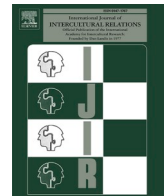




ELSEVIER

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

International Journal of Intercultural Relations

journal homepage: www.elsevier.com/locate/ijintrel

The interplay of positive and negative intergroup contact: Experiences of Latino/a Youth in the U.S.

Katrín Árnadóttir^{a,*}, Judit Kende^b, Karen Phalet^a, Linda R. Tropp^c

^a Center for Social and Cultural Psychology (CSCP), University of Leuven, Tiensestraat 102, box 3727, 3000 Leuven, Belgium

^b Laboratory of Social Psychology (UNILAPS), University of Lausanne, Quartier UNIL-Mouline, Bâtiment Géopolis, CH-1015 Lausanne, Switzerland

^c Department of Psychological and Brain Sciences, University of Massachusetts Amherst, Amherst, Massachusetts, USA

ARTICLE INFO

Keywords:

Intergroup contact
Positive contact
Negative contact
Minority groups
Social identity threat

ABSTRACT

This study examines the interplay of positive and negative intergroup contact with majority group members from the perspective of ethnic minority youth. Taking a social identity approach, we posit that negative contact experiences (i.e., hostile interactions) may undermine the benefits of *some* positive contact experiences (i.e., friendly interactions) for minority contact orientations (e.g., openness to and anxiety about cross-group interactions). Conversely, for *other* positive contact experiences, in particular high-quality forms of positive contact (e.g., friendship), we expect that their beneficial effects will not be undermined, and that the adverse effects of negative contact may even be buffered by such high-quality positive contact experiences. We tested our predictions in a sample of U.S. Latino/a youth ($N = 126$) nested in 41 classrooms, using a multilevel design. As expected, friendly interactions predicted more favorable contact orientations only in the absence of negative contact, while high-quality positive contact robustly predicted more favorable contact orientations and even buffered negative contact effects. These findings illuminate how negative contact can cast a long shadow over the inclusion of minority youth in intergroup settings; moreover, they indicate the importance of curbing hostile treatment targeting minority youth and of promoting high-quality positive contact over and above mere friendly interactions.

Imagine Sofia. Sofia is a 12-year-old Latina girl attending a middle school in Massachusetts (USA). At her school most students are White but there are also many Latino/a students. Sofia likes talking to all the kids at school regardless of their race. When she interacts with White kids, they are generally very nice and friendly to her. Last week, however, some White kids at her school called her names because of her Latina background. Ever since, Sofia noticed she feels less at ease with White kids. Although all kids at school are really nice to her and she tries hard to be nice to them, she can't help feeling anxious and a bit wary to engage in new contacts with White kids.

Sofia's hypothetical story synthesizes the mixed contact experiences of many ethnic minority group members with ethnic majority group peers. Although they may often experience positive contact in the form of friendly or polite interactions (e.g., Hayward, Tropp, Hornsey, & Barlow, 2017), the minority status of Latino/a youth in the U.S. often makes them targets of unfriendly or hostile treatment by White peers. Indeed, and particularly in recent years, Latino/a youth have been subjected to hostile and exclusionary messages in their schools and classrooms such as “you are not from here” or “go back home to Mexico” or peer avoidance, such as being excluded from play because of their background (Ayón & Philbin, 2017; Costello, 2016). These positive and negative experiences with majority peers

* Corresponding author.

E-mail addresses: katrin.arnadottir@kuleuven.be (K. Árnadóttir), judit.kende@unil.ch (J. Kende), karen.phalet@kuleuven.be (K. Phalet), tropp@umass.edu (L.R. Tropp).

<https://doi.org/10.1016/j.ijintrel.2021.12.004>

Received 24 March 2021; Received in revised form 24 November 2021; Accepted 7 December 2021

Available online 16 December 2021

0147-1767/© 2021 Elsevier Ltd. All rights reserved.

jointly inform minority group members' sense of belonging and inclusion in intergroup contexts (e.g., Baysu, Phalet, & Brown, 2014).

Until recent years, however, positive and negative intergroup contact have mostly been studied separately, with a predominant focus on positive contact (e.g., Brown & Hewstone, 2005; Pettigrew & Tropp, 2006). This earlier literature includes extensive evidence linking positive intergroup contact with favorable intergroup outcomes such as lower prejudice and more positive intergroup orientations (Kende, Phalet, Van den Noortgate, Kara, & Fischer, 2018; Lemmer & Wagner, 2015; Pettigrew & Tropp, 2006). Furthermore, much of the contact literature has traditionally focused on the perspectives of historically advantaged or dominant groups in society (i.e., majority groups), with a smaller number of studies focused on the perspectives of members of historically disadvantaged or minoritized groups (i.e., minority groups; see Tropp, Mazziotta, & Wright, 2017).

Research emphasizing minority perspectives has shown that, due their lower status position, minority group members are likely to experience contact differently than majority group members (e.g., Shelton, Richeson, & Vorauer, 2006; Tropp, 2006). For example, compared to majority group members, they are more likely to experience negative intergroup contact such as varied forms of prejudice or discrimination (Crocker, Major, & Steele, 1998; Stephan et al., 2002; Tropp, 2003). Latino/a youth like Sofia are no exception; they experience more discrimination than their majority peers both in and outside of school (Fisher, Wallace, & Fenton, 2000; Martinez, DeGarmo, & Eddy, 2004). Furthermore, they tend to evidence weaker positive effects of intergroup contact (Binder et al., 2009; Tropp & Pettigrew, 2005), and structuring the contact so that individuals have equal status within the contact situation is less likely to foster beneficial contact effects for minority group members (Tropp & Pettigrew, 2005).

We posit that minority group members' experiences of unfriendly or hostile interactions could potentially overshadow the psychological benefits of friendly interactions. Along those lines, recent evidence suggests that majority group members' positive and negative contact with minority group members do not only add up but are *dependent* on each other (Árnadóttir, Lolliot, Brown, & Hewstone, 2018; Fuochi et al. 2019; Paolini et al. 2014). However, current understanding of how this interplay affects the orientations of *minority* group members towards the majority group is more limited (Árnadóttir et al., 2018). The present study contributes to filling this gap by examining the interplay of positive and negative contact from the perspective of ethnic *minority* group members, specifically Latino/a youth in the United States. We ask how often majority peers are friendly or nice to them; and how often they are unfriendly or hostile, and how the interplay of those experiences relates to the contact orientations of minority youth. We define minority contact orientations as general feelings and attitudes about contact with majorities: to what extent are they feeling anxious or at ease in contact situations, and how much they are open to, or avoidant of, future contact with majority peers. Understanding how mixed contact experiences with majority group members inform minority group members' contact orientations has important applied implications for effectively promoting their well-being and social inclusion in diverse contexts.

Highlighting minority perspectives on intergroup contact: a social identity approach

Adopting a social identity perspective (Tajfel & Turner, 1986), we contend that perceiving one's ingroup to be devalued threatens one's social identity (Branscombe, Ellemers, Spears, & Doosje, 1999). Negative intergroup contact experiences such as unfriendly or discriminatory treatment can trigger social identity threat, forcefully communicating to minority group members that they are not welcomed or accepted by the majority group, and that their minority identity is devalued in the intergroup context (Branscombe et al., 1999). This devaluation can lead them to feel threatened during and following intergroup contact (Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003), as well as anxious and less positive about engaging in further intergroup contact (Tropp, 2003). They may also be vigilant against potential discrimination during contact (Steele, Spencer, & Aronson, 2002) and worried about becoming targets of negative treatment (Devine & Vasquez, 1998; Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002; Stephan & Stephan, 1985). Social identity threat, triggered by negative contact, may also lead minority group members to engage in compensatory strategies during intergroup interactions, such as smiling and self-disclosing more, in the hopes of warding off potential discrimination (Miller, Rothblum, Felicio, & Brand, 1995; Shelton, Richeson, & Salvatore, 2005). Such strategies are taxing and are associated with intergroup tension and anxiety (Shelton et al., 2005). Taken together, we posit that identity threat, triggered by negative contact, may overshadow some of minority group members' more positive intergroup contact experiences, undermining their beneficial effects.

The interplay of positive and negative contact: can negative contact overshadow minority group members' positive contact experiences?

We expect that the effect of minority group members' positive contact may *depend* on whether they also experience negative contact. Specifically, we expect that by triggering social identity threat, negative contact may undermine the benefits of some positive contact experiences, such as friendly interactions, for their more general contact orientations. There is preliminary evidence supporting this expectation. For example, Tropp (2007) found that Black Americans' intergroup contact was more weakly associated with feelings of closeness when they perceived greater racial discrimination, and non-significant when discrimination was substantial. Furthermore, testing the interplay longitudinally in New Zealand, Barlow et al., (2019) found that minority group members' positive contact was dissociated from feelings of warmth towards the majority when negative contact was more frequent. Similarly, Hayward et al. (2017) found that Latino/a and Black Americans tended to avoid Whites when experiencing negative contact alongside frequent positive contact. Finally, in a small sample of Polish immigrants to Iceland, Árnadóttir et al. (2018) observed that negative contact may undermine positive contact effects. Overall, this prior research indicates that minority group members' negative contact may overshadow the potential benefits of their positive experiences.

In parallel, some researchers have found that positive contact may protect group members from the detrimental effects of negative contact. Although such buffering effects have primarily been found in majority samples (e.g., Árnadóttir et al., 2018; Paolini et al.,

2014), they have also been reported in minority samples. For example, examining warmth and anger towards outgroups, Barlow et al. (2019) found indication of undermining effects for minority group members in their longitudinal analysis, yet their cross-sectional analyses yielded consistent buffering effects. Likewise, although the findings of Hayward et al. (2017) indicated undermining effects for outgroup avoidance and empathy, they also found one case in which positive contact buffered the effects of negative contact (i.e., on outgroup evaluations).

Taken together, prior findings on the interplay of positive and negative contact for minority group members are limited. There is indirect and some direct evidence, however, that negative contact may overshadow the benefits of minority group members' positive contact experiences. In the current study, we advance a critical distinction to this interplay. We posit that negative contact may undermine the benefits of *some* positive contact experiences, such as more casual friendly interactions, so that they fail to effectively generalize to favorable contact orientations, such as openness to contact and ease in intergroup settings, in the presence of negative contact. Conversely, for *other* positive contact experiences, in particular *high-quality* forms of positive contact such as friendship, we expect that their beneficial effects will not be undermined, and that the adverse effects of negative contact may even be buffered by such high-quality positive contact experiences.

Contact quality: how robust are high-quality positive contact effects in the presence of negative contact?

While negative contact can trigger social identity threat for minority group members, positive contact has the potential to convey that they are included in intergroup contexts, and hence, that their minority identity is valued (Baysu et al., 2014; Derks, Van Laar, & Ellemers, 2007). Importantly, positive contact experiences vary substantially in *quality*; ranging from brief casual encounters to intimate, enduring contact where individuals relate as equals (Hayward et al., 2017). It is plausible that friendship or other forms of high-quality positive contact more effectively communicate identity valuation than more casual forms of positive contact, and therefore, they may be more robustly associated with favorable contact orientations despite negative contact experiences. High-quality positive contact reflects optimal conditions that denote equal status, common goals and cooperation between members of different groups (Pettigrew, 1998). Additionally, intimacy (i.e., feeling that the contact is intimate rather than superficial) is indicative of high-quality positive contact (Islam & Hewstone, 1993). While optimal contact conditions facilitate beneficial contact effects for *majority* group members (Tropp & Pettigrew, 2005), this does not typically generalize to minority group members. One possible reason is that often it has been the researcher who defines what constitutes equal status *within* the contact situation, but this need not imply that minority group members themselves actually feel valued, given their unequal societal status (Saguy, Tropp, & Hawi, 2013; Tropp, 2006). Indeed, when high-quality positive contact has been defined by individuals' own *perceptions*, that is, by gauging whether the individuals involved in the contact themselves perceive the contact to be of high-quality (e.g., they feel that they are seen as equals) such contact appears to be equally beneficial for majority and minority group members (Kanas, Scheepers, & Sterkens, 2015). Against this background, the current study focuses on two distinct forms of high-quality positive intergroup contact: intergroup friendship and minority youths' *own perceptions* of high-quality positive contact.

We focus on intergroup friendship, because friendship has been consistently associated with reduced prejudice and more favorable intergroup attitudes (see e.g., Davies, Tropp, Aron, Pettigrew, & Wright, 2011, for a meta-analysis). Furthermore, intergroup friendship is a particularly *robust* form of contact, yielding positive effects even in the presence of negative intergroup experiences, perhaps even buffering such experiences. For instance, it predicted more positive intergroup attitudes among majority and minority group members who previously experienced high levels of intergroup conflict in Northern Ireland, Indonesia, or the Philippines (Kanas, Scheepers, & Sterkens, 2017; Voci, Hewstone, Swart, & Veneziani, 2015); and its effects were even *stronger* at higher levels of experienced conflict (Voci et al., 2015). Moreover, friendship predicted increased feelings of interracial closeness among Black Americans experiencing discrimination, even buffering discrimination effects (Tropp, 2007).

The reason for such robust beneficial effects may be that intergroup friendship mitigates identity threat. Thus, friendship reduced minority group members' anxiety in intergroup settings, in particular among those expecting race-based discrimination or rejection (Page-Gould, Mendoza-Denton, & Tropp, 2008), and it enabled U.S. Latino/a youth to feel socially and emotionally safer in school (Graham, Munniksmá, & Juvonen, 2014; Munniksmá & Juvonen, 2012). Furthermore, by definition it implies intimate and sustained contact, which may convey *equal status* (Pettigrew, 1998; Turner, Hewstone, Voci, Paolini, & Christ, 2007), and a sense that one's outgroup friends *value one's ingroup* (Davies & Aron, 2016). From a social identity perspective, we therefore conceive of intergroup friendship as high-quality positive contact, which likely communicates to minority youth that they are valued as equals, even in discriminatory intergroup contexts. Consequently, its benefits may be less vulnerable to identity threat, as triggered by negative contact, than other more casual forms of positive contact, which less effectively communicate identity valuation.

While we conceive of intergroup friendship as high-quality positive contact on the basis that it *likely* conveys identity valuation, we acknowledge that it does not necessarily imply the absence of identity threat from a minority perspective. For instance, there is some evidence of intergroup asymmetry when category-based teasing among friends is seen as friendly banter by majority group members while it makes their minority friends insecure as to whether they are valued as equals (Greenland, Augoustinos, Andreouli, & Taulke-Johnson, 2019). In addition to intergroup friendship, we therefore add a direct measure of the perception of high-quality positive contact by minority group members *themselves* (Molina & Wittig, 2006). In line with prior work on the optimal contact conditions that characterize high-quality positive contact, this composite measure assessed the extent to which minority youth perceived that they are seen as equals during contact and the extent to which they felt the contact was intimate and cooperative (Islam & Hewstone, 1993; Pettigrew, 1998). We reason that this latter measure should be most robustly associated with favorable contact orientations, to the extent that it directly captures minority youths' perception that their minority identity is valued, even in the presence of identity threat. To sum up, we ask whether friendship or perceived high-quality positive contact can be beneficial for

minority contact orientations even in the face of identity threat, triggered by negative contact. We expect that minority youths' friendships with majority group members and other high-quality positive contact experiences will be reliably associated with more favorable contact orientations, regardless of negative contact.

The present research

The present research adds to current literature by examining the interplay of positive and negative intergroup contact from the perspective of ethnic *minority* group members, and its consequences for their contact orientations, specifically their openness to intergroup contact and their feelings of anxiety and ease in intergroup settings. Furthermore, this study extends prior work by distinguishing between different forms of positive contact and examining their differential interplay with minority group members' negative contact. Specifically, we examined minority experiences of positive intergroup contact in the form of friendly interactions with members of other racial groups, as well as friendship or other *high-quality* positive contact, measured as minority group members' own subjective reports of contact quality.

In line with prior work, we posit that negative intergroup contact signals to minority group members that their identity is devalued (Branscombe et al., 1999), and will hence be associated with more negative contact orientations. Our hypotheses center around positive contact experiences, however, and their interplay with negative contact. We propose that minority group members' responses to positive contact in the form of friendly interactions with outgroups will depend on whether they are also experiencing negative contact. Specifically, we expect that the association of friendly interactions with more favorable contact orientations will disappear in the presence of negative contact. In contrast, we expect that *high-quality* positive contact, such as intergroup friendship, as distinct from other, more casual forms of positive contact, will be robustly associated with more favorable contact orientations, even for minority group members experiencing negative contact. As a first conservative test of our hypotheses, we selected a relatively benign intergroup context, one we expected to be characterized by highly frequent positive contact and relatively rare negative contact experiences (Tropp et al., 2016). Specifically, our Latino/a participants (i.e., youth of Latino/a heritage) were sampled from three public middle schools in the northeastern United States.

Our hypotheses are as follows:

H1. : The association of friendly intergroup interactions with minority group members' contact orientations will depend on the presence or absence of negative intergroup contact in the intergroup context, so that friendly interactions will be associated with more favorable contact orientations, i.e., (i) more openness, (ii) increased ease and (iii) lower anxiety *only* in the absence of negative contact (overshadowing hypothesis).

H2. : Minority group members' experiences of intergroup friendship (H2a) and perceived high-quality positive intergroup contact (H2b) will be robustly associated with more positive contact orientations, i.e., (i) more openness, (ii) increased ease and (iii) lower anxiety, regardless of negative intergroup contact (robustness hypothesis).

Method

Participants and procedure

For the present study we draw on data collected in 53 classrooms in 3 public schools in the northeastern United States. At the time of data collection, the Department of Education website indicated that, in each school, (non-Latino/a) White pupils formed the majority group (69%, 69% and 56.1%, respectively) and Latino/a pupils the largest minority group (22.2%, 23.5%, and 36%, respectively). In each school therefore, White and Latino/a pupils collectively formed over 90% of the student population. As some of the classes sampled included no Latino/a pupils, 41 classrooms were included in the final analysis. Our sample consisted of 126 Latino/a minority youth in the 6th and 7th grade (10–14 years, $M_{age} = 11.68$, $SD_{age} = .76$, 52.4% female, 47.6% male).¹ Participants were classified as Latino/a if they marked "Latino" as their racial background or wrote in an ethnic background indicating Latino/a heritage or origins, such as "Salvadoran" or "Puerto Rican." Students from other racial and ethnic backgrounds, and of mixed heritage, were excluded from analysis. After obtaining parental consent and students' assent, students completed surveys during class in the middle of the school year, as part of a larger study. Members of the research team introduced the study to each class and distributed surveys to participating students. Students were informed that the study concerned "why kids become friends with other kids," and they were assured that there were no right or wrong answers to the questions.

Measures

The terms "race" and "racial group" were used in survey items instead of "ethnicity" or "ethnic," because pilot testing revealed that the terms "race" and "racial group" were more readily understood by students in these public middle schools. Independent measures were a single indicator of negative intergroup contact as well as three indices for distinct forms of positive intergroup contact, two

¹ While the sample size is modest, a post hoc power analysis (with a 6 predictor variable equation and $p < .05$) using GPower (Faul, Erdfelder, Buchner, & Lang, 2009) revealed that the statistical power for this study exceeded .90 for the detection of moderate to large effect sizes ($f^2 = .15$ and above; see Cohen, 1977). Thus, there was more than adequate power at the moderate to large effect size level.

single indicators (i.e., friendly intergroup interactions and intergroup friendship) and one composite index assessing minority youth's own perceptions of high-quality positive intergroup contact.

Negative intergroup contact with outgroup peers was measured with one item capturing hostile interactions with outgroups, i.e., "In this school, I am sometimes treated badly by other kids because of my race" (1-*not at all* to 5-*very much*, $M = 1.48$, $SD = 1.04$).

Friendly intergroup interactions with outgroup peers was measured with one item, i.e., "In general, when you interact with kids from other racial groups, how nice are they to you?" (1-*not at all* to 5-*very much*, $M = 4.31$, $SD = 0.84$).

Intergroup friendship was measured with a single item. For the purposes of this study, we focused on friendships Latino/a pupils had with their White majority peers. Intergroup friendship was thus measured with the question "How many of your friends are White?" (1-*none at all* to 5-*very many*, $M = 3.34$, $SD = 1.22$).²

Perceived high-quality positive intergroup contact with peers was a composite measure consisting of four items ($\alpha = 0.85$). First, participants read the stem statement "In general, when I interact with kids from other racial groups." and then responded to the following items: ".it feels like we have a lot in common", ".it feels like we cooperate, like we're on the same team", ".it feels like we are equals, like we are treated the same" and ".it feels close, like with good friends and family" (1-*not at all* to 5-*very much*, $M = 4.36$, $SD = 0.81$).

Dependent variables were openness, ease in interactions with peers and anxiety in intergroup interactions.

Openness was a composite measure capturing openness to intergroup contact in general (not only peers), consisting of three items ($\alpha = 0.62$)³; "I am happy to become friends with kids from different races", "I feel like I can learn a lot from interacting with people of different races" and "I want to understand how people from other racial groups see the world" (1-*not at all* to 5-*very much*, $M = 4.26$, $SD = 0.75$).⁴

Ease in interactions with peers was a composite measure, capturing ease in interactions with peers *in general* (rather than only in interactions with outgroup members). By capturing ease in this way this measure thus assesses minority group members' more general sense of connectedness to peers.⁵ The measure consisted of three items ($\alpha = 0.70$)⁶; "I get along well with other kids", "I am good at working with other kids" and "It is easy for me to make friends" (1-*not at all* to 5-*very much*, $M = 4.20$, $SD = 0.75$).

Anxiety in interactions with outgroup peers was measured with the question "In general, when you interact with kids from other racial groups, how anxious do you feel, like you don't know how to act around them?" (1-*not at all* to 5-*very much*, $M = 2.66$, $SD = 1.41$).

Control variables. In line with prior research on the intergroup contact experiences of minority youth (e.g., Heikamp et al., 2020; Kende, Baysu, Van Laar, & Phalet, 2021), we included as control variables participants' age (range 10–14, $M = 11.68$, $SD = 0.76$) and gender (0 = *boy*, 1 = *girl*) at the individual level, and the proportion of majority peers (i.e., classmates who self-defined as White) present at the class-level (range 14–86%, $M = 46.74\%$, $SD = 16.78$), thereby accounting for the ethnic composition of the classroom.

Analytic strategy

All analyses were conducted using Mplus 7 (Muthén & Muthén, 2012). To account for the nested data structure of students (individual level) within classes (class level) we ran multilevel regression analyses. Given the relatively small sample and since dependent measures form distinct constructs, separate two-level regression analyses were conducted for each construct. All models were estimated using Maximum Likelihood estimation with robust standard errors, accounting for skewness in our measures. To test our hypotheses, we thus replicated the same analyses for (a) openness, (b) ease, and (c) anxiety. Furthermore, as we had no hypotheses about the interplay between forms of positive contact, we tested our hypotheses by estimating separate models for (i) friendly intergroup interactions (hereafter "friendly interaction model(s)"), (ii) intergroup friendship (hereafter "friendship model(s)") and finally (iii) perceived high-quality positive contact (hereafter "quality model(s)"). This allowed us to test each effect independently and to replicate the interplay with negative contact across different forms of positive contact.

These analyses were conducted in consecutive steps (Hox, Moerbeek, & van de Schoot, 2010; Tabachnick & Fidell, 2013). Starting with H1 (overshadowing hypothesis), we first estimated the null model(s) for each dependent variable. Secondly, we estimated the model(s) including only level 1 predictors, that is friendly interactions and negative contact, controlling for age and gender ("main effects" model(s)). In a third step, the level 2 control variable capturing majority proportions in classrooms was added to the model(s) ("two-level main effects" model(s)). In a fourth step, we added the interaction between friendly interactions and negative contact ("interaction" model(s)). To find support for H1 (overshadowing hypothesis), we would need to find that adding the interaction between friendly interactions and negative contact to the main effects models results in a significant improvement in model fit and that the interaction term is statistically significant. We expect that decomposing the interaction will indicate that negative contact experiences moderate (i.e., cancel out) the positive association of friendly intergroup interactions with more favorable contact orientations.

For H2 (robustness hypothesis), we followed the same steps, i.e., starting with the null model(s), secondly level 1 predictors, that is either (a) intergroup friendship and negative contact, or (b) perceived high-quality positive contact and negative contact, controlling

² The intergroup friendships of Latino/a youth were most frequently with White peers ($M = 3.34$, compared to $M = 2.56$ Black, and $M = 1.56$ Asian).

³ The average inter-item correlation was $r = 0.36$.

⁴ The last two items are based on a learning orientation index (Migacheva & Tropp, 2013).

⁵ For examples of research showing that the intergroup contact experiences of minority youth inform their sense of (general) connectedness and belonging see e.g., Graham et al. (2014); Heikamp, Phalet, Van Laar, and Verschuere (2020); Munniksmá & Juvonen (2012).

⁶ The average inter-item correlation was $r = 0.44$.

for age and gender (“main effects” model(s)). In a third step, adding the level 2 control variable majority proportions in classrooms (“two-level main effects” model(s)). In a fourth step, adding the interaction with negative contact to each model i.e., (a) intergroup friendship and negative contact to the friendship model(s), and (b) perceived high-quality positive contact and negative contact to the quality model(s). To find support for H2, we would need to find that (a) intergroup friendship and (b) perceived high-quality positive intergroup contact are consistently associated with more favorable contact orientations, regardless of negative contact. More precisely, to establish generalizability in line with H2 we would need to find significant main effects of intergroup friendship and perceived high-quality positive contact and non-significant interaction effects with negative contact. Alternatively, finding significant main effects of intergroup friendship and perceived high-quality positive contact and a significant interaction pattern whereby intergroup friendship or high-quality positive contact would buffer or reduce the expected adverse effect of negative contact would also be consistent with our robustness hypothesis.

Results

Preliminary analysis

We started with null models for each dependent variable, i.e., empty models that include only the intercept of the dependent variable. Each null model provides an estimate of the breakdown of the variance at the individual- and class-level. While all three dependent variables had significant variance at the individual-level, none had significant variance at the class-level.⁷ Regardless, we retained the two-level structure to account for the nested structure of the data. For all subsequent models, we tested the improvement in model fit using the robust Satorra-Bentler scaled chi-square difference tests of log-likelihood ratio ($\Delta\chi^2$) (Muthén & Muthén, 2012; See Tables S1–S3 (stepwise friendly interaction models), S4–S6 (stepwise friendship models), and S7–S9 (stepwise quality models) in online Supplementary materials for model fit statistics). Following running the “main effects” models, we added the class-level predictor capturing the proportion of majority peers in the classroom (“two-level main effects” model(s)). This did not result in a significant improvement in model fit over the “main effects” models. However, as research indicates that majority presence in classrooms can influence both quality and quantity of minority group members’ intergroup contact experiences (e.g., Baysu et al., 2014), we tested our hypotheses while taking the proportion of majority peers in the classroom into account. Prior to testing our interaction hypotheses, we ran the “two-level main effects” friendly interaction models to examine the main effects of friendly interactions and negative contact. In these models, friendly interactions were not significantly associated with openness ($b = 0.14$, $SE = 0.09$, $p = .110$), ease ($b = 0.09$, $SE = 0.10$, $p = .365$), or anxiety ($b = -0.05$, $SE = 0.16$, $p = .759$). Negative contact was significantly associated with less ease ($b = -0.17$, $SE = 0.07$, $p = .023$), but it was not associated with openness ($b = -0.05$, $SE = 0.07$, $p = .515$) or anxiety ($b = 0.11$, $SE = 0.13$, $p = .397$).

See Table 1 for correlations between the study variables.

Does negative contact overshadow positive contact effects for minorities? (H1)

We next added the interaction between friendly interactions and negative contact to the models predicting openness, ease and anxiety, respectively (“interaction” models). As expected, this resulted in significant improvements in model fit ($ps < 0.001$), and there was a significant interaction between friendly interactions and negative contact in all three cases ($b = -0.22$, $SE = 0.08$, $p = .006$ for openness; $b = -0.23$, $SE = 0.07$, $p = .001$ for ease; and $b = 0.47$, $SE = 0.11$, $p < .001$ for anxiety). Furthermore, in adding the interaction, the explained variance of each model (about or more than) doubled. Please note that we report here only the findings from these “interaction” models. For the results of all stepwise friendly interaction models that we ran as part of our preliminary analysis (i.e., null models, “main effects” models and “two-level main effects” models) see Tables S1–S3 in online Supplementary materials. The results for the interaction models are displayed in Table 2.

Next, we evaluated H1 (overshadowing hypothesis), decomposing these interactions and examining whether negative contact experiences moderate (i.e., cancel out) the positive association of friendly interactions with more favorable contact orientations.

To interpret the interplay between friendly interactions and negative contact in predicting minority contact orientations, we plotted the interactions. More specifically, we estimated the predicted values of openness, ease and anxiety at low and high friendly interactions and at low and high negative contact. We set out to define low and high values as minus or plus one standard deviations from the mean of each analysis. However, for negative contact, $-1SD$ was outside the range of the data. We therefore decomposed the interaction at *no* negative contact and at $+1SD$ (corresponding to 2.52). As for friendly interactions, $+1SD$ was outside the range of the data. It was therefore decomposed at $-1SD$ (3.47) and at the maximum value (5). Thus, we estimated the magnitude of openness, ease and anxiety at all four possible combinations of the predictors (i.e., low friendly interactions and no negative contact, low friendly interactions and some negative contact, high friendly interactions and no negative contact, high friendly interactions and some negative contact). Finally, we used a Wald test to evaluate whether the difference between these four estimated values was significant.

Starting with openness (H1i), we found that when participants reported high levels of friendly interactions, they were more open to intergroup contact when they did not experience negative contact as opposed to when they experienced some negative contact ($p = .027$). In contrast, there were no significant differences in openness between those participants that reported only some friendly

⁷ The intra-class correlation (ICC) was .003 for openness, .007 for ease, and .073 for anxiety.

Table 1
Correlations among Control, Predictor and Outcome Variables.

	1	2	3	4	5	6	7	8	9	10
1. Age	–									
2. Gender	-0.09	–								
3. Friendly intergroup interactions	.11	.11	–							
4. Negative intergroup contact	.00	-0.02	-0.26**	–						
5. Intergroup friendship	-.06	.11	.18†	-0.05	–					
6. Perceived high-quality positive intergroup contact	.07	.10	.19*	-0.02	.37***	–				
7. Openness	-0.07	.18*	.18*	-0.10	.24**	.22*	–			
8. Ease	.05	-0.00	.16†	-0.26**	.24**	.33***	.31***	–		
9. Anxiety	.09	.06	-0.04	.08	-0.11	.02	-0.08	-0.07	–	
10. Majority % in classroom	-0.22 *	.08	-0.01	-0.02	.15	.11	.07	.01	.15	–

Note: †p < .1, *p < .05, **p < .01, ***p < .001.

Table 2
“Interaction Model” Results for Friendly Interaction Models.

	Openness	Ease	Anxiety
INDIVIDUAL LEVEL			
Friendly intergroup interactions (FI)	0.16 (0.08)*	0.11 (0.08)	-0.09 (0.15)
Negative intergroup contact (NC)	-0.13 (0.08)	-0.26 (0.08)**	0.29 (0.12)*
FI*NC	-0.22 (0.08)**	-0.23 (0.07)**	0.47 (0.11)***
Control variables			
Age	0.01 (0.10)	0.16 (0.10)	0.16 (0.20)
Gender	0.19 (0.14)	0.06 (0.15)	0.23 (0.22)
CLASS LEVEL			
Majority % in classroom	0.22 (0.30)	0.20 (0.38)	1.55 (0.86)
EXPLAINED VARIANCE			
R ² individual level	0.12 (0.06)*	0.17 (0.07)*	0.12 (0.04)**
R ² class level	0.34 (7.69)	0.03 (0.12)	0.63 (0.63)
MODEL FIT			
Deviance (-2LL)	253.31	253.18	396.31
Akaike (AIC)	271.31	271.18	414.31
Bayesian (BIC)	296.32	296.27	439.17
Sample-Size Adjusted BIC	267.87	267.82	410.72

Note: Entries represent unstandardized coefficients (SE).

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

interactions ($p = .408$, see Fig. 1). An analysis of the regions of significance of these effects indicated that the positive association between friendly interactions and openness was only significant for participants reporting 1.48 or lower on the negative contact scale (range 1–5, 1 representing *no* negative contact), indicating that all respondents who reported *any* negative contact (22%) would not benefit from friendly interactions. These findings are clearly in line with H1i.

As for ease (H1ii), we similarly found that in line with expectations that when participants reported high levels of friendly interactions, they reported more ease when they did not experience negative contact as opposed to when they experienced some negative contact ($p < .001$). In contrast, there were no significant differences in ease between those participants that reported only some friendly interactions ($p = .322$, see Fig. 2). An analysis of the regions of significance similarly revealed that the positive association between friendly interactions and ease was only significant for participants reporting 1.28 or lower negative contact, again indicating

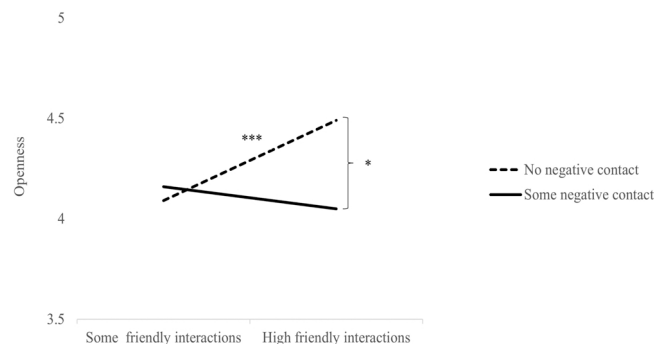


Fig. 1. The Interplay of Friendly Intergroup Interactions and Negative Intergroup Contact Predicting Openness.

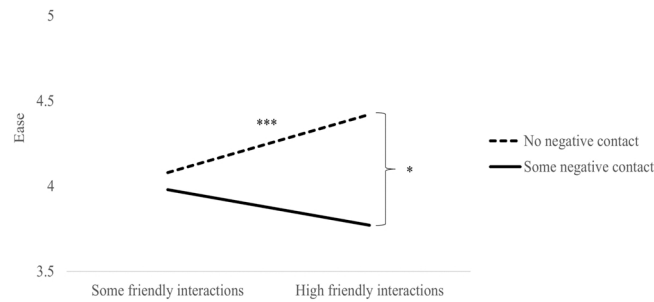


Fig. 2. The Interplay of Friendly Intergroup Interactions and Negative Intergroup Contact Predicting Ease.

that experiencing *any* negative contact is enough to cancel out the beneficial association between friendly interactions and ease.

Finally, for anxiety (H1iii), we again found support for our prediction. When participants reported high levels of friendly interactions, they were less anxious when they did not experience negative contact as opposed to when they experienced some negative contact ($p < .001$). In contrast, there were no significant differences in anxiety between those participants that reported only some friendly interactions ($p = .448$, see Fig. 3). Analysis of the regions of significance showed that while friendly interactions were marginally associated with less anxiety in the absence of negative contact, they were significantly associated with *higher* anxiety among those participants that reported 2.28 or higher negative contact. In our sample, 15% of participants reported experiencing enough negative contact to be affected. Taken together we thus find consistent support for H1 for all three dependent variables.

Is high-quality positive contact robustly associated with more positive contact orientations? (H2)

Next, we turned to H2 (robustness hypothesis). As before, we first ran the “two-level main effects” models, testing the main effects of (a) intergroup friendship (H2a) and negative contact and (b) perceived high-quality positive intergroup contact (H2b) and negative contact, along with controls. Our results, shown in Tables 3 and 4, indicated that, in line with predictions, both intergroup friendship and perceived high-quality positive contact were significantly associated with more openness ($b = 0.14$, $SE = 0.06$, $p = .021$ and $b = 0.20$, $SE = 0.10$, $p = .041$, respectively) and ease ($b = 0.15$, $SE = 0.05$, $p = .004$ and $b = 0.30$, $SE = 0.10$, $p = .002$, respectively). Contrary to our expectations however, neither was significantly associated with anxiety ($b = -0.16$, $SE = 0.12$, $p = .203$ and $b = -0.03$, $SE = 0.18$, $p = .852$, respectively). Thus, in examining their main effects, we found support for H2a and H2b for openness and ease, but not for anxiety.

Importantly, we were interested in a more stringent test of the robustness of these effects, namely whether these positive associations might also be overshadowed in the presence of negative contact. To examine this, we added the interaction of (a) intergroup friendship and negative contact to each friendship model and the interaction of (b) perceived high-quality positive contact and negative contact to each quality model. In 5 out of 6 cases, these interactions were non-significant, and adding them to the models did not result in a significant improvement in model fit (for full model results and model fit statistics see Tables S4–S6 (stepwise friendship models), and S7–S9 (stepwise quality models) in online Supplementary materials). In 5 out of 6 cases therefore, the effects of intergroup friendship and perceived high-quality positive contact (albeit not present for anxiety) did not differ depending on the presence of negative contact. However, there was one exception; Adding the interaction between perceived high-quality positive contact and negative contact to the quality model predicting openness resulted in a significant improvement in model fit ($p < .001$), and the interaction was significant ($b = 0.22$, $SE = 0.07$, $p = .001$). Next, we therefore decomposed this interaction. Negative contact was decomposed as before at *no* negative contact and at +1SD. Perceived high-quality positive contact was decomposed at –1SD (3.55), and at the maximum value (+1SD was outside the range of the data). This revealed that among those participants reporting relatively low perceived high-quality positive contact, they were more open to intergroup contact when they did not experience negative contact as opposed to when they experienced some negative contact ($p < .001$). In contrast, among those that reported high perceptions of

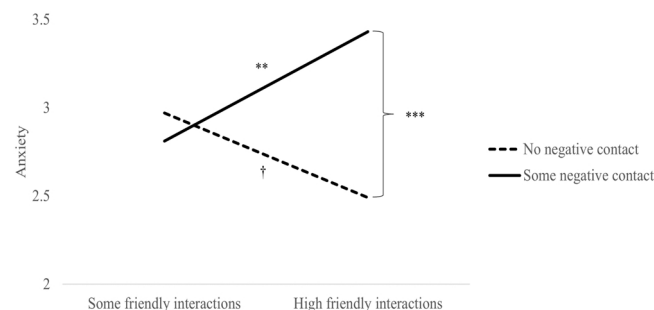


Fig. 3. The Interplay of Friendly Intergroup Interactions and Negative Intergroup Contact Predicting Anxiety.

Table 3
“Two-level Main Effects” Model Results for Friendship Models.

	Openness	Ease	Anxiety
INDIVIDUAL LEVEL			
Intergroup friendship	.14 (0.06)*	0.15 (0.05)**	-0.16 (0.12)
Negative intergroup contact	-0.06 (0.06)	-0.19 (0.07)**	0.12 (0.12)
Control variables			
Age	-0.03 (0.08)	0.07 (0.11)	0.25 (0.20)
Gender	0.23 (0.15)	0.01 (0.13)	0.24 (0.21)
CLASS LEVEL			
Majority % in classroom	0.06 (0.30)	0.07 (0.36)	1.63 (0.95)
EXPLAINED VARIANCE			
R ² individual level	0.09 (0.05)†	0.14 (0.06)*	0.05 (0.05)
R ² class level	0.04 (1.10)	0.01 (0.13)	0.33 (0.27)
MODEL FIT			
Deviance (–2LL)	267.28	257.48	404.44
Akaike (AIC)	283.29	273.48	420.44
Bayesian (BIC)	305.78	295.98	442.54
Sample-Size Adjusted BIC	280.49	270.68	417.25

Note: Entries represent unstandardized coefficients (SE).

† p < .1, *p < .05, **p < .01.

Table 4
“Two-level Main Effects” Model Results for Quality Models.

	Openness	Ease	Anxiety
INDIVIDUAL LEVEL			
Perceived high-quality positive intergroup contact	0.20 (0.10)*	0.30 (0.10)**	-0.03 (0.18)
Negative intergroup contact	-0.07 (0.06)	-0.18 (0.07)*	0.12 (0.12)
Control variables			
Age	-0.05 (0.08)	0.05 (0.09)	0.28 (0.18)
Gender	0.23 (0.15)	-0.01 (0.13)	0.20 (0.22)
CLASS LEVEL			
Majority % in classroom	0.14 (0.27)	0.04 (0.34)	1.53 (0.95)
EXPLAINED VARIANCE			
R ² individual level	0.09 (0.05)†	0.18 (0.07)**	0.03 (0.04)
R ² class level	0.18 (3.35)	0.01 (0.11)	0.33 (0.31)
MODEL FIT			
Deviance (–2LL)	263.97	252.72	408.98
Akaike (AIC)	279.97	268.72	424.98
Bayesian (BIC)	302.33	291.15	447.14
Sample-Size Adjusted BIC	277.04	265.86	421.85

Note: Entries represent unstandardized coefficients (SE).

† p < .1, *p < .05, **p < .01.

high-quality positive contact, openness was equally high regardless of whether they experienced negative contact or not (i.e., the difference in openness between those who reported some negative contact and those who reported none was not significant, $p = .534$, see Fig. 4). Therefore, we found that not only are minority group members’ perceptions of high-quality positive contact associated with more openness in the presence of negative contact, but that it effectively *buffers* the effects of negative contact. This is clearly in line with H2b(i).

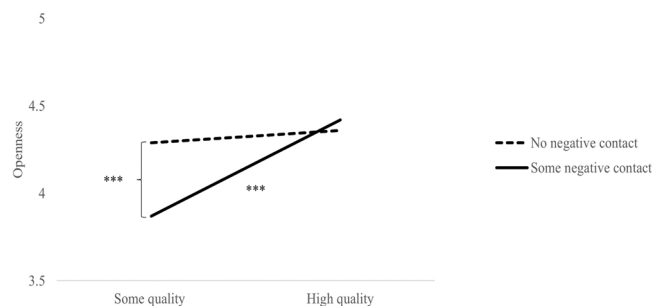


Fig. 4. The Interplay of Perceived High-Quality Positive Intergroup Contact and Negative Intergroup Contact Predicting Openness.

Discussion

At the beginning of this article, we introduced the hypothetical case of Sofía, a young Latina girl who, despite most frequently experiencing friendly and nice interactions with majority peers, *also* experienced unfriendly or hostile treatment, as many young minority group members do. Our first research aim was to test whether negative intergroup contact can overshadow the benefits of *some* positive contact experiences, such as friendly intergroup interactions, for minority group members like Sofía. Although several studies have examined the interplay of positive and negative contact from a majority perspective, our current understanding of how such interplay might affect the orientations of minority group members is more limited. This study adds to the literature by examining the interplay of positive and negative contact in relation to contact orientations (specifically openness to contact and feelings of ease and anxiety in intergroup settings), articulating perspectives from Latino/a minority youth in the U.S. From a social identity approach of minority status in intergroup relations, we conceived of minority group members' positive and negative intergroup contact as sources of social identity valuation and threat, respectively. Thus, negative contact experiences may trigger social identity threat, communicating to minority youth that their identities are devalued in the intergroup context. We reasoned that this identity threat may spill over into friendly intergroup interactions, thus potentially overshadowing the known psychological benefits of those positive contact experiences. We found consistent support for this overshadowing hypothesis (H1); friendly intergroup interactions were *only* associated with more favorable contact orientations among Latino/a youth who reported *no* negative contact. Moreover, among those experiencing negative contact, friendly intergroup interactions were associated with *more* anxiety. Notably, we found evidence of overshadowing despite friendly interactions being frequent and negative contact being rare, suggesting that *very little negative contact casts a long shadow*, even within otherwise positive intergroup contexts.

Looking beyond positive contact in the form of friendly interactions, we asked whether *high-quality* forms of positive contact might promote favorable contact orientations for Latino/a youth even in the presence of negative contact. Accordingly, our second research aim was to test whether minority youths' high-quality positive contact experiences were robustly associated with more favorable contact orientations, regardless of their negative experiences, and whether adverse effects of negative contact might even be buffered by such high-quality positive contact experiences. High-quality positive contact was distinguished from more casual forms of positive contact in two distinct ways: as exemplified first by intergroup friendship, and second by contact that minority group members themselves perceive to be of high-quality (e.g., that they are treated equally during contact). We proposed that both forms of high-quality positive contact would less likely be overshadowed by identity threat, as they more effectively communicate to minority youth that their identity is valued and that they are included on an equal footing. Our findings were in line with this robustness hypothesis (H2) for two out of three dependent measures of contact orientations. Specifically, both intergroup friendship and our composite measure of subjective high-quality positive contact were positively associated with openness to contact and ease among Latino/a youth. Unlike positive contact in the form of friendly interactions, we found no evidence that these benefits would be undermined by negative contact. To the contrary, subjectively perceived high-quality positive contact even buffered threat effects on openness to contact, mitigating the association of negative contact with less openness to contact.

Notably, neither intergroup friendship nor perceived high-quality positive contact experiences significantly reduced anxiety in intergroup contact situations. Hence, we did not replicate our robustness hypothesis for anxiety. Interestingly, in the absence of negative contact, all forms of positive contact, including friendly intergroup interactions, were associated with more openness and ease. Moreover, intergroup friendship and minority group members' own perceptions of high-quality positive contact consistently and robustly predicted more openness and ease, regardless of negative contact. In contrast, neither intergroup friendship nor perceived high-quality positive contact were associated with less anxiety for Latino/a youth in our study. It is possible that anxiety more stubbornly persists in any intergroup contact where identity threat is present. This may be the case despite robust benefits of high-quality positive contact, such that Latino/a youth reported feeling more openness to contact even in the presence of identity threat. Extending Sofía's example, having White friends, or otherwise experiencing high-quality positive contact on an equal footing with White peers, would promote her *openness* to contact despite occasional negative experiences, as she would hope to make new friends and feel valued, like she has before. At the same time, she might still feel *anxious* when engaging in contact with other outgroup members if she is uncertain about what to expect and feels at risk of negative treatment. In other words, feelings of anxiety in intergroup settings may depend most directly on the presence (or absence) of identity threat. Such identity threat would persist along with positive contact experiences whenever minority youth are also experiencing negative contact. Finally, our findings suggest that minority youth may be *especially* anxious when their experiences of negative interactions are mixed in among frequent friendly ones, perhaps as this would increase their uncertainty as to what to expect in intergroup settings.

In addition to extending the scarce literature on minority group perspectives on the interplay of positive and negative intergroup contact, the current study adds to the literature in several other ways. The current study distinguishes between different forms of positive intergroup contact and teases out their differential interplay with negative contact. In doing so, we bridge work on the experience of social identity threat among minority group members (e.g., Steele et al., 2002) with work suggesting minority group members' high-quality positive contact may buffer against threat (e.g., Tropp, 2007; Voci et al., 2015). On the one hand, preliminary evidence from the intergroup contact literature suggests that negative contact may undermine the benefits of some positive contact experiences for minority group members (Árnadóttir et al., 2018; Hayward et al., 2017), while on the other hand intergroup friendship has been consistently associated with positive intergroup outcomes (Tropp, 2007; Voci et al., 2015). Moreover, this research with Latino/a youth was situated in relatively favorable intergroup settings where positive contact is frequent and negative contact is rare. Yet, still, we find evidence that negative contact may overshadow the salutary effects of friendly cross-group interactions, whereas high-quality positive contact is robustly associated with favorable contact orientations even in the presence of negative contact. We conclude that certain benefits of high-quality positive contact for minority youth may be less likely to be undermined by negative

contact, and may even buffer threat effects, enabling minority youth to maintain openness to contact even when experiencing negative contact.

We acknowledge some limitations of the research reported here. First, our cross-sectional design limits us in making causal inferences. Second, the use of previously collected data came with constraints. For one, we acknowledge that whereas our theoretical rationale center around contact with majority group members, our measures of negative contact, friendly interactions and perceived high-quality positive contact do not explicitly refer to contact with the White majority, but rather contact with other races. As such, it is possible that participants may have also thought of contact with other minority groups (e.g., Black peers) when answering those questions. However, as White youth were a clear numerical majority in all schools sampled, with White and Latino/a pupils comprising over 90% of the student population, we can reasonably assume that when Latino/a youth reported their intergroup contact experiences, interactions with White peers would be most likely to come to mind. Nonetheless, future research should examine these processes while distinguishing more clearly between the different racial or ethnic backgrounds of the interaction partners. Furthermore, our measures of friendly interactions and negative contact both consisted of single-items, capturing friendly, prosocial treatment on the one hand and hostile, discriminatory treatment by majority peers on the other hand, which are unlikely to fully capture the multifaceted nature of minority group members' contact experiences (Hayward et al., 2017). Future studies should examine the interplay between positive and negative contact using multi-item measures that better capture the multifaceted nature of minority group members' intergroup experiences. Additionally, although we were able to establish overshadowing with the one single measure of negative contact that was available in the data, future research may extend this first evidence to other forms and measures of negative intergroup experiences, such as plausibly more strongly negative and (even) more threatening experiences of discriminatory treatment or racial harassment. One further constraint pertains to our dependent measures of contact orientations. Because intergroup attitudes on the side of minority group members are generally more positive than majority attitudes (Leach & Livingstone, 2015), arguably the most harmful consequence of negative contact for minority youth regards their future contact orientations. Although we were able to replicate overshadowing across the available dependent measures for openness, ease and anxiety, more fine-grained measures of a wider range of contact appraisals would be required to shed light on subtle nuances, such as our finding that high-quality positive contact may boost openness without taking away anxiety. A final set of limitations relates to our sample. First, the relatively small sample size, together with the low frequency of negative contact reported, warrants caution as power issues may have prevented us from detecting possible weak interactions. Second, our sample was limited to Latino/a minority youth in the United States. Therefore, more research with larger samples of members of diverse minority groups is needed to determine to what extent the interplay observed in the current study applies to different minority groups and across different intergroup contexts, including less favorable ones. Such future research should provide more stringent tests of the robustness hypothesis, determining whether high-quality positive contact is indeed consistently associated with positive outcomes even in more negative intergroup environments, and whether, or when, high-quality positive contact buffers adverse outcomes.

Despite these limitations, the current study provides important insights into the interplay of positive and negative contact for minority group members. Moreover, preliminary evidence on potential boundary conditions for specific forms of positive contact sets the stage for further research. First, our findings suggest that intergroup contact researchers should consider both positive and negative contact experiences, as well as their *interplay*, in future studies, as these experiences jointly inform different outcomes for minority group members. Importantly, we found that negative contact casts a long shadow, overshadowing friendly interactions and thus impacting the contact orientations of minority group members, and by extension their social inclusion in intergroup contexts. This is true even in relatively favorable intergroup contexts where friendly interactions are the rule and negative interactions the exception. As such, the findings provide a possible explanation for why members of minority groups appear to benefit less from intergroup contact than do members of majority groups (Binder et al., 2009; Tropp & Pettigrew, 2005). Second, our findings point to high-quality forms of positive contact, such as intergroup friendship and other positive contact that minority youth perceive to be of high-quality as potential sources identity valuation, which may effectively promote favorable contact orientations, even in the presence of negative contact. However, we do not take this to mean that high-quality positive contact would be a panacea for including minority youth, and thereby for improving intergroup relations. Although it is certainly promising that high-quality positive contact yields robust benefits and that it even potentially buffers threat effects, the downside is that even when negative contact is rare, it can have potentially far reaching consequences. Taken together, these findings imply that, for minority group members to thrive in intergroup contexts, they need not only high-quality positive contact, but ideally also for those contexts to be free from any unfriendly or hostile treatment. As incidental negative contact may occur in even the most positive intergroup contexts, it is key to promote both high-quality positive intergroup contact, over and above more casual friendly interactions, as well as pro-diversity and anti-discrimination norms. Such a strategy should effectively facilitate the inclusion of minority group members in diverse intergroup settings.

Declarations of interest

None.

Acknowledgements

This research was funded by a Faculty Research Healey Endowment Grant (P1FRG000000066) from the University of Massachusetts Amherst (USA) awarded to Linda R. Tropp, and by a FWO (Belgium) research grant (GO81619N) awarded to Karen Phaet.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.ijintrel.2021.12.004](https://doi.org/10.1016/j.ijintrel.2021.12.004).

References

- Árnadóttir, K., Lollot, S., Brown, R., & Hewstone, M. (2018). Positive and negative intergroup contact: interaction not asymmetry. *European Journal of Social Psychology*, 48(6), 784–800. <https://doi.org/10.1002/ejsp.2365>
- Ayón, C., & Philbin, S. P. (2017). “Tú No Eres de Aquí”: Latino children’s experiences of institutional and interpersonal discrimination and microaggressions. *Social Work Research*, 41(1), 19–30. <https://doi.org/10.1093/swr/svw028>
- Barlow, F. K., Hornsey, M. J., Hayward, L. E., Houkamau, C. A., Kang, J., Milojev, P., & Sibley, C. G. (2019). Why do we hold mixed emotions about racial out-groups? A case for affect matching. *Psychological Science*, 30(6), 917–929. <https://doi.org/10.1177/0956797619844269>
- Baysu, G., Phalet, K., & Brown, R. (2014). Relative group size and minority school success: the role of intergroup friendship and discrimination experiences. *British Journal of Social Psychology*, 53(2), 328–349. <https://doi.org/10.1111/bjso.12035>
- Binder, J., Zagefka, H., Brown, R., Funke, F., Kessler, T., Mummendey, A., & Leyens, J. P. (2009). Does contact reduce prejudice or does prejudice reduce contact? A longitudinal test of the Contact Hypothesis among majority and minority groups in three European countries. *Journal of Personality and Social Psychology*, 96(4), 843–856. <https://doi.org/10.1037/a0013470>
- Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doojse (Eds.), *Social Identity: Context, Commitment, Content* (pp. 35–58). Oxford, UK: Blackwell Science.
- Brown, R., & Hewstone, M. (2005). An integrative theory of intergroup contact. *Advances in Experimental Social Psychology*, 37, 255–343. [https://doi.org/10.1016/S0065-2601\(05\)37005-5](https://doi.org/10.1016/S0065-2601(05)37005-5)
- Cohen, J. (1977). *Statistical Power Analysis for the Behavioral Sciences* (revised ed.). New York: Academic Press.
- Costello, M.B. (2016). The Trump effect: the impact of the 2016 presidential election on our nation’s schools. Alabama Appleseed Center for Law and Justice.
- Crocker, J., Major, B., & Steele, C. M. (1998). Social stigma. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of Social Psychology* (fourth ed., pp. 504–553). Boston, MA: McGraw-Hill.
- Davies, K., & Aron, A. (2016). Friendship development and intergroup attitudes: the role of interpersonal and intergroup friendship processes. *Journal of Social Issues*, 72(3), 489–510. <https://doi.org/10.1111/josi.12178>
- Davies, K., Tropp, L. R., Aron, A., Pettigrew, T. F., & Wright, S. C. (2011). Cross-group friendships and intergroup attitudes: a meta-analytic review. *Personality and Social Psychology Review*, 15(4), 332–351. <https://doi.org/10.1177/1088868311411103>
- Derks, B., Van Laar, C., & Ellemers, N. (2007). The beneficial effects of social identity protection on the performance motivation of members of devalued groups. *Social Issues and Policy Review*, 1(1), 217–256. <https://doi.org/10.1111/j.1751-2409.2007.00008.x>
- Devine, P. G., & Vasquez, K. A. (1998). The rocky road to positive intergroup relations. In J. L. Eberhardt, & S. T. Fiske (Eds.), *Confronting Racism: The Problem and the Response* (pp. 234–262). Sage Publications, Inc.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>
- Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of Youth and Adolescence*, 29(6), 679–695. <https://doi.org/10.1023/A:1026455906512>
- Fuochi, G., Voci, A., Veneziani, C. A., Boin, J., Fell, B., & Hewstone, M. (2019). Is negative mass media news always associated with outgroup prejudice? The buffering role of direct contact. *Group Processes and Intergroup Relations*, 23(2), 195–213. <https://doi.org/10.1177/1368430219837347>
- Graham, S., Munniksma, A., & Juvonen, J. (2014). Psychosocial benefits of cross-ethnic friendships in urban middle schools. *Child Development*, 85(2), 469–483. <https://doi.org/10.1111/cdev.12159>
- Greenland, K., Augoustinos, M., Andreouli, E., & Taulke-Johnson, R. (2019). Cross-group friendships, the irony of harmony, and the social construction of “discrimination”. *Ethnic and Racial Studies*, 43, 1169–1188. <https://doi.org/10.1080/01419870.2019.1648845>
- Hayward, L. E., Tropp, L. R., Hornsey, M. J., & Barlow, F. K. (2017). Toward a comprehensive understanding of intergroup contact: descriptions and mediators of positive and negative contact among majority and minority groups. *Personality and Social Psychology Bulletin*, 43(3), 347–364. <https://doi.org/10.1177/0146167216685291>
- Heikamp, T., Phalet, K., Van Laar, C., & Verschuere, K. (2020). To belong or not to belong: Protecting minority engagement in the face of discrimination. *International Journal of Psychology*, 55(5), 779–788. <https://doi.org/10.1002/ijop.12706>
- Hox, J. J., Moerbeek, M., & van de Schoot, R. (2010). *Multilevel Analysis: Techniques and Applications*. New York, NY: Routledge.
- Islam, M. R., & Hewstone, M. (1993). Dimensions of contact as predictors of intergroup anxiety, perceived out-group variability, and out-group attitude: an integrative model. *Personality and Social Psychology Bulletin*, 19(6), 700–710. <https://doi.org/10.1177/0146167293196005>
- Kanas, A., Scheepers, P., & Sterkens, C. (2015). Interreligious contact, perceived group threat, and perceived discrimination: predicting negative attitudes among religious minorities and majorities in Indonesia. *Social Psychology Quarterly*, 78(2), 102–126. <https://doi.org/10.1177/0190272514564790>
- Kanas, A., Scheepers, P., & Sterkens, C. (2017). Positive and negative contact and attitudes towards the religious out-group: testing the contact hypothesis in conflict and non-conflict regions of Indonesia and the Philippines. *Social Science Research*, 63, 95–110. <https://doi.org/10.1016/j.ssresearch.2016.09.019>
- Kende, J., Baysu, G., Van Laar, C., & Phalet, K. (2021). Majority group belonging without minority group distancing? Minority experiences of intergroup contact and inequality. *British Journal of Social Psychology*, 60(1), 121–145. <https://doi.org/10.1111/bjso.12382>
- Kende, J., Phalet, K., Van den Noortgate, W., Kara, A., & Fischer, R. (2018). Equality revisited: a cultural meta-analysis of intergroup contact and prejudice. In *Social Psychological and Personality Science*, 9 pp. 887–895. <https://doi.org/10.1177/1948550617728993>
- Leach, C. W., & Livingstone, A. G. (2015). Contesting the meaning of intergroup disadvantage: towards a psychology of resistance. *Journal of Social Issues*, 71(3), 614–632. <https://doi.org/10.1111/josi.12131>
- Lemmer, G., & Wagner, U. (2015). Can we really reduce ethnic prejudice outside the lab? A meta-analysis of direct and indirect contact interventions. *European Journal of Social Psychology*, 45(2), 152–168. <https://doi.org/10.1002/ejsp.2079>
- Martinez, C. R., DeGarmo, D. S., & Eddy, J. M. (2004). Promoting academic success among Latino youths. *Hispanic Journal of Behavioral Sciences*, 26(2), 128–151. <https://doi.org/10.1177/0739986304264573>
- Mendoza-Denton, R., Downey, G., Purdie, V. J., Davis, A., & Pietrzak, J. (2002). Sensitivity to status-based rejection: implications for African American students’ college experience. *Journal of Personality and Social Psychology*, 83(4), 896–918. <https://doi.org/10.1037/0022-3514.83.4.896>
- Migacheva, K., & Tropp, L. R. (2013). Learning orientation as a predictor of positive intergroup contact. *Group Processes and Intergroup Relations*, 16(4), 426–444. <https://doi.org/10.1177/1368430212455854>
- Miller, C. T., Rothblum, E. D., Felicio, D., & Brand, P. (1995). Compensating for stigma: obese and nonobese women’s reactions to being visible. *Personality and Social Psychology Bulletin*, 21(10), 1093–1106. <https://doi.org/10.1177/01461672952110010>
- Molina, L. E., & Wittig, M. A. (2006). Relative Importance of Contact Conditions in Explaining Prejudice Reduction in a Classroom Context: Separate and Equal? *Journal of Social Issues*, 62(3), 489–509. <https://doi.org/10.1111/j.1540-4560.2006.00470.x>
- Munniksma, A., & Juvonen, J. (2012). Cross-ethnic friendships and sense of social-emotional safety in a multiethnic middle school: an exploratory study. *Merrill-Palmer Quarterly*, 58(4), 489–506. <https://doi.org/10.1353/mpq.2012.0023>

- Muthén, L., & Muthén, B. (2012). Mplus user's guide (version 7.0). Mplus User's Guide (seventh edition), 1–850.
- Page-Gould, E., Mendoza-Denton, R., & Tropp, L. R. (2008). With a little help from my cross-group friend: reducing anxiety in intergroup contexts through cross-group friendship. *Journal of Personality and Social Psychology*, 95(5), 1080–1094. <https://doi.org/10.1037/0022-3514.95.5.1080>
- Paolini, S., Harwood, J., Rubin, M., Husnu, S., Joyce, N., & Hewstone, M. (2014). Positive and extensive intergroup contact in the past buffers against the disproportionate impact of negative contact in the present. *European Journal of Social Psychology*, 44(6), 548–562. <https://doi.org/10.1002/ejsp.2029>
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology*, 49, 65–85. <https://doi.org/10.1146/annurev.psych.49.1.65>
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751–783. <https://doi.org/10.1037/0022-3514.90.5.751>
- Saguy, T., Tropp, L. R., & Hawi, D. (2013). The role of group power in intergroup contact. In G. Hodson, & M. Hewstone (Eds.), *Advances in Intergroup Contact* (pp. 113–132). London, UK: Psychology Press.
- Shelton, J. N., Richeson, J. A., & Salvatore, J. (2005). Expecting to be the target of prejudice: implications for interethnic interactions. *Personality and Social Psychology Bulletin*, 31(9), 1189–1202. <https://doi.org/10.1177/0146167205274894>
- Shelton, J. N., Richeson, J. A., & Vorauer, J. D. (2006). Threatened identities and interethnic interactions. *European Review of Social Psychology*, 17(1), 321–358. <https://doi.org/10.1080/10463280601095240>
- Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: the psychology of stereotype and social identity threat. *Advances in Experimental Social Psychology*, 34, 379–440. [https://doi.org/10.1016/S0065-2601\(02\)80009-0](https://doi.org/10.1016/S0065-2601(02)80009-0)
- Stephan, W. G., Boniecki, K. A., Ybarra, O., Betencourt, A., Ervin, K. S., Jackson, L. A., ... Renfro, C. L. (2002). The role of threats in the racial attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin*, 28(9), 1242–1254. <https://doi.org/10.1177/01461672022812009>
- Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social Issues*, 41(3), 157–175. <https://doi.org/10.1111/j.1540-4560.1985.tb01134.x>
- Swim, J. K., Hyers, L. L., Cohen, L. L., Fitzgerald, D. C., & Bylsma, W. H. (2003). African American college students' experiences with everyday racism: characteristics of and responses to these incidents. *Journal of Black Psychology*, 29(1), 38–67. <https://doi.org/10.1177/0095798402239228>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (sixth ed.). New York: Pearson.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup conflict. In S. Worchel, & W. G. Austen (Eds.), *Psychology of Intergroup Relations* (pp. 7–24). Chicago: Nelson-Hall.
- Tropp, L. R. (2003). The psychological impact of prejudice: implications for intergroup contact. *Group Processes & Intergroup Relations*, 6(2), 131–149. <https://doi.org/10.1177/1368430203006002001>
- Tropp, L. R. (2007). Perceived discrimination and interracial contact: predicting interracial closeness among Black and White Americans. *Social Psychology Quarterly*, 70(1), 70–81. <https://doi.org/10.1177/019027250707000108>
- Tropp, L. R., Mazziotta, A., & Wright, S. C. (2017). Recent developments in intergroup contact research: affective processes, group status, and contact valence. In C. G. Sibley, & F. K. Barlow (Eds.), *The Cambridge Handbook of the Psychology of Prejudice* (pp. 463–480). Cambridge University Press. <https://doi.org/10.1017/9781316161579.020>
- Tropp, L. R., O'Brien, T., González, R., Valdenegro, D., Migacheva, K., de Texanos Pinto, P., ... Cayul, O. (2016). How School Norms, Peer Norms, and Discrimination Predict Interethnic Experiences Among Ethnic Minority and Majority Youth. *Child Development*, 87(5), 1436–1451. <https://doi.org/10.1111/cdev.12608>
- Tropp, L. R., & Pettigrew, T. F. (2005). Relationships between intergroup contact and prejudice among minority and majority groups. *Psychological Science*, 16(12), 951–957. <https://doi.org/10.1111/j.1467-9280.2005.01643.x>
- Tropp, L. R. (2006). Stigma and intergroup contact among members of minority and majority status groups. In S. Levin, & C. van Laar (Eds.), *Stigma and Group Inequality: Social Psychological Perspectives* (pp. 171–191). Mahwah, NJ: Erlbaum.
- Turner, R. N., Hewstone, M., Voci, A., Paolini, S., & Christ, O. (2007). Reducing prejudice via direct and extended cross-group friendship. *European Review of Social Psychology*, 18(1), 212–255. <https://doi.org/10.1080/10463280701680297>
- Voci, A., Hewstone, M., Swart, H., & Veneziani, C. A. (2015). Refining the association between intergroup contact and intergroup forgiveness in Northern Ireland: type of contact, prior conflict experience, and group identification. *Group Processes & Intergroup Relations*, 18(5), 589–608. <https://doi.org/10.1177/1368430215577001>