant race, friend race, or participant race by friend race. Thus, as demonstrated in previous research, both self disclosure and friend disclosure reliably predicted intimacy. In addition, these processes work similarly for intraracial (see Figure 1(a) for estimates) and interracial (see Figure 2(a) for estimates) friendships for both white and black participants.

Next, in the second model, we examined the mediating role of perceived partner responsiveness on the relationship between disclosure (self and perceived partner) and intimacy. We constructed a model predicting intimacy from self disclosure, friend disclosure, and perceived partner responsiveness. To examine differences in this model by participant and friend race, we interacted all terms in the model by participant race, friend race, and participant race by friend race (see Figures 1(b) and 2(b)).

To test for the mediating role of perceived responsiveness on the relationship between disclosure and intimacy, we first estimated a model predicting perceived partner responsiveness from self disclosure, perceived partner disclosure, and the interaction of each of those terms with participant race, friend race, and the participant race by friend race interaction (i.e., the path from the predictors to the mediator; step 2 in Baron & Kenny, 1986). Self disclosure reliably predicted perceived partner responsiveness: unstandardized effect estimate = .353, $t(559)$ = 7.34, p < .0001. Perceived partner disclosure also reliably predicted perceived partner responsiveness: unstandardized effect estimate = .197, $t(552)$ = 4.10, p < .0001. Neither self disclosure nor perceived partner disclosure reliably interacted with any of the race variables.

We next examined the effect of perceived partner responsiveness (the mediator) on intimacy (the outcome), controlling for self disclosure and perceived partner disclosure (i.e., step 3 in Baron & Kenny, 1986). A main effect of perceived responsiveness was found, indicating that perceived partner responsiveness reliably predicted intimacy: unstandardized effect estimate = .508, $t(550)$ = 15.30, p < .0001. Perceived partner responsiveness did not reliably interact with participant race, friend race, or participant race by friend race.

As predicted, perceived partner responsiveness mediated the relationship between self disclosure and intimacy, Sobel's test = 6.61, $p < .0001$. The average effect of self disclosure on intimacy was reduced from .431 in the disclosure model to .263 in the mediation model. However, the effect of self disclosure on intimacy remained significant, $t(559) = 6.82$, $p < .0001$, demonstrating partial mediation. In addition, perceived responsiveness mediated the relationship between perceived partner disclosure and intimacy, Sobel's test = 3.96, $p < .0001$. The average effect of friend disclosure was reduced from .117 in the disclosure model to .014 in the mediation model, and was no longer significant, $t(542) = 0.38$, $p = .70$. Thus, our results replicate previous findings that confirm the intimacy model of friendships; however, we showed this effect across intra- and interracial developing friendships.

Discussion

To our knowledge, this is the first empirical demonstration of the intimacy model applied to intergroup friendships, in particular during the initial stages of the friendship development. Gore et al. (2006) examined the intimacy model among potential friends by studying previously unacquainted roommates; however, the roommate dyads were presumably mostly same race. Our research provides insight into how people who voluntarily want to establish a friendship across racial lines create such connections. Our data show that they create meaningful intergroup relationships by revealing personal information and construing their out-group partners' responses in a positive light.

In most close relationships, people want their partners to be concerned about their thoughts and emotions. When people feel that their partners are responsive to them, trust, perceived security, and relationship satisfaction increase (Collins & Feeney, 2000; Reis, Clark, & Holmes, 2004). In interracial interactions, people often think they are being responsive and conveying how delighted they are to learn about the other person, even more so than in intraracial interactions, but their partners are unlikely to perceive the situation similarly (Vorauer, 2005; Vorauer & Sakamoto, 2006). Our results illuminated the importance of perceived acceptance, validation, and caring in an intergroup relationship. Notably, we did not measure actual partner responsiveness. Consistent with Reis and Shaver's theoretical stance, however, we showed that simply believing one's partner is concerned, regardless of how one's partner actually feels, has important implications for intimacy. The importance of perceived partner responsiveness as "one of the central organizing principles that will help advance relationship science" (Reis, 2007, p. 19) is supported by empirical work on dyads demonstrating that perceived partner responsiveness predicts individuals' relationship satisfaction better than their partner's self-reported level of responsiveness (Lemay, Clark, & Feeney, 2007).

Interracial interactions tend to be strained by anxiety that often yields misunderstandings (Shelton, Dovidio, Hebl, & Richeson, 2009). The breakdown

in communication processes as a result of the anxiety is extremely detrimental in interracial relationships because people are more likely to make negative attributions about why partners are not responsive, opening the door for prejudice to be used as an explanation (Pearson et al., 2008). Our data suggest that believing that partners are concerned is essential for reducing uncertainty and negative expectations (which are often interpreted as prejudice) in interracial relationships.

We found mean differences in self disclosure, perceived friend disclosure, and perceived partner responsiveness among blacks describing intraracial versus interracial friendships, such that they reported more disclosure and perceived partner responsiveness with an in-group than an out-group friend. This finding is consistent with previous research showing that blacks feel more comfortable interacting with other blacks than with whites (e.g., Trail, Shelton, & West, 2009). Interestingly, blacks with black friends reported the highest mean levels of self disclosure, partner disclosure, and perceived partner responsiveness. This effect may indicate that black students at a predominately white university particularly appreciate having a potential in-group friend with whom to socialize and become friends. That is, because black students are scarce at such universities, black students encountering a potential black friend may be more likely to self disclose extensively and feel connected to this person on the basis of their shared ethnic group membership.

Prior research suggests several causal mechanisms that might cause black students to have more numerous or more intimate friendships with blacks than whites, particularly blacks' past experiences as the targets of discrimination or prejudice. For instance, black students' race-based rejection sensitivity negatively predicts their number of white friends (Mendoza-Denton & Page-Gould, 2008). Moreover, black students' liking of white friends is mediated by the perception that these white friends have thought about racial issues, yet whites friends are perceived on average to have thought about racial issues less than black friends (Shelton & Bergsieker, 2010). Also, black students tend to feel greater belonging when dual identity representations (which acknowledge racial *and* superordinate identities) are prevalent, but whites are less likely than blacks to endorse such representations and in fact hold more negative attitudes towards blacks who express dual identities than those who do not (Dovidio, Gaertner, & Saguy, 2007). Although we did not assess these specific mechanisms, they may have contributed to blacks' higher levels of intimacy, self disclosure, partner disclosure, and perceived partner responsiveness with a black friend than a white friend.

Surprisingly, however, we did not find any in-group and out-group mean differences in self disclosure, perceived friend disclosure, and perceived partner responsiveness among whites. These responses could reflect social desirability concerns; that is, whites might be motivated to avoid reporting more negative responses for an out-group than an in-group friend. However, whites did report lower levels of intimacy (i.e., less closeness and liking) with black friends than white friends, a result that belies any efforts to

appear egalitarian. Conceivably, whites might opt to misrepresent their behavior as non-discriminatory while admitting to more negative affective responses toward blacks than whites, but this pattern of results seems unlikely to arise from social desirability concerns, given strong contemporary social norms against anti-black prejudice (i.e., against "feeling negatively" toward blacks; Crandall, Eshleman, & O'Brien, 2002). A more plausible alternative explanation asserts that whites may be honestly but mistakenly reporting their own and their partners' behavior. Whites may genuinely believe that they treat white and black friends comparably and receive similar disclosures and responsiveness in return, but these perceptions may be driven by signal amplification and transparency biases that can distort whites' meta-perceptions in intergroup settings (Vorauer, 2005; Vorauer & Sakamoto, 2006). Although it remains unclear whether whites perceive self disclosure, perceived partner disclosure, and perceived partner disclosure are completely accurately, we do not think that social desirability effects provide a sufficient explanation for our pattern of results. In addition, it bears noting that the disclosure and responsiveness variables do not account for all the variance in intimacy, leaving open the possibility that another variable (e.g., prejudice) leads whites to report less intimacy with black friends than white friends.

Although interpreting null effects is difficult, in a sense these findings are uplifting. Despite the anxieties and fears associated with interracial interactions, these results imply that in novel relationships in a real-world context, whites report sharing a similar amount of personal information with in-group and out-group potential friends, and they interpret those potential friends' responses in a similarly positive manner. Notably, participants in this study selected people whom they did not know well but wanted to get to know. This procedure is markedly different from lab studies that randomly assigned participants to interact with an in-group or out-group stranger, presumably someone with whom they do not have a strong desire to interact again. Thus, once whites have selected someone they would like to get know, as was the case in our research, perhaps that person's race does not matter when it comes to opening up and revealing information about the self.

Limitations

Although our findings are insightful, our methodology raises concerns about how to interpret our findings. First, the interpretation of our findings is constrained by the correlational nature of the data. The relationships between the components in the model are likely reciprocal – for instance, intimacy causes more disclosure. Second, participants made their ratings once every two weeks, reflecting back upon the past two weeks. Therefore, we were unable to examine the interaction-by-interaction exchanges that Reis and Shaver (1988) posited in their theoretical model. Our methodology, however, is similar to that of other researchers who have examined interactions at the daily level (Laurenceau et al., 2005). Finally, it is feasible that the process of reporting on their relationship made the relationship more salient to participants on a regular basis and caused them to put more

effort into trying to establish a successful relationship. As a result, our results would not reflect the natural processes that occur in friendship development. Although we acknowledge this possibility, we do not believe it occurred in our research. If participants had put more effort into establishing a relationship, we should have seen higher mean values for the key variables over time or on average. Instead, most means are at the midpoint or below.

Future directions

Because we were interested in examining the basic processes associated with interracial friendship development, we did not explore individual differences that may moderate the processes in the intimacy model. Cross and her colleagues (Cross, Bacon, & Morris, 2000; Gore et al., 2006) showed that relational self construal influences the interpersonal process model among predominately same-race strangers and roommates. Similarly, it is feasible that concerns with prejudice and racial attitudes may influence the processes discussed here in interracial friendships. Indeed, previous research has shown that both concerns with prejudice and racial attitudes influence the extent to which ethnic minorities self disclose to whites. Specifically, results from a daily diary study of roommate relationships revealed that among ethnic minorities who had a white roommate, the *more* they expect to be the target of prejudice, the greater their tendency to self disclose to their roommate (Shelton, Richeson, & Salvatore, 2005). Among ethnic minorities who had an ethnic minority roommate, however, prejudice expectations were unrelated to self disclosure. In addition, results from a study on interracial friendships revealed that the more negative ethnic minorities' attitudes toward whites, the less comfortable they felt disclosing information to a white friend (Shelton & Richeson, 2006). By contrast, among the students reflecting about a black friend, there was no relationship between racial attitudes and self disclosure. These racial factors may not only influence the extent of self disclosure, but may also influence the entire interpersonal intimacy process. Future research is needed to address this issue. Nevertheless, we believe our research is an important first step toward revealing the processes that are important for the development of intimate interracial friendships.

Another important consideration for future research is to examine the actual content of disclosure between potential out-group friends. Prior work has established that objectively observed partner responsiveness is associated with greater relationship satisfaction in romantic relationships (Collins & Feeney, 2000), and objective measures of partner responsiveness could provide valuable insights about the development of satisfaction and intimacy in interracial friendships. The distinction between race-related content and more intimate but non-race-related content is likely to influence the amount of disclosure, as well as people's interpretation of their partner's responsiveness to the disclosure. Similarly, it would be useful to explore the extent to which the stereotypicality of the disclosed information influences the intimacy process. A black male who discloses that he has a relative in prison may feel less intimate with a white partner if this disclo-

sure makes their differences salient rather than reinforcing their commonalities. Similarly, a white female may perceive her black partner as distant, as opposed to validating and understanding, if she discloses that she would never date black men because she thinks they are criminals. Thus, additional work that begins to address disclosure content may enable better understanding of the path to meaningful interracial friendships.

Finally, in future research it would be useful to include both people in a potential friendship dyad in order to examine projection and accuracy of perceived responsiveness. As in romantic relationships (Lemay et al., 2007), it is possible that same-race friends project their own motivation to be responsive onto their friends' motivation to be responsive to them. In the case of developing interracial friendships, however, we suspect that this is less likely to occur. Whites and ethnic minorities report that they are interested in intergroup contact, but that out-group members are not (Shelton & Richeson, 2005), and they see their overtures as signaling interest in intergroup friendship, but are less likely to see out-group members' overtures as doing so (Vorauer, 2005). Thus, it is likely that people who think they are responsive to a potential out-group friend assume (often erroneously) that this person will not be responsive to them, setting the stage for misunderstandings that undermine friendship development.

Conclusion

People like to interact with, become friends with, and date people who are similar to them, especially those who are racially similar (Levin, Taylor, & Caudle, 2007; McPherson, Smith-Lovin, & Cook, 2001). In this research, we have provided a window into the interpersonal processes involved in moving people out of their comfort zones and establishing friendships across racial lines (see also Shelton, Richeson, & Bergsieker, 2009). Although whites and blacks are less likely to become friends (McPherson, Smith-Lovin, and Cook, 2001), the road to such friendships is paved the same way it is for intraracial friendships, namely, with revealing information about oneself and accepting the other person for who that person is.

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