



## Cross-ethnic friendships, perceived discrimination, and their effects on ethnic activism over time: A longitudinal investigation of three ethnic minority groups

Linda R. Tropp<sup>1\*</sup>, Diala R. Hawi<sup>1</sup>, Colette Van Laar<sup>2</sup> and Shana Levin<sup>3</sup>

<sup>1</sup>Department of Psychology, University of Massachusetts Amherst, Massachusetts, USA

<sup>2</sup>Leiden University, The Netherlands

<sup>3</sup>Claremont McKenna College, California, USA

This research examines cross-ethnic friendships as a predictor of perceived discrimination and support for ethnic activism over time among African American, Latino American, and Asian American undergraduate participants from a multi-year, longitudinal study conducted in the United States. Our research builds on prior cross-sectional research by testing effects longitudinally and examining how relationships among these variables may differ across ethnic minority groups. Results indicate that, over time, greater friendships with Whites predict both lower perceptions of discrimination and less support for ethnic activism among African Americans and Latino Americans, but not among Asian Americans. Implications of these findings for future research on inter-group contact, minority–majority relations, and ethnic group differences in status are discussed.

Since its early origins, scholars of inter-group contact theory have proposed that interaction between members of different groups can be an effective strategy for reducing prejudice and improving inter-group relations (Allport, 1954; Pettigrew, 1998; Williams, 1947). Integrating results from hundreds of studies, recent meta-analyses indicate that contact between groups typically promotes prejudice reduction (Pettigrew & Tropp, 2006, 2011), and its prejudice-reducing effects are especially strong when the contact is in the form of close, cross-group friendships (Davies, Tropp, Aron, Pettigrew, & Wright, 2011). Cross-sectional and longitudinal studies also reveal reciprocal relationships between inter-group contact and prejudice, such that greater cross-group friendships predict lower levels of prejudice, at the same time as greater levels of

\*Correspondence should be addressed to Linda R. Tropp, Department of Psychology, University of Massachusetts Amherst, Amherst, MA 01003 USA (e-mail: tropp@psych.umass.edu).

prejudice predict fewer cross-group friendships (e.g., Binder *et al.*, 2009; Levin, Van Laar, & Sidanius, 2003; Pettigrew, 1997).

To date, most investigations have focused on the effects of inter-group contact among members of higher status, ethnic majority groups and relatively few studies have examined the effects of contact among lower status, ethnic minority groups (see Tropp & Pettigrew, 2005). Findings from those contact studies that do focus on minority perspectives reflect the general trend observed in the larger contact literature, whereby greater friendship contact predicts more positive inter-group attitudes. For example, with an ethnically diverse sample of undergraduates, longitudinal research by Levin and colleagues (2003) shows that students with more friends from other ethnicities are more likely to develop positive feelings towards other ethnic groups over time, relative to their feelings towards their own ethnic group. Analyses of US national survey data also show that Black Americans who report having close White friends are more likely to report positive interracial attitudes (Ellison & Powers, 1994; Powers & Ellison, 1995; Tropp, 2007). However, such positive outcomes of friendship contact are often weaker for minorities than for majorities (see Binder *et al.*, 2009; Tropp & Pettigrew, 2005).

Given that minority perspectives have been understudied in prior research (see Shelton, 2000), we currently have a limited understanding of the potentially distinct effects of contact among members of lower status, minority groups (see Tropp, 2006). Contact research has traditionally focused on how positive contact can reduce majority group members' prejudices towards minority groups, with little consideration of the factors that might predict minority group members' feelings about contact with the majority group (see Devine & Vasquez, 1998; Dixon, Tropp, Durrheim, & Tredoux, 2010), or how they might respond to the prejudice and discrimination they encounter from the majority group (see Dion, 2002; Shelton, Richeson, & Salvatore, 2005; Tropp, 2003). A central focus of the present research, therefore, is to examine the implications of positive inter-group contact for how members of minority status groups perceive discrimination and respond to their group's lower status.

### **Unintended consequences of positive inter-group contact among minority groups**

Nevertheless, there may also be some unintended consequences of positive inter-group contact for members of minority status groups. Specifically, emerging theory and research suggests that positive contact with the majority may make members of racial and ethnic minority groups less likely to perceive discrimination against their groups (Dixon, Durrheim *et al.*, 2010; Ellison & Powers, 1994; Rodriguez & Gurin, 1990; Wright & Lubensky, 2009), or to challenge structural inequalities and promote social change (Durrheim & Dixon, 2010; Reicher, 2007; Saguy, Tausch, Dovidio, & Pratto, 2009). The reasoning here is that positive contact between groups can shift group members' construals of inter-group relationships, such that they come to perceive their groups as being more connected and less in opposition to other groups (see Gaertner & Dovidio, 2000; Frey & Tropp, 2006). Among minority group members, this positive connection between the groups may lessen motivation to seek change in structural relations between groups (Wright & Lubensky, 2009), or to perceive that working towards social change is necessary (Dovidio, Gaertner, & Saguy, 2009). As noted by Reicher (2007), 'the fact that dominant group members act more pleasantly can make it harder to challenge them in their capacity as functionaries of racist institutions' (pp. 830-831).

Recent cross-sectional survey research lends support for this view. For example, national surveys in South Africa show that the more friendly and cooperative contact

Black South Africans have with Whites, the less discrimination they perceive against themselves and their racial group (Dixon, Durrheim *et al.*, 2010), and the less likely they are to support transformative social policies that would enhance racial equality (Durrheim & Dixon, 2010). Similarly, findings from a combined sample of African-American and Latino-American undergraduates show that the more respondents reported having positive contact with Whites, the less likely they were to endorse collective action as a means of achieving social equality (Wright & Lubensky, 2009). Thus, there is preliminary evidence to suggest that positive contact with the majority group can lead members of racial and ethnic minority groups to perceive less discrimination and become less inclined to engage in collective efforts towards social change.

Still, there remain a number of unresolved issues regarding inter-group contact as a predictor for minority perceptions of discrimination and support for ethnic activism. First, most studies investigating relationships between inter-group contact and perceived discrimination have relied on correlations between these variables from cross-sectional surveys (e.g., Dixon, Durrheim *et al.*, 2010; Rodriguez & Gurin, 1990). As such, we know little about possible bi-directional relationships between the variables, and whether inter-group contact actually predicts lower perceptions of discrimination over time, or alternatively, whether perceived discrimination might predict lower levels of inter-group contact over time. Given other work that perceived discrimination may inhibit minority group members' willingness to engage in contact (Shelton *et al.*, 2005; Tropp, 2003), greater elucidation regarding the direction of influence is needed. Our first research aim, therefore, is to examine longitudinally the nature of the relationship between inter-group contact and perceived discrimination over time.

Second, correlational studies that use inter-group contact to predict collective action among minorities (e.g., Wright & Lubensky, 2009) typically do not simultaneously consider the extent to which minorities' perceptions of discrimination are predicting their support for ethnic activism. Perceived discrimination has long been recognized as a key factor motivating collective efforts towards social change (Birt & Dion, 1987; Dion, 2002; Wright & Tropp, 2002). It is therefore possible that the observed association between inter-group contact and support for ethnic activism could partially be due to an overlapping association between perceived discrimination and support for ethnic activism. Further tests are needed to determine whether inter-group contact can uniquely predict support for ethnic activism once perceptions of discrimination are taken into account. Our second research aim is therefore to examine how inter-group contact predicts support for ethnic activism over time, and beyond the association between perceived discrimination and support for ethnic activism.

Third, existing research offers general conceptualizations of the relationships between minorities' experiences with inter-group contact and their perceptions of discrimination and support for ethnic activism, with limited consideration of whether associations among these variables may differ for members of different minority status groups. Groups with especially low status tend to be more aware of discrimination and more likely to support social change, as they are more severely challenged by existing status inequalities than other groups (Bobo, 1999; Gurin, Miller, & Gurin, 1980; Sidanius & Pratto, 1999). It is conceivable that positive contact with the majority would have greater effects on minority groups that are particularly low in status, because there is greater room for shifts in their perceptions of discrimination and support for social change. In the context of the United States, African Americans and Latino Americans are typically perceived as having lower status, whereas Asian Americans tend to be perceived as having higher status, and closer to Whites on the high end of the status hierarchy (see

Charles, 2001; Kahn, Ho, Sidanius, & Pratto, 2009). Correspondingly, we might expect African Americans and Latino Americans not only to report greater mean perceptions of discrimination and support for ethnic activism than Asian Americans, but for positive contact with Whites to predict more strongly lowered perceptions of discrimination and support for ethnic activism among African Americans and Latino Americans than among Asian Americans. Thus, our third research aim is to test whether positive inter-group contact differentially predicts perceived discrimination and support for ethnic activism among these three ethnic minority groups in the United States: African Americans, Latino Americans, and Asian Americans.

In sum, the present research examines inter-group contact as a predictor of perceived discrimination and support for ethnic activism over time among members of three distinct ethnic minority groups. These issues will be examined using data from one of the most extensive, multi-year longitudinal studies ever conducted in the area of inter-group relations, with responses from over 1,600 ethnic minority undergraduates at the University of California, Los Angeles in the United States (see Levin, Van Laar, & Foote, 2006; Levin *et al.*, 2003; Sidanius, Levin, Van Laar, & Sears, 2008; Sidanius, Van Laar, Levin, & Sinclair, 2004; Van Laar, Levin, & Sidanius, 2008; Van Laar, Levin, Sinclair, & Sidanius, 2005). Because this dataset includes measures of inter-group contact, perceived discrimination, and ethnic activism across different time points, it allows us to test each relationship of interest while correcting for other possible relationships among the variables. The specific hypotheses guiding our research are as follows:

- (1) Given that positive contact tends to be associated with less perceived discrimination (e.g., Dixon, Durrheim *et al.*, 2010), we expect that greater friendships with Whites early in college will generally predict lower perceptions of discrimination later in college (H1). In testing this hypothesis, we will also examine the alternative possibility that greater perceptions of discrimination early in college might predict fewer friendships with Whites later in college.
- (2) In line with emerging perspectives on inter-group contact (e.g., Durrheim & Dixon, 2010; Reicher, 2007; Wright & Lubensky, 2009), we also expect that greater friendships with Whites during college will predict lower support for ethnic activism by the end of college (H2), and beyond any association between perceived discrimination and ethnic activism.
- (3) Finally, we test whether these predicted longitudinal effects are consistent or distinct across the ethnic samples, and we predict that these relationships will especially be strong for African Americans and Latino Americans, as their groups occupy particularly low positions in the US status hierarchy (Kahn *et al.*, 2009; Sidanius & Pratto, 1999).

## Methods

### **Participants and procedure**

The multi-year longitudinal study was conducted at the University of California, Los Angeles (UCLA) between 1996 and 2001. In 1996, the ethnic composition of the entering class of students was 32% White, 36% Asian American, 18% Latino American, 6% African American, and 8% other or unreported ethnicity. Data collection for this dataset was conducted through telephone interviews at the end of students' first through fourth years of college.

To test our hypotheses, we conducted cross-lagged longitudinal analyses to examine relationships between contact with White friends and perceived discrimination across two different time points during college: the end of students' first year in college (Time 1), and combined responses from their second and/or third years (Time 2).<sup>1</sup> The model also examined the effects of these two variables at Time 2 on participants' support for ethnic activism by the end of college (Time 3), while controlling for their support for ethnic activism at Time 1.

For the present study, we initially selected the 1,368 members of the three major ethnic minority groups. The response rate dropped throughout the years, and was at 59% by Time 3; as such, there was sample attrition due to missing data. Sample loss occurred mostly during the final year of college. Extensive analyses revealed no systematic patterns of differences among attrition groups, and the effects of attrition were essentially what would be expected from chance (see Sidanius *et al.*, 2008 for a detailed discussion).

After list-wise deletion of missing data, the final sample for the three-wave longitudinal analysis consists of 771 participants: 54.1% Asian Americans ( $N = 417$ ), 36.6% Latino Americans ( $N = 282$ ), and 9.3% African Americans ( $N = 72$ ). Other ethnic minorities, such as Middle Eastern, Native American, and biracial students, were not included in the current analyses due to small sample sizes. Of these 771 participants, 55.3% were female (218 Asian American, 157 Latino American, and 51 African American), 41.6% were male (185 Asian American, 115 Latino American, and 21 African American), and 3.1% did not indicate their gender. Levin and colleagues (2003) and Van Laar and colleagues (2005) provide additional information concerning the ethnic and gender breakdown of the total sample across all waves.

## Measures

### *Friendships with whites*

To assess contact with White friends at Time 1 (WF1) and Time 2 (WF2), participants were asked to indicate in a single item how many of their closest friends at UCLA were Caucasian, on a scale from 1 ('None') to 5 ('All').

### *Perceptions of discrimination*

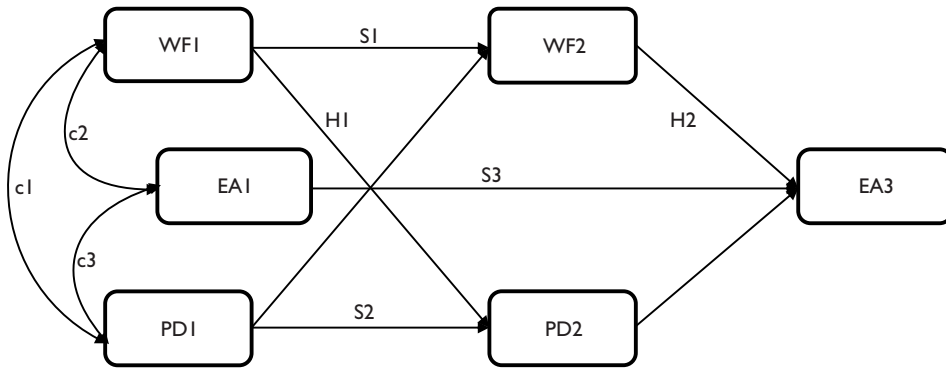
The measure for perceived discrimination on campus at Time 1 (PD1) and Time 2 (PD2) is the aggregate of two items, in which participants were asked whether they personally and whether other members of their ethnic group experienced discrimination at UCLA because of their ethnicity. Students rated the degree to which they agreed or disagreed with these statements on a scale from 1 ('strongly disagree') to 7 ('strongly agree'). Responses to the two items at each time point were averaged, and correlations between the two items were high in each of the ethnic minority samples (Time 1: African American  $r = .77$ , Latino American  $r = .73$ , Asian American  $r = .78$ ; Time 2: African American  $r = .66$ , Latino American  $r = .73$ , Asian American  $r = .82$ ).

### *Ethnic activism*

To assess support for ethnic activism at Time 1 (EA1) and Time 3 (EA3), participants were asked how seriously they had considered 'participating in demonstrations', 'signing petitions', and 'voting in terms of what is good for [their] ethnic group'. In three separate

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<sup>1</sup> In cases in which participants responded during their second and third years, these two responses were averaged. In cases in which only one response was available from these two years, then that available response was used in the analysis.



**Figure 1.** Conceptual model of cross-lagged longitudinal analysis using structural equation models for friendships with Whites (WF1, WF2), perceived discrimination (PD1, PD2), and ethnic activism (EA1, EA3).

items at each time point, participants rated the degree to which they seriously considered each of these activities on a scale from 1 ('not at all seriously') to 7 ('very seriously/Have done so'). Responses to the three items at each time point were averaged, and reliability coefficients for these three-item scales were high in each of the ethnic minority samples (Time 1: African American  $\alpha = .74$ , Latino American  $\alpha = .88$ , Asian American  $\alpha = .80$ ; Time 3: African American  $\alpha = .76$ , Latino American  $\alpha = .86$ , Asian American  $\alpha = .83$ ).

**Analytic strategy**

To determine the effect of friendships with Whites at Time 1 on perceptions of discrimination at Time 2, and vice versa, cross-lagged panel models of these measures at the two time points were analyzed across the three ethnic minority groups. In the same model, friendships with Whites and perceived discrimination during college were used as predictors of participants' support for ethnic activism at the end of college (Time 3), while controlling for ethnic activism at Time 1.

Figure 1 summarizes the conceptual framework and main research goals. Friendships with Whites, perceived ethnic discrimination, and support for ethnic activism are correlated (denoted by double-headed arrows) at Time 1 (paths c1, c2, and c3) to account for any initial covariation among scores on these measures. Paths (denoted by single-headed arrows) are drawn from one predictor variable to another variable at the next time point. The cross-lagged (or diagonal) paths estimate the effect of friendships with Whites on perceived discrimination over time (H1), and the alternative possibility that perceived discrimination may predict friendships with Whites over time. The relative size of the cross-lagged paths estimates the importance of friendships with Whites versus perceived discrimination on their respective Time 2 variables. Additional diagonal paths depict the effect of friendships with Whites on support for ethnic activism (H2), along with the effect of perceived discrimination on support for ethnic activism. The model also includes three 'stability' paths. The first (path S1) is drawn from friendships with Whites at Time 1 to friendships with Whites at Time 2. The second (path S2) is drawn from perceived discrimination at Time 1 to perceived discrimination at Time 2. The third (path S3) is drawn from ethnic activism at Time 1 to ethnic activism at Time 3.

Effects for African-American, Latino-American, and Asian-American participants were included in the same multi-group model, in which the regression estimates for paths from each ethnic group were allowed to vary. Rather than fitting separate models,

multi-group modelling was preferred, as this approach typically enhances the stability of path models, especially important given the relatively small size of the African-American sample (see Yuan & Bentler, 2001). The cross-lagged panel models were fitted using LISREL version 8.8 (Joreskog & Sorbom, 2007), using observed indicators and maximum likelihood estimation of parameters in path analysis.

To test the fit of the model to the data, several criteria and fit indices were used: chi-square, comparative fit index (CFI), non-normed fit index (NNFI), and root mean square error of approximation (RMSEA; Hu & Bentler, 1999). A non-significant value of chi-square is indicative of good fit; however, this statistic is overly sensitive to model misspecification when sample sizes are large (as in the case of the Asian-American sample). The values for CFI and NNFI are between 0 and 1, and higher values, particularly those greater than .95, indicate a better model fit (Bentler, 1990). RMSEA measures the discrepancy in fit per degrees of freedom (Steiger, 1990), such that values in the range of .06-.08 or lower imply a close approximate fit to the data (Browne & Cudeck, 1993; Vandenberg & Lance, 2000). Finally, the chi-square difference test was used to assess change in fit upon release of constraints (Kline, 2011). A constrained model assumes that there are no significant differences between the ethnic groups, while a variant model allows the paths for each ethnic group to vary. If paths are allowed to vary but the fit remains statistically equivalent to the constrained model, this indicates that the variant model does not improve the fit and that the ethnic groups are not significantly different from one another; however, if the variant model fits significantly better than the constrained model, this indicates that there are significant differences across ethnic groups (see Kline, 2011).

## Results

### ***Ethnic group comparisons: Friendships with Whites, perceived discrimination, and ethnic activism***

Preliminary analyses of variance (ANOVA) were conducted to examine whether there were mean differences in scores on measures of the key concepts between the three ethnic groups (see Table 1).

Regarding friendships with Whites, the overall ANOVA indicates significant ethnic differences both at Time 1,  $F(2,768) = 5.70, p = .003, \eta_p^2 = .02$ , and at Time 2,  $F(2,768) = 7.36, p = .001, \eta_p^2 = .02$ . Tukey's *post hoc* comparisons reveal that African-American participants typically reported fewer friendships with Whites, as compared to both Latino Americans ( $p = .002$  at Time 1,  $p = .001$  at Time 2) and Asian Americans ( $p = .03$  both at Time 1 and Time 2). Latino-American and Asian-American participants did not significantly differ in the number of White friends they reported at Time 1 ( $p = .28$ ), and they differed only marginally at Time 2 ( $p = .08$ ), with Latinos reporting marginally more friendships with Whites than Asian Americans.

Regarding perceived discrimination, the overall ANOVA also revealed significant ethnic differences both at Time 1,  $F(2,768) = 14.88, p = .001, \eta_p^2 = .02$ , and Time 2,  $F(2,768) = 33.63, p < .001, \eta_p^2 = .05$ . African-American participants reported significantly higher levels of perceived discrimination at Time 1 and Time 2 compared to Asian-American participants ( $p < .001$  at both times), and compared to Latino Americans at Time 2 ( $p < .001$ ), but not at Time 1 ( $p = .21$ ). Latino-American participants also reported significantly higher perceptions of discrimination at Time 1 and Time 2 compared to Asian-American participants ( $p < .001$  at both times). In other words, African-American participants tended to report the highest levels of perceived

**Table 1.** Mean scores and standard deviations for friendships with Whites (WF1, WF2), perceived discrimination (PD1, PD2), and ethnic activism (EA1, EA3)

		M	SD
Friendships with Whites Time 1	African American	1.93 <sub>a</sub>	.78
	Latino American	2.24 <sub>b</sub>	.77
	Asian American	2.16 <sub>b</sub>	.64
Friendships with Whites Time 2	African American	1.96 <sub>a</sub>	.67
	Latino American	2.30 <sub>b</sub>	.76
	Asian American	2.19 <sub>b</sub>	.65
Perceived discrimination Time 1	African American	3.25 <sub>a</sub>	1.59
	Latino American	2.94 <sub>a</sub>	1.52
	Asian American	2.48 <sub>b</sub>	1.25
Perceived discrimination Time 2	African American	3.85 <sub>a</sub>	1.45
	Latino American	3.16 <sub>b</sub>	1.40
	Asian American	2.63 <sub>c</sub>	1.89
Ethnic activism Time 1	African American	5.00 <sub>a</sub>	1.49
	Latino American	4.89 <sub>a</sub>	1.68
	Asian American	3.70 <sub>b</sub>	1.42
Ethnic activism Time 3	African American	5.24 <sub>a</sub>	1.43
	Latino American	4.83 <sub>a</sub>	1.75
	Asian American	3.71 <sub>b</sub>	1.53

Note. Within each measure, means with different subscripts differ significantly at the  $p < .05$  level of significance. For 'Friendships with Whites Time 2', the difference in means between Latino Americans and Asian Americans is marginally significant,  $p < .08$ .

discrimination at each time point, followed closely by Latino Americans, and Asian Americans tended to report the lowest levels of discrimination.

Additional ANOVA revealed significant differences in support for ethnic activism between the three ethnic groups at Time 1,  $F(2,768) = 60.10$ ,  $p < .001$ ,  $\eta_p^2 = .14$ , and by the end of college at Time 3,  $F(2,768) = 55.49$ ,  $p < .001$ ,  $\eta_p^2 = .13$ . Tukey's *post hoc* comparisons revealed that, at Time 1, African-American and Latino-American students reported significantly more support for ethnic activism than Asian-American students ( $p < .001$  in both cases), while they did not significantly differ from each other ( $p = .86$ ). Similarly, at Time 3, African-American and Latino-American students still reported significantly more support for ethnic activism than Asian-American students (both  $p$ 's  $< .001$ ), while these groups did not significantly differ from each other ( $p = .14$ ).

### **Path models: Predicting perceived discrimination and ethnic activism over time**

Using cross-lagged analyses on observed indicators, we tested longitudinally the extent to which friendships with Whites at Time 1 (WF1) predicts perceived discrimination at Time 2 (PD2), and conversely, the extent to which perceived discrimination at Time 1 (PD1) predicts friendships with Whites at Time 2 (WF2). Also, we tested longitudinally whether friendships with Whites at Time 2 (WF2), and perceived discrimination at Time 2 (PD2), predict support for ethnic activism at Time 3 (EA3), while controlling for support for ethnic activism at Time 1 (EA1). Correlations by ethnic group among the variables at each time point are also provided in Table 2.



**Table 2.** Correlation matrix for friendships with Whites (WF1, WF2), perceived discrimination (PD1, PD2), and ethnic activism (EA1, EA3) by ethnic group

	Friendships with Whites Time 1	Friendships with Whites Time 2	Perceived discrimination Time 1	Perceived discrimination Time 2	Ethnic activism Time 1	Ethnic activism Time 3
African American (N = 72)						
WF1	1					
WF2	.66**	1				
PD1	-.21†	-.13	1			
PD2	-.35**	-.20	.62**	1		
EA1	-.33**	-.29*	.15	.20†	1	
EA3	-.27*	-.34**	.09	.35*	.53**	1
Latino American (N = 282)						
WF1	1					
WF2	.61**	1				
PD1	-.07	-.15*	1			
PD2	-.13*	-.12*	.59**	1		
EA1	-.21**	-.25**	.35**	.32**	1	
EA3	-.26**	-.27**	.19**	.28**	.63**	1
Asian American (N = 417)						
WF1	1					
WF2	.47**	1				
PD1	.01	-.04	1			
PD2	.05	.04	.45**	1		
EA1	-.07	-.09	.23**	.21**	1	
EA3	-.01	.03	.13**	.27**	.48**	1

Note. \*Correlation is significant at the .05 level (two-tailed). \*\*Correlation is significant at the .01 level (two-tailed). †Correlation is marginally significant at the .08 level (two-tailed).

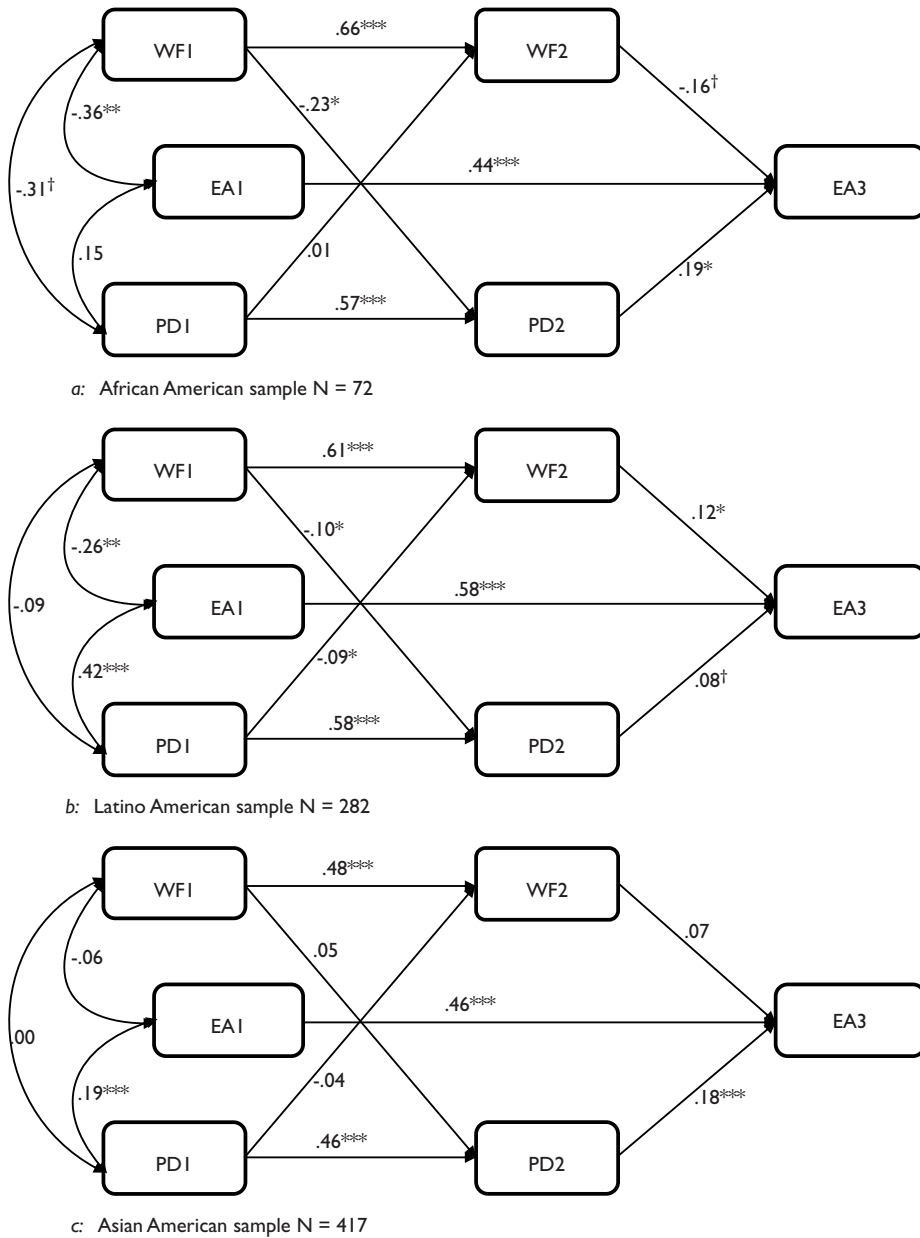
*Model fit*

In conducting these analyses, we compared the fit of the constrained multi-group model (assuming no significant differences across ethnic groups) to the variant multi-group model (allowing paths for each ethnic group to vary). A chi-square comparison test suggests that the multi-group model that allows paths to vary by ethnic group provides a better fit to the data than the constrained model (see Table 3 for goodness of fit indices). Generally, the other fit indices in Table 3 also suggest a good model fit for the variant model overall.

**Table 3.** Goodness of fit indices and comparisons between constrained and variant multi-group models for friendships with Whites (WF1, WF2), perceived discrimination (PD1, PD2), and ethnic activism (EA1, EA3)

	$\chi^2$	df	RMSEA	NNFI	CFI
Constrained model	77.82***	35	.07	.94	.96
Variant model	33.69**	15	.07	.94	.98
$\Delta$	44.14**				

Note. \*\*Significant at .01 level. \*\*\*Significant at .001 level.



**Figure 2.** Model predicting support for ethnic activism (EA3) from friendships with Whites (WF2) and perceived discrimination (PD2) across three ethnic groups. All paths represent standardized coefficients ( $†p \leq .09$ ,  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$ ). a: African-American sample ( $N = 72$ ). b: Latino-American sample ( $N = 282$ ). c: Asian-American sample ( $N = 417$ ).

*Model paths*

Unstandardized coefficients estimating model paths are reported below, and standardized coefficients are depicted in the figures to ease interpretation of the results. Figures 2a–2c display the standardized coefficients for the variant multi-group models by ethnic group, including the cross-lagged paths and the stability paths by which

each Time 2 variable is predicted by the same variable at Time 1. As shown in these figures, greater friendships with Whites at Time 1 predicted significantly lower levels of perceived discrimination at Time 2 among African Americans,  $b = -.43$ ,  $SE = .17$ ,  $p < .05$ , and Latino Americans,  $b = -.17$ ,  $SE = .09$ ,  $p = .05$ . However, among Asian-American participants, there was no significant relationship between friendships with Whites at Time 1 and levels of perceived discrimination at Time 2,  $b = .09$ ,  $SE = .08$ ,  $p = .26$ . Additionally, among Latino-American participants, greater perceived discrimination at Time 1 predicted fewer friendships with Whites at Time 2,  $b = -.05$ ,  $SE = .02$ ,  $p < .05$ , while this relationship was not significant among African-American participants,  $b = -.00$ ,  $SE = .04$ ,  $p = .90$ , or Asian-American participants,  $b = -.02$ ,  $SE = .02$ ,  $p = .39$ .

Figures 2-2c also display the standardized coefficients for the paths by which ethnic activism at Time 3 is predicted by friendships with Whites and perceived discrimination at Time 2, and by ethnic activism at Time 1. As shown in these figures, greater friendships with Whites at Time 2 predicted marginally lower support for ethnic activism at Time 3 among African-American participants,  $b = -.36$ ,  $SE = .21$ ,  $p = .09$ , and significantly lower support for ethnic activism at Time 3 among Latino-American participants,  $b = -.27$ ,  $SE = .11$ ,  $p < .05$ . However, among Asian-American participants, there was not a significant relationship between friendships with Whites at Time 2 and support for ethnic activism at Time 3,  $b = -.15$ ,  $SE = .10$ ,  $p = .13$ . Furthermore, greater perceptions of discrimination at Time 2 significantly predicted greater support for ethnic activism at Time 3 among African-American participants,  $b = .23$ ,  $SE = .10$ ,  $p < .05$ , and among Asian-American participants,  $b = .22$ ,  $SE = .05$ ,  $p < .001$ , but only marginally among Latino-American participants,  $b = .10$ ,  $SE = .06$ ,  $p = .08$ .

## Discussion

The present research examines how cross-ethnic friendships predict perceptions of discrimination and support for ethnic activism over time among African Americans, Latino Americans, and Asian Americans. In line with recent theorizing (e.g., Dixon, Durrheim *et al.*, 2010; Wright & Lubensky, 2009), we found some evidence that, over time, greater friendships with Whites predict both lower perceptions of discrimination (H1) and less support for ethnic activism (H2) among members of ethnic minority groups. Importantly, our findings build on prior cross-sectional research by demonstrating these effects longitudinally and by showing that these predicted relationships vary significantly across the three ethnic samples in our dataset.

Specifically, both the African-American and Latino-American samples revealed that greater friendships with Whites predict significantly lower perceptions of discrimination over time, yet this effect was not significant in the Asian-American sample. By contrast, perceived discrimination predicted friendships with Whites only among Latino-American respondents, and this relationship was quite weak among African-American and Asian-American respondents. Moreover, greater friendships with Whites tended to predict lower support for ethnic activism among African Americans,<sup>2</sup> and significantly lower

<sup>2</sup>Although the magnitude of the effect of friendships with Whites on ethnic activism was stronger among African Americans than among Latino Americans, the effect is marginally significant for the African-American sample while statistically significant for the Latino-American sample. The relatively small size of the African-American sample should be noted. Assuming the null RMSEA equals .10 (as a test of poor fit; see Kline, 2011), while the best possible model RMSEA equals .0, with a sample size of 72, the observed power for a test of close fit is only .18 (MacCallum, Browne, & Sugawara, 1996). Thus, for the African-American sample, the current analysis lacks sufficient power to detect the predicted effects, and the probability of a Type II error is very high. As such, the reported marginal effect is noteworthy, as it provides preliminary longitudinal evidence that greater friendships with Whites predict less support for ethnic activism over time among African Americans.

support for ethnic activism among Latino Americans, while there was no meaningful relationship between having White friends and supporting ethnic activism among Asian Americans.

It is especially striking to note that having White friends tend to predict lower support for ethnic activism among African-American and Latino-American participants, even after their perceptions of ethnic discrimination are taken into account. Experiences with discrimination pervade the lives of members of ethnic minority groups, and particularly those with lower status in the social hierarchy (Bobo, 1999; Gurin *et al.*, 1980), such as African Americans (e.g., Ashburn-Nardo, Monteith, Arthur, & Bain, 2007; Feagin, 1991; Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003) and Latino Americans (e.g., Araújo & Borrell, 2006). Reflecting such trends, African-American and Latino-American participants consistently reported greater ethnic discrimination, as well as greater support for ethnic activism, than Asian-American participants in this study.

Substantial theorizing and cross-sectional research has emphasized the importance of perceived discrimination and disadvantage as motivating factors for social change (Dion, 2002; Simon & Klandermans, 2001; Wright & Tropp, 2002). In line with this work, the present findings show that perceived discrimination at Time 2 correlates significantly with ethnic activism at Time 3 in all three ethnic samples (see Table 2). Yet, even when friendships with Whites and perceived discrimination are considered simultaneously as predictors, having White friends still meaningfully (and negatively) predict ethnic activism among our African-American and Latino-American respondents. Thus, it could be that having friendships with Whites shift African Americans' and Latino Americans' understandings of inter-group relationships that, while encouraging for achieving positive changes in inter-group attitudes (Brown & Hewstone, 2005; Pettigrew & Tropp, 2011), may inhibit their efforts to promote social equality (Saguy *et al.*, 2009; Wright & Lubensky, 2009).

Taken together, these results, along with other recent findings (see Dixon, Tropp *et al.*, 2010; Wright & Lubensky, 2009), lend a cautionary note regarding contact effects among ethnic minority groups, and especially those with low group status. Positive contact may inadvertently lessen minorities' perceptions of discrimination and efforts towards social change, and especially among those who are low in status and most likely to be adversely affected by social inequality. As such, they complement other findings showing that positive contact may lead minorities to falsely anticipate fair treatment from the majority (Saguy *et al.*, 2009), and that friendships with Whites can render perceptions of discrimination less predictive of interracial attitudes, at least among African Americans (Tropp, 2007). To minimize the possibility that positive contact would hinder efforts towards equality, contact between low- and high-status groups should include opportunities for enhancing awareness and discussions of structural inequalities to protect the interests of low-status groups in cross-group interaction (see Saguy, Tropp, & Hawi, in press; Sorensen, Nagda, Gurin, & Maxwell, 2009). In turn, future research must be directed towards identifying strategies that would allow us to achieve the dual goals of improving inter-group relations among groups of different status while promoting inter-group equality.

By contrast, in the Asian-American sample, we observe that only greater perceptions of discrimination – rather than friendships with Whites – uniquely predict greater support for ethnic activism. This is likely due to the combination of the tendency for perceived discrimination to correlate with ethnic activism (noted above), coupled with the lack of a significant relationship between friendships with Whites and support for ethnic activism among Asian Americans (see Table 2). Additionally, other findings suggest that there are only weak relationships between perceived discrimination and friendships with Whites

among Asian Americans in our sample. It may be that some of the discrimination Asian-American students perceive does not come exclusively from Whites (see Rosenbloom & Way, 2004), such that relationships with Whites would only modestly contribute to predicting their perceptions of discrimination or support for ethnic activism. It is also possible that studying subgroups of Asian Americans, including those who experience considerable disadvantage in American society (see Chou & Feagin, 2008; Takaki, 1998), would show more similar effects to those observed for African-American and Latino-American respondents. Still, based on the broad ethnic categorizations used in the present research, we observe some notable differences in patterns of prediction among ethnic minority groups with relatively low or high status in American society.

### **Conclusion**

Overall, results from this research add to the emerging body of research emphasizing important ways in which ethnic minorities' contact experiences are distinct from those of ethnic majority groups (see Shelton *et al.*, 2005; Tropp, 2003). Although positive contact can improve inter-group attitudes among both ethnic minority and majority groups (Binder *et al.*, 2009; Levin *et al.*, 2003; Tropp & Pettigrew, 2005), the implications of positive contact appear to differ for these groups, as it can diminish minority perceptions of discrimination and support for social change (see Dixon, Tropp *et al.*, 2010; Reicher, 2007; Wright & Lubensky, 2009). Moreover, the present research extends this prior work by showing how cross-ethnic friendships predict perceptions of discrimination and ethnic activism over time, and by demonstrating how the effects can be moderated by variability in group status among members of different ethnic minority groups.

As we describe the knowledge gained from this investigation, we must also acknowledge some limitations associated with the present research. In part, our work is guided by the view that positive contact can shift construals of inter-group relationships (Gaertner & Dovidio, 2000; Frey & Tropp, 2006), such that positive contact might make members of minority groups less likely to see their groups as in opposition to the majority group (Wright & Lubensky, 2009). However, we have not tested directly whether shifting construals of inter-group relationships mediate the associations between positive inter-group contact and minority perceptions of discrimination and support for ethnic activism. Examination of such processes should be pursued in further research, along with the question of whether such processes function similarly or differently among members of different minority groups.

Our findings are also limited by the use of a single-item indicator to assess friendships with Whites. Although single-item measures are oftentimes a necessary limitation of large-scale surveys, and this same single-item measure has been an effective predictor of various processes in other work (e.g., see Levin *et al.*, 2003; Levin *et al.*, 2006; Sidanius *et al.*, 2008; Van Laar *et al.*, 2008), multiple-item scales would surely be preferable and should be employed in future studies. Additionally, our predicted effect of inter-group contact on ethnic activism did not reach a conventional level of statistical significance in the African-American sample. However, we believe the trend we observed is meaningful, given the relatively small African-American sample available for our analysis, and our controlling for a wide range of variables throughout our analysis, which necessarily involved more stringent tests of the relationships of central interest. Thus, we believe the present research importantly extends prior work by clarifying the nature of relationships between inter-group contact and perceived discrimination and support for social change over time, and how these relationships may vary among members of distinct ethnic minority groups.

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