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# **Extended contact through cross-group romantic relationships**

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### Abstract

Cross-group romantic relationships are an extremely intimate and often maligned form of intergroup contact. Yet, according to intergroup contact theory, these relationships have the potential to improve the intergroup attitudes of others via extended contact. This study combines the interpersonal and intergroup literatures to examine the outcomes associated with knowing a partner in a cross-group romantic relationship. Results suggest that cross-group romantic partners encounter greater disapproval towards their relationships than same-group partners and, as a result, their relationships are perceived more negatively. Nevertheless, extended contact with cross-group partners, controlling for participants' cross-group friendships and romantic relationships, predicts more positive attitudes towards cross-group dating and positive intergroup attitudes in general, mediated by perceived ingroup norms towards cross-group relationships.

### Extended contact through cross-group romantic relationships

Romantic relationships between members of distinct social groups (e.g., racial, ethnic, religious) have long been burdened by prohibitive laws, demeaning stereotypes, and blatant prejudice (Clark-Ibanez & Felmlee, 2004; Miller, Olson, & Fazio, 2004). As a consequence of this disapproval, cross-group relationships are perceived to be less satisfying and more prone to dissolution than same-group relationships (Gurung & Duong, 1999). But despite these negative interpersonal consequences, the principles underlying intergroup contact theory would suggest that these intimate cross-group relationships have the potential to produce beneficial intergroup outcomes (Allport, 1954; Pettigrew, 1998; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). In the present study, we combine intergroup contact theory with interpersonal relationships research to demonstrate how simply knowing of a partner in a cross-group romantic relationship may improve intergroup attitudes. In addition, given that social norms are an important factor in both interpersonal (e.g., Felmlee, 2001; Etcheverry & Agnew, 2004) and intergroup research (e.g., Allport, 1954; Pettigrew, 1997; 1998; Hewstone & Swart, 2011; Wright et al., 1997), we investigate how perceptions of social norms influences both the interpersonal and intergroup consequences of this extended contact.

#### Extended contact and the role of social norms

The extended contact hypothesis proposes that the mere knowledge that an ingroup member shares a close relationship with an outgroup member can be sufficient to improve intergroup attitudes (Wright et al., 1997). Knowing an ingroup member in a cross-group relationship is thought to produce positive intergroup outcomes by changing perceptions of ingroup norms regarding intergroup contact (Turner, Hewstone, Voci, & Vonokafou, 2008; Wright et al., 1997). Specifically, by serving as positive

exemplars and providing referential information on how to act in cross-group interactions (e.g., social identity theory: Abrams & Hogg, 1990), extended contact with cross-group relationships illustrate ingroup endorsement and encouragement of such contact. This endorsement, or perceived positive norms, promotes positive attitudes towards the outgroup member in the cross-group interaction (e.g., Turner et al., 2008). Furthermore, because group memberships remain salient in extended contact, positive attitudes towards the particular outgroup member should also generalise to the outgroup as a whole (e.g., Pettigrew, 1997; Turner et al. 2008).

Subsequent research has consistently found ingroup norms to mediate the relationship between extended contact and positive intergroup attitudes. Turner et al. (2008), for example, investigated four proposed mediators between extended contact and intergroup attitudes in two studies. In both studies, the perception of ingroup norms was the strongest mediator between White participants' extended contact with South-Asians and more favourable attitudes towards the outgroup as a whole. Similarly, De Tezanos-Pinto, Bratt, and Brown (2010) investigated the attitudes of high school students towards a range of ethnic minorities in Norway. This large scale study (N = 823) found that extended contact via cross-group friendships was positively associated with outgroup attitudes. Moreover, this relationship was mediated by students' perceived ingroup norms about the approval of intergroup contact. Further research has also illustrated that ingroup norms play a powerful mediating role between extended contact and intergroup attitudes in older children (Cameron, Rutland, Hossain, & Petley, 2011), in areas where direct contact is limited (Turner, Tam, Hewstone, Kenworthy, & Cairns, 2013), and that it also predicts intergroup expectations as well as intergroup

attitudes of both majority and minority group members (Gomez, Tropp, & Fernandez, 2011).

#### Cross-group romantic relationships: A norm violation

The powerful mediating role of ingroup norms in extended contact is particularly pertinent to how cross-group romantic relationships may influence intergroup attitudes. In 1954, Allport noted that cross-group romantic relationships are a violation of the pervasive endogamy norm (the norm of marrying or dating within one's group), stating that "Everywhere on earth we find a condition of separateness among groups. People mate with their own kind" (Allport, 1954, p.17). Although he wrote these words 70 years ago, these intimate relationships "remain a substantial social norm violation" (Clark-Ibanez & Felmlee, 2004, p. 293), with only 2% of marriages in England and Wales in the last census being interethnic (Office for National Statistics, 2005).

Importantly, as the endogamy norm serves to protect important group values and traditions (Clark-Ibanez & Felmlee, 2004; Surra & Milardo, 1991), individuals who violate this enduring ingroup norm are seen to pose a significant threat to cultural identities and familial traditions (Uskul, Lalonde, & Cheng, 2007). Consequently, cross-group romantic relationships are often discouraged, disapproved of, and even discriminated against (e.g., Clark-Ibanez & Felmlee, 2004; Lehmler & Agnew, 2007; Lewandowski & Jackson, 2001; Miller et al., 2004; Wang, Kao & Joyner, 2004).

Illustrating the discouragement of cross-group romantic relationships, Clark-Ibanez and Felmlee (2004) found that the most common reason not to date outgroup members was perceived social pressure not to enter into cross-group romantic relationships. Similarly, those ingroup members who do go on to form cross-group

romantic relationships often report that they receive less support and approval from their social networks than partners in same-group romantic relationships. Lehmiller and Agnew (2006), for example, found that individuals romantically involved with a partner of a different race reported significantly greater disapproval from friends, family and society in general than individuals in same-race partnerships (see also Shibazaki & Brennan, 1998; Wang et al., 2004). Moreover, cross-group partners are deemed to have relationships that are less compatible (Lewandowski & Jackson, 2001), less satisfying (Gurung & Duong, 1999), and are socially devalued compared to same-group couples (Lehmiller & Agnew, 2007). Such negative perceptions of cross-group relationships, combined with the explicit disapproval towards them, is thought to greatly impact on the relationships, contributing to the higher relationship dissolution and divorce rates of these types of relationships (e.g., Gurung & Duong, 1999; Wang et al., 2004).

#### Extended contact through cross-group romantic relationships

Despite the abundance of research into the separate literatures of extended contact and cross-group romantic relationships, to date there has been no research into whether extended contact through cross-group romantic relationship influences intergroup attitudes. Uniting the literatures, the current study investigates how ingroup members' cross-group romantic relationships are perceived in comparison with same-group romantic relationships, and how extended contact through cross-group relationships influences intergroup attitudes. Consistent with previous interpersonal relationships research (e.g., Gurung & Duong, 1999; Lehmiller & Agnew, 2007), we expect that ingroup members in cross-group romantic relationships will be perceived more negatively than those in same-group relationships. Specifically, we expect participants to perceive cross-group relationships to encounter greater disapproval

which, in turn, will result in their relationships being perceived to be of lower quality than same-group relationships (Hypothesis 1). Furthermore, drawing on previous research on extended contact, we hypothesise that knowing an ingroup member in a cross-group romantic relationship (extended contact) will predict positive attitudes towards cross-group dating, which will also generalise to more favourable attitudes towards the outgroup. Furthermore, these associations will be mediated by perceived positive ingroup norms regarding the approval of cross-group dating (Hypothesis 2). Consistent with previous research in which the independent effects of extended contact are examined by controlling for the effects of direct intergroup contact (Turner et al., 2008; Wright et al., 1997), we will use participants' direct cross-group friendships and own cross-group dating history as covariates.

## Method

### Participants

Ninety-nine White-British participants aged 18 to 24 years (12 males and 87 females) completed an online study in exchange for class credit at the University of Leeds.

### Measures

**Relationship Type / Extended Contact.** As South-Asian people represent the largest ethnic group in England, which is not defined as mixed or multiple heritage (4% of population; Office for National Statistics, 2004), participants indicated if they knew an ingroup member (White-British person) in a cross-group romantic relationship with a South-Asian partner. This measure was used to indicate relationship type for the interpersonal measures (same-group vs. cross-group) and to indicate extended contact for the intergroup measures (no vs. yes). Twenty-five participants knew of such a cross-



group romantic relationship but 74 participants did not know of such a relationship and so assessed the interpersonal qualities of a White-British same-group romantic relationship.

#### Interpersonal measures

**Perceived approval of relationship.** Participants indicated to what extent they thought both partners' friends and families approve of the specific relationship (1 = very much disapprove to 7 = very much approve), in addition to how much overall encouragement they receive to continue with their relationship (1 = lots of discouragement to 7 = lots of encouragement, adapted from Social Network Approval; Felmlee, 2001;  $\alpha = .87$ ).

**Relationship quality.** Participants completed a modified shortened version of the Investment Scale (1 = Do not agree at all to 9 = Agree completely; Lehmler & Agnew, 2006; Rusbult, 1980). The 15-item scale asked participants to think of the partner they knew best in the relationship and to indicate how much they thought the partner was satisfied with, invested in, and committed to the relationship, in addition to how many alternatives the partner has to the relationship. Satisfaction of the relationship was assessed by three items, such as "They feel satisfied with their relationship" ( $\alpha = .85$ ). Investment into the relationship was measured by five items, including "They feel very involved in their relationship – like they have put a great deal into it" ( $\alpha = .90$ ). Alternatives to the relationship was assessed by three items and included, "Their needs for intimacy, companionship, etc. could easily be fulfilled in an alternative relationship" ( $\alpha = .74$ ). Commitment was assessed by four items, such as, "They want their relationship to last forever" ( $\alpha = .93$ ).

#### Intergroup measures

Perceived ingroup approval for cross-group dating. Participants reported to what extent they believed their parents and friends would approve if they were to date a South-Asian person ( $r = .81$ ) and a White-British person ( $r = .92$ ; 1 = Disapprove a great deal to 7 = Approve a great deal; adapted from Miller et al., 2004). Perceived ingroup approval for cross-group dating was then calculated by subtracting the approval of same-group dating from the approval of cross-group dating. Higher scores indicate greater perceived approval towards cross-group dating than same-group dating.

Own attitudes towards cross-group relationships. Participants indicated how strongly they favoured or opposed a variety of ingroup members (parent, sibling, distant relative, same ethnicity friend, same ethnicity acquaintance) having a romantic relationship with two different outgroup members; a South-Asian partner ( $\alpha = .94$ ), and a Black partner ( $\alpha = .94$ ; 1 = Strongly oppose to 5 = Strongly favour; adapted from Golebiowska, 2007).

Outgroup Affect. Positive affect toward South-Asian people in general was measured by 3 items ( $\alpha = .89$ ): to what extent participants like South-Asian people, experience positive feelings toward South-Asian people and feel happiness toward South-Asian people (0 = Not at all to 9 = Extremely; Cottrell & Neuberg, 2005).

Control variables. In attempt to isolate the unique effects of extended contact with a cross-group romantic relationship, participants indicated their contact with cross-group friends; "In my circle of friends there are people who are of a different ethnicity to me" (1 = Very rarely or never, 2 = Rarely, 3 = More often than rarely, 4 = Often, 5 = Very often; Groweic, 2007). In addition, participants also reported if they had ever been in a relationship lasting a month or more with a South-Asian partner (Yes/No).

## Results

### Descriptive statistics

Table 1 illustrates the means, standard deviations, and correlations for all participants' responses collapsed across groups. As can be seen from this table, all variables under investigation were correlated with knowing a cross-group relationship/extended contact in the hypothesised ways. Specifically, relationship type (dummy coded: same-group relationship/no extended contact = 1; cross-group relationship/extended contact = 2) was negatively correlated with interpersonal variables indicating the negative perceptions of cross-group relationships, and positively correlated to the intergroup measures, illustrating the positive intergroup effects associated with extended contact with cross-group romantic relationships. Of interest, the interpersonal and intergroup measures were generally uncorrelated.

Table 2 displays the adjusted means and standard deviations of the two relationship types controlling for cross-group friendships and own cross-group dating history. In addition, main effects of relationship type on all dependent variables, as analysed by a MANCOVA controlling for cross-group friendships and own cross-group dating history, are presented in the table. These analyses illustrate that ingroup members in cross-group romantic relationships were perceived to encounter greater disapproval, to be less satisfied, less invested into, less committed, and have more alternatives to their relationships than same-group partners. The analyses also reveal that participants who had extended contact with a cross-group romantic relationship, compared to participants who had no such contact (same-group relationship), perceived relatively less disapproval for cross-group dating from their family and friends (though the negative signs for both groups indicate that cross-group relationships were still more disapproved of than same-group relationships), were themselves more approving of

other ingroup members dating a South-Asian partner and a Black partner, and reported more positive attitudes towards South-Asian people.

#### Path Model

Using Mplus version 6 (Muthén & Muthén, 2011), we tested a path model which simultaneously explored the interpersonal and intergroup effects of extended contact through cross-group romantic relationships through the proposed mediators whilst controlling for participants' cross-group friendships and own cross-group dating history (Figure 1). In the upper portion of Figure 1, we examined the perceived relationship qualities of cross-group romantic, mediated by the perceived approval of the specific relationship (Hypothesis 1). In the lower portion of the figure, we examined how extended contact with a cross-group romantic relationship influenced the intergroup measures via the perceived relative approval participants' would receive if they were to date an outgroup member compared to an ingroup member (Hypothesis 2).

Using Hu and Bentler's (1999) guidelines, the proposed model fit the data well. The chi square test was not significant,  $\chi^2(15, N = 99) = 16.44, p = .35$ ; the root-mean-square error of approximation (RMSEA) was below .06 (RMSEA = .031), the comparative fit index (CFI) was over .95 (CFI = .997), and the standardized root mean square residual (SRMR) was lower than the specified value of .08 (SRMR = .038). To test the hypothesised mediating effects, we performed the bootstrapping technique using 5000 resamples and 95% bias-corrected intervals as suggested by Preacher and Hayes (2008). Confidence intervals (CIs) that do not contain a zero reveal a significant mediation effect.

As illustrated in the top section of Figure 1, participants perceived ingroup members in cross-group relationships to receive less approval for their relationship from

friends and family. This disapproval, in turn, led participants to perceive cross-group partners to be less satisfied with their relationship (bootstrap point estimate =  $-.31$ , CIs =  $-.42/-.18$ ), less invested into their relationships (bootstrap point estimate =  $-.29$ , CIs =  $-.40/-.18$ ), less committed to their relationships (bootstrap point estimate =  $-.23$ , CIs =  $-.33/-.13$ ), and as having more alternatives to their relationships (bootstrap point estimate =  $.17$ , CIs =  $.08/.26$ ). The lower section of Figure 1, meanwhile, illustrates that consistent with Hypothesis 2, relationship type – this time exemplifying extended contact through cross-group romantic relationships – also had significant impacts on participants' intergroup attitudes. Specifically, extended contact was associated with participants perceiving greater relative approval from their own family and friends to date an outgroup member. This approval, in turn, predicted participants own approval of other ingroup members to date a South-Asian person (bootstrap point estimate =  $.10$ , CIs =  $.01/.19$ ), their approval for other ingroup members to date a Black person (bootstrap point estimate =  $.09$ , CIs =  $.01/.18$ ), and their positive affect toward South-Asian people in general (though this mediation was marginally significant: bootstrap point estimate =  $.07$ , CIs =  $-.002/.15$ ).

We also assessed models in which relationship type was allowed to directly predict each dependent variable in turn. No significant direct paths were found (all paths,  $p > .10$ ) and the addition of the direct paths did not significantly improve the fit of the model (all models,  $\chi^2_d(1) < 1.70$ ,  $ps > .19$ ).

### Discussion

The present study integrated the intergroup relations and interpersonal relationships literatures by investigating how ingroup members' cross-group romantic relationships are perceived and how extended contact with these intimate relationships

influence intergroup attitudes. In support of the hypotheses, ingroup members' cross-group relationships were perceived more negatively than same-group relationships.

However, knowledge of such a relationship had positive implications for participants' intergroup attitudes and relations. Importantly, the analyses suggest that perceived ingroup norms play a pivotal mediating role in how ingroup members' cross-group relationships are perceived and in how extended contact with cross-group romantic relationships influence intergroup attitudes.

### Interpersonal Relationships

Ingroup members in cross-group romantic relationships were perceived to encounter greater friend and familial disapproval of their relationship than ingroup members in same-group relationships. Without the approval and support of their social networks, cross-group partners were perceived to be less satisfied with, less invested in, less committed to, and had more appealing alternatives to their relationship than same-group partners. This supports previous research and illustrates that cross-group couples not only encounter more opposition to their relationship than same-group couples but that this opposition, representing the social norms against cross-group relationships, places greater strain on the relationship which subsequently reduces the perceived quality of the relationship (e.g., Felmee, 2001; Lehmiller & Agnew, 2007; Wang et al., 2004).

Nevertheless, despite the relatively negative perceptions of cross-group romantic relationships, there was an encouraging finding for cross-group couples. Specifically, knowing an ingroup member in a cross-group romantic relationship predicted greater perceived relative ingroup approval of cross-group dating. This suggests that although these relationships are deemed to be of lower quality than same-group relationships at

present, contact with these types of relationships are helping to improve the perceived norms towards this form of intergroup contact. As norms towards these relationships gradually improve, cross-group couples could be expected to encounter less disapproval and discouragement from friends, family and society. Consequently, this could enable the partners to develop high quality relationships unburdened by network disapproval.

### Intergroup Relations

The finding that extended contact through a cross-group romantic relationship predicts greater perceived relative ingroup approval towards cross-group dating is also of great interest for the intergroup relations literature. Importantly, as with other forms of extended contact, the perception of ingroup norms was found to mediate between extended contact with a cross-group romantic relationship and intergroup attitudes (e.g., De Tezanos-Pinto et al., 2010; Turner et al., 2008). Specifically, extended contact, by indicating relative ingroup approval of cross-group dating, promoted more positive attitudes towards other ingroup members dating an outgroup member. This indicates that what other ingroup members do (e.g., date outgroup members) and what they are perceived to endorse (e.g., support for intergroup dating), has a significant impact on the attitudes of ingroup members.

In addition to revealing that extended contact, via ingroup norms, promoted more positive attitudes towards the specific relationship type in question (a White-British partner with a South-Asian partner), consistent with Pettigrew's (1998) suggestion, we also found that these positive attitudes generalised. Notably, participants who had extended contact with a relationship involving a White-British person and a South-Asian person were more approving of another type of intergroup relationship – a relationship between a White-British person and a Black person. While such a

‘secondary transfer effect’ has previously been found for direct contact (Tausch et al., 2010) and imagined contact (Harwood, Paolini, Joyce, Rubin, & Arroyo, 2011), this is the first evidence, to our knowledge, that secondary transfer can also occur for extended contact. Importantly, these positive attitudes were not specific to cross-group dating but also generalised to feeling more positive towards South-Asian people in general. Such findings indicate that contact with cross-group couples could not only improve attitudes towards these relationships and thereby reduce the obstacles these couples face, but these relationships could also help promote more positive intergroup attitudes in general which could help eliminate prejudice in society.

#### Importance of the research

Combining the conclusions from the interpersonal and intergroup findings reveal that extended contact with cross-group couples has distinctly double edged consequences. On the one hand, cross-group couples present a uniquely close form of intergroup contact that can improve others’ intergroup attitudes. These benefits, however, come at a significant cost to the individuals in the relationships. Notably, although their relationships promote more positive attitudes in others, their relationships remain subjected to disapproval and denigration which, ultimately, can have adverse effects on the quality and longevity of their relationship (e.g., Gurung & Duong, 1999).

Nevertheless, a more optimistic interpretation and application of the findings could have important implications for cross-group couples. Although they may feel burdened by the disapproval their relationships currently receive, they could also take solace in the fact that their relationships are helping to break down prejudicial attitudes towards their own and others’ relationships, as well as prejudice at the group level. The erosion of these negative attitudes may help couples overcome the obstacles they face



and provide them with the confidence and motivation to continue with their relationships. In addition, they may get some satisfaction from knowing that their loving examples are helping to change societal attitudes for the better.

In addition to the practical implications for cross-group couples, the research makes important theoretical contributions to both the interpersonal relationships and intergroup relations literature. Notably, we highlight that romantic relationships are an important but often overlooked form of intergroup contact. Indeed, our results suggest that extended contact through this unique form of intergroup contact could help promote more positive intergroup relations via perceived norms, similar to other forms of intergroup contact (e.g., friendships: De-Tezanos-Pinto et al., 2010; Turner et al., 2008). Furthermore, from an interpersonal perspective, we not only show the negative outcomes of cross-group relationships as much previous research has done (e.g., Clark-Ibanez & Felmlee, 2004; Miller et al., 2004), we also provide some positive consequences for being in a cross-group romantic relationship, thereby, hopefully, giving cross-group partners some much needed optimism.

#### Limitations and future research

Despite using covariates to make a more stringent test of our hypotheses, the research remains correlational and, as such, causation cannot be inferred. It could be the case, for example, that more positive intergroup attitudes increase the chances of knowing a cross-group couple. Nevertheless, as one generally cannot choose who other people date and a great deal of research into other forms of intergroup contact suggest that the path going from contact to attitudes is stronger than the reverse (Pettigrew, 1997; Turner et al., 2007), we feel that the model we present is justified. An alternative test, however, could be to conduct a longitudinal study in which it would be able to

trace the effects of knowing a cross-group couple both pre- and post-contact. Such research could also examine how cross-group relationship milestones (e.g., dating, separation, engagement, marriage, divorce) impact on others' attitudes towards these types of relationships and intergroup attitudes in general.

Another possible avenue of further research would be to investigate the moderating role of direct contact. Due to the relatively small sample size in this study and consistent with previous research (e.g., Wright et al., 1997), we controlled for participants' own experiences within cross-group relationships (i.e., direct contact). However, with a growing interest of how these two types of contact interact with one another (e.g., Christ et al., 2010; Paolini, Hewstone & Cairns, 2007; Turner, Hewstone, Voci, Paolini, & Christ, 2007), future research could examine if extended contact with other cross-group couples has the same impact on the attitudes of individuals who have never been in a cross-group relationship compared to individuals who have been in such a relationship. Consistent with previous research, we may expect that extended contact with cross-group couples is more beneficial to those people who have never had such intimate contact with an outgroup member (e.g., Christ et al., 2010; Turner et al., 2007).

Although we highlight the important role norms play in both the perceptions of cross-group relationships and the impacts of extended contact with the relationships, future research could conduct a more detailed appraisal of the role norms play. Specifically, within our research, we operationalised the norms used to test the interpersonal hypothesis as the combination of the perceived approval of both partners' friends and family, together with the overall encouragement they receive. A more intricate design could examine if there are any differences between the perceived approval of ingroup members and the perceived approval of outgroup members, and

how these differences may impact upon the perception of the relationship. Similarly, we operationalised the ingroup norms used for our intergroup hypotheses as the perceived relative approval from friends and family. By doing so, however, we did not include the perceived relative approval of the ingroup in general. As the sources of approval (friends vs. family vs. ingroup in general) may all differ, future research could examine how these sources of perceived approval independently impact on individuals' attitudes.

Lastly, by only investigating cross-group couples involving White-British with South-Asian partners, our results may be limited in their applicability and generalisation. Notably, as there are many, many different possible combinations and compositions of cross-group couples, there are numerous interesting and informative questions that are, unfortunately, beyond the scope of the current study but that future research should address. For example, could partners from different ethnicities (i.e., not White-British or South-Asian) have similar impacts? Do the impacts depend on the partner known in the relationship, for instance, if they are from the majority or minority group, if they are male or female, or if they are heterosexual or homosexual? Are the impacts of extended contact similar for people from minority ethnic groups? Are they similar for different types of groups, for example, religious groups, nationality groups, and subgroups? Such a brief selection of questions illustrates the vast scope of possible research opportunities in this interesting and important field.

In sum, as a greater number of people enter into relationships with partners from different social groups, research into the interpersonal consequences and intergroup impacts of these cross-group relationships is much needed. Our initial examination suggests that these cross-group relationships are a special form of intergroup contact which have benefits for society and those who come into contact with them.

Nevertheless, these benefits come at a significant cost to individuals involved in the relationships. These double-natured effects provide impetus and direction for future research which can help the romantic lives of individuals and couples, all the while helping to reduce prejudice.

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Table 1  
Means, standard deviations and correlations of all variables collapsed across groups

	Scale	Mean (SD)	1	2	3	4	5	6	7	8	9	10	11	12
1. Relationship type	1-2	1.25(0.44)	-	-.43***	-.24*	-.33***	.21*	-.17 <sup>†</sup>	-.03	.20*	.23*	.24*	.23*	.28**
2. Perceived relationship approval	1-7	5.92(1.09)		-	.68***	.62***	-.37***	.52***	-.04	.05	.05	.04	-.03	.01
3. Satisfaction	1-9	6.88(1.69)			-	.62***	-.38***	.74***	-.01	.12	.08	.09	.01	.08
4. Investment	1-9	6.88(1.85)				-	-.36***	.71***	.01	.13	-.02	.10	.10	-.03
5. Alternatives	1-9	3.89(1.85)					-	-.45***	-.02	.02	-.02	-.18 <sup>†</sup>	-.15	-.04
6. Commitment	1-9	7.27(1.86)						-	-.04	.19 <sup>†</sup>	.06	.21*	.16	.14
7. Own cross-group dating	0-1	0.05(0.22)							-	.16	.10	.12	.09	.12
8. Cross-group friendships	1-5	2.47(1.07)								-	.21*	.18 <sup>†</sup>	.17 <sup>†</sup>	.26**
9. Relative ingroup approval of own cross-group dating	12-+12	-4.28(3.64)									-	.49***	.45***	.42***
10. Own approval of other IG with S. Asian partners	1-5	3.22(0.84)										-	.94***	.51***
11. Own approval of other IG with Black partners	1-5	3.31(0.83)											-	.45***
12. Outgroup affect	1-9	5.48(1.65)												-

Note. IG = Ingroup members. Relationship type dummy coded: 1 = Same-group relationship/No extended contact, 2 = Cross-group relationship/Extended contact. <sup>†</sup>p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 2

Adjusted means, standard deviations, and main effect of relationship type controlling for cross-group friendships and dating history

	Cross-group M (SD)	Same-group M (SD)	Main effect of relationship type F
Perceived relationship approval	5.05(.20)	6.22(.12)	24.93***
Satisfaction	6.08(.33)	7.15(.19)	7.66**
Investment	5.72(.35)	7.28(.20)	14.44***
Alternatives	4.58(.37)	3.66(.22)	4.49*
Commitment	6.57(.37)	7.51(.21)	4.76*
Relative ingroup approval of own cross-group dating	-3.02(.72)	-4.71(.41)	4.12*
Own approval of IG with S.Asian partner	3.54(.17)	3.12(.10)	4.74*
Own approval of IG with Black partner	3.61(.17)	3.21(.10)	4.34*
Positive outgroup affect	6.16(.32)	5.25(.18)	6.09*

Note. Cross-group relationship type infers extended contact (n = 25), same group relationship types infers no extended contact (n = 74). IG = Ingroup member.

\*p < .05, \*\*p < .01, \*\*\*p < .001.

## Figure Caption

Figure 1. Path analyses of the effect of relationship type on the interpersonal and intergroup measures, controlling for cross-group friendships and cross-group dating history (N = 99). Relationship type dummy coded: 1 = Same-group relationship/No extended contact, 2 = Cross-group relationship/Extended contact. IG = Ingroup member. Coefficients are standardized. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Figure 1.

