

ORIGINAL ARTICLE

Testing the association of positive and negative extended contact with intergroup contact intentions in China: The mediating role of intergroup anger, empathy, and happiness

Changcheng Wang¹ | Veronica Margherita Cocco² | Loris Vezzali³ 

¹School of Social and Behavioral Sciences, Nanjing University, Nanjing, China

²Dipartimento di Discipline Umanistiche, Sociali e delle Imprese Culturali, University of Parma, Parma, Italy

³Faculty of Medicine, University of Modena and Reggio Emilia, Reggio Emilia, Italy

Correspondence

Loris Vezzali, University of Modena and Reggio Emilia, viale Allegri 9, 42121 Reggio Emilia, Italy.
Email: loris.vezzali@unimore.it

Funding information

Open Access Funding provided by Università degli Studi di Modena e Reggio Emilia within the CRUI-CARE Agreement.

Abstract

A large corpus of research has investigated extended contact and its psychological mechanisms. However, research taking into account the valence of extended contact, as well as the psychological mechanisms underlying the effects of negative extended contact, is lacking. We examined the associations of Chinese people with rural origins' ($N = 1287$) positive and negative extended contact with contact intentions toward Chinese people with urban origins. Three affective variables (empathy, happiness, and anger) were tested as mediators. Results revealed that the associations of positive and negative extended contact with contact intentions were mediated by empathy, happiness, and anger. This research highlights the importance of examining both positive and negative extended contact as well as affective variables as extended contact mediators.

Although direct, face-to-face contact has been shown to be an extremely effective strategy for prejudice reduction (Pettigrew & Tropp, 2006), its implementation may often be impractical (Paluck & Green, 2009). Researchers have however proposed strategies that capitalize on the effectiveness of indirect contact, where contact is not face-to-face. Extended contact, defined as the knowledge that ingroup members have close relations with outgroup members, represents one of the most successful indirect forms of contact for the improvement of intergroup relations (Vezzali et al., 2014; Zhou et al., 2019). However, while a large amount of research in intergroup contact has acknowledged the role played by negative *direct* contact (Schäfer et al., 2021), scholars have neglected the examination of negative *extended* contact, with few exceptions (e.g., Mazziotta et al., 2015). Given that individuals may be exposed to a wide range of intergroup interactions across the valence spectrum, and that negative contact often has detrimental effects (Barlow et al., 2012), it is important to fill this research gap in order to understand the relative contribution of both positive and negative extended contact. A

further relevant research gap consists in the asymmetry in the consideration of majority and minority groups, and specifically in the lower attention given to minority groups in contact research (Vedder et al., 2017). Finally, although affective factors are an important outcome of extended contact (Birtel et al., 2018), specific intergroup emotions associated with negative extended contact and their role in explaining the effects of extended contact have largely been ignored (with the exception of some evidence concerning intergroup anxiety, see Paolini et al., 2015; Wölfer et al., 2019).

In order to address these research gaps, the present study sought to advance research on extended contact by (i) testing and examining the predictive role of positive and negative extended contact, by considering a minority group in China (Chinese people with rural origins); (ii) investigating the mediating role of intergroup emotions. Notably, instead of relying on outgroup attitudes, we considered intentions to engage in contact with the outgroup as the outcome. To the extent that extended contact can represent a preliminary step to face-to-face contact (Turner et al., 2007), and that intentions are

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2022 The Authors. *Journal of Applied Social Psychology* published by Wiley Periodicals LLC.

more predictive of behavior than attitudes (Godin & Kok, 1996), this study represents an important test for extended contact theory.

1 | EXTENDED CONTACT

Since the formulation of the contact hypothesis (Allport, 1954), scholars have obtained a plethora of empirical evidence showing that direct contact is one of the most effective approaches to lessen prejudice and achieve intergroup harmony in and out of the laboratory (Lemmer & Wagner, 2015; Ülger et al., 2018), a conclusion which applies to different target groups, situations, and cultural contexts (Hodson & Hewstone, 2013; Pettigrew & Tropp, 2006, 2011).

Over the last two decades, researchers have explored alternatives to direct contact with the aim of addressing its critical limitations. For example, when intergroup contact is characterized by high intergroup tension, severe physical separation, or low willingness to engage in cross-group interactions, positive direct contact may not be feasible (Dovidio et al., 2011; Paluck & Green, 2009; Turner et al., 2013). However, these limiting conditions do not apply to extended contact, consisting of knowing about positive cross-group interactions of fellow ingroup members, which can improve outgroup attitudes (Wright et al., 1997). Since extended contact does not require face-to-face interactions, it can even be used in conditions of physical separation, given that only a limited number of ingroup members need to have contact with the outgroup for it to be effective. In addition, and especially in contexts characterized by conflict, extended contact can be applied more easily than direct contact, since individuals do not need to overcome their resistances or anxieties as they do when they *personally* meet outgroup members. So far, an impressive body of research has confirmed the effectiveness of extended contact, making it one of the most effective prejudice-reducing tools, in and out of the laboratory (Brown & Paterson, 2016; Di Bernardo et al., 2017; Turner et al., 2007; Vezzali et al., 2014; Zhou et al., 2019). In other words, extended contact allows the benefits of direct contact, without some of its more relevant limitations.

Among its main gaps, much of previous extended contact research has been conducted from the majority group perspective, whereas less attention has been paid to minority groups. Supporting this latter contention, in the meta-analysis by Zhou et al. (2019), only 29 studies focused on minority groups, whereas 176 tested effects on the majority. Unlike direct contact, whose effects are generally stronger among majority than minority groups (Tropp & Pettigrew, 2005), extended contact effects are similar across majority and minority groups (Vezzali et al., 2014; Zhou et al., 2019). According to Wright et al. (1997), being an external observer of an intergroup interaction, like when ingroup members narrate their intergroup encounters, makes group membership more salient than when individuals are directly involved in the interaction, like in the case of direct contact. Such greater group salience could represent an advantage of extended over direct contact, since it increases the chances of generalization (Brown & Hewstone, 2005). However,

such a generalization advantage may be problematic if it applies to negative extended contact (and Árnadóttir et al., 2018, provided initial evidence that negative rather than positive extended contact is associated with greater group salience).

In the present study, we aimed to test the association between extended contact and contact intentions among minority group members, this way aiming to fill the gap concerning the scarce examination of minority groups. Importantly, and as our primary aim since the examination of negative extended contact has been largely neglected, we also considered the valence of extended contact as an additional relevant variable.

2 | NEGATIVE EXTENDED CONTACT

Extended contact research has predominantly focused on the consequences of positive extended contact, while only a limited number of studies has examined the potential effects of negative extended contact. Yet individuals are likely to know about ingroup members' unpleasant encounters, or unfair and discriminatory treatment from the outgroup. This is especially true for minority members, who are often the target of negative treatment from the majority. Note that the classic definition of extended contact—knowing about close, positive relationships between ingroup and outgroup members (Dovidio et al., 2011; Vezzali et al., 2014; Zhou et al., 2019)—does not contemplate the possibility of negative extended contact. For this reason, Vezzali and Stathi (2021) re-defined extended contact as “knowing about one or more interactions between ingroup and outgroup members” (p. 21). They further differentiated between “positive extended contact”, that is knowing about *positive* relations between ingroup and outgroup, and “negative extended contact”, that is knowing about *negative* relations between ingroup and outgroup.

The possibility of experiencing negative extended contact especially arises in contexts characterized by negative outgroup stereotypes, since when intergroup relations are negative the likelihood of knowing about negative interactions increases. Unlike studies addressing positive extended contact, however, research on negative extended contact is still limited. Some studies have found that, compared to positive extended contact, negative extended contact occurs less frequently in day-to-day intergroup relations among both majority and minority groups (Árnadóttir et al., 2018; Mazziotta et al., 2015; Visintin et al., 2017)¹. Importantly, while knowing about fellow ingroup members' successful cross-group interactions (positive extended contact) improves intergroup relations, being aware of their negative cross-group interactions (negative extended contact) worsens outgroup attitudes among both majority and minority groups (Wang et al., 2019; Wölfer et al., 2017, Study 2).

Evidence regarding the asymmetry between positive and negative extended contact is mixed. Some studies found weak or no evidence for asymmetric effects between positive and negative extended contact (Árnadóttir et al., 2018; Mazziotta et al., 2015; Vedder et al., 2017; Wang et al., 2019; Wölfer et al., 2017, Study 2).

Other studies found evidence of asymmetry, such that effects were stronger for positive than for negative extended contact (Bagci & Gungor, 2019; Husnu et al., 2018, Study 1; Visintin et al., 2017, Study 2), in one case also statistically showing the prevalence of the former type of contact (Wang et al., 2019). It is therefore important to conduct additional studies investigating the relative strength of the two types of extended contact.

3 | EXTENDED CONTACT AND INTERGROUP EMOTIONS

Emotions are a pervasive aspect of positive and negative intergroup interactions. According to intergroup emotions theory, intergroup emotions are strongly dependent upon group membership (Mackie et al., 2000; Mackie & Smith, 2018). Empirical studies have also shown that intergroup emotions affect outgroup attitudes and behavior (e.g., Cottrell & Neuberg, 2005; Cuddy et al., 2007; Talaska et al., 2008). For instance, group-based anger has been shown to be associated to group action (van Zomeren et al., 2008). Results have also consistently demonstrated that intergroup emotions drive contact effects (Pettigrew, 1998; Pettigrew & Tropp, 2008). They are therefore important constructs to consider in contact research (Seger et al., 2016).

While the mediators of the association between positive extended contact and outgroup attitudes have been extensively studied (Turner et al., 2008; Vezzali et al., 2014), little is known about the mediating role of intergroup emotions. Generally, although extended contact has been mainly theorized as a cognitive experience (Paolini et al., 2007), affective factors play a key role in explaining its effects on prejudice (Birtel et al., 2018), also when considering negative extended contact (Vedder et al., 2017, Study 2; Wang et al., 2019).

Given the importance of affective factors in research on extended (Birtel et al., 2018) and more in general on intergroup contact (Brown & Hewstone, 2005), we focused on affective mediators. Unfortunately, research on mediators of negative extended contact is very limited (for exceptions, see Bagci & Gungor, 2019; Vedder et al., 2017; Visintin et al., 2017, Study 2; Wang et al., 2019). In addition, only a small portion of these studies found evidence for mediation of negative extended contact by affective factors (Vedder et al., 2017; Wang et al., 2019). The scarcity of evidence also refers more generally to the association between extended and direct contact (or contact intentions, which is the outcome variable we used in the present study), which revealed mediation effects by intergroup anxiety (Mazziotta et al., 2015; Wölfer et al., 2019, Study 4), ingroup and outgroup norms (Mazziotta et al., 2015; Vezzali et al., 2015), self-efficacy (Mazziotta et al., 2015), and behavioral intentions (Vezzali et al., 2015).

In our study, we focused on empathy, anger, and happiness, which are three of the most common intergroup emotions characterizing intergroup contact (Broudy et al., 2007; Swim et al., 2003; Stephan & Finlay, 1999). This choice is also motivated by findings based on intergroup emotions theory, showing that negative

emotions like anger, but also positive emotions, motivate approach behavior (Mackie & Smith, 2018). The inclusion of both positive and negative emotions allows us to test their complementary role in predicting approach tendencies, and specifically intentions to engage in future contact.

There is large evidence that intergroup empathy can reduce prejudice across a wide range of target groups and contexts (e.g., Dovidio et al., 2004; Galinsky et al., 2011; Hewstone et al., 2006), and also that it mediates the effects of positive extended contact (Antonio et al., 2017; Vezzali et al., 2017; Visintin et al., 2016). However, we are also aware of one study where intergroup empathy did not mediate the effects of negative extended contact (Visintin et al., 2017). There is therefore a need for research investigating whether this important construct mediates the effect of both positive and negative extended contact.

Anger and happiness are two further emotional responses that can occur during intergroup contact (Broudy et al., 2007; Hayward et al., 2017; Kessler & Hollbach, 2005; Pennekamp et al., 2007). Research has shown that anger has negative effects on outgroup attitudes (Batson et al., 2007; Thomas et al., 2009; Waksalak et al., 2007), whereas happiness has positive effects (Kauff et al., 2017; Kessler & Hollbach, 2005). Moreover, it has been found that, while positive contact can reduce anger and increase happiness, negative contact enhances anger and decreases happiness (Hayward et al., 2017; Kauff et al., 2017; Selvanathan et al., 2018).

These three emotions may be especially relevant in intergroup contexts characterized by distrust. In such contexts, reducing negative emotions (such as anger) and fostering emotions associated with positive attitudes (empathy) can be a first step toward the improvement of intergroup relations. In addition, finding that extended contact effects are exerted via changes in happiness, representing a desired state, would provide optimistic conclusions on the role of extended and direct contact in supporting the general well-being of individuals. We are not aware of studies testing these three variables as mediators of extended contact.

4 | THE PRESENT RESEARCH

The present research aimed to investigate both positive and negative extended contact associations with contact intentions among minority members. In response to scarce evidence on the affective mechanisms driving the effects of extended contact, we investigated empathy, anger, and happiness as potential mediators.

Our hypothesis was tested by considering the relationship between individuals with rural and with urban origins in China. The group of individuals with urban origins refers to those born in the city, while the group of individuals with rural origins refers to those who move from rural areas where they are born to the city for reasons related to work or education. In the urbanization process, they sensibly contributed to the development of cities. However, they have generally experienced discrimination and social exclusion from the group with urban origins (Chen & Bian, 2014; Wang & Liu, 2015).

Compared with people with urban origins, they attract less intergroup trust (Wang et al., 2009). Not surprisingly, social distance between individuals with urban or rural origins has therefore increased (Lei, 2012). The status of the relationships between members of the group with urban or rural origins is a problematic issue faced by developed cities and has been a critical aspect of city development and social governance.

Research has shown that contact between people with urban and with rural origins helps reduce the social distance between them and enhances their willingness to interact with each other (Wang & Mao, 2016; Xing & Lu, 2015). Hence, social identities attached to people with urban or rural origins are psychologically meaningful and relevant to contact interventions. These findings also suggest that the willingness of people with rural origins to pursue contact with people from the cities can be reciprocated in real life.

Unfortunately, due to the distance of living space between people with urban origins and people with rural origins (Pan & He, 2017), and the cultural differences between the two groups (Wang & Mao, 2016), conducting large-scale interventions based on direct contact is unrealistic in addition to be unpractical. Extended contact can instead represent a viable strategy, since it is less dependent on face-to-face intergroup interactions (Vezzali et al., 2014). However, also in light of the rather negative relations between the two groups, negative extended contact may also occur and its additive effects should be investigated, something that we do in the present study. Therefore the examination of negative (in addition to positive) extended contact is especially important in such context when considering the minority group, and where understanding how to improve intergroup relations is helpful for the creation of a better and harmonious society.

As an outcome, we focused on contact intentions, since intentions represent the most proximal predictor of behavior (Godin & Kok, 1996) and ideally the main outcome of extended contact (Turner et al., 2007).

With respect to mediators, given the status of relations between people with urban and rural origins, we decided to include emotions of different valence that might cover both positive and negative affect. The choice of testing empathy, happiness, and anger is rooted in contact research, which showed that they are relevant to the contact experience, and on intergroup emotions theory, which shows that they can motivate approach behavior, which represents our outcome (Mackie & Smith, 2018). Empathy was chosen because being empathic is a strong predictor of positive intergroup relations, and is especially relevant in a context characterized by distrust, as the one we consider. Happiness represents a desired state and an index of success of a positive relation with the outgroup: finding that extended contact is associated with such outcome in rural-urban intergroup relations would show the relevance of this contact form for determining the course of the intergroup relation as well as the general well-being of individuals. Anger represents an ingredient of problematic intergroup relations and a predictor of action: discrimination

experiences faced by people with rural origins may easily have activated anger, therefore we explore whether the associations of extended contact with contact intentions can depend at least in part on this variable.

Wang et al. (2019) considered the relation between Han (majority) and Uyghur (minority) people in China. Specifically, they focused on a sample of university students from the Uyghur population. Results revealed that positive extended contact was indirectly associated with more positive outgroup attitudes and contact intentions via classic mediators of extended contact, that is more positive ingroup and outgroup norms and reduced intergroup anxiety (Vezzali et al., 2014). In contrast, lower ingroup and outgroup norms and higher intergroup anxiety mediated the associations of negative extended contact with outcome variables. Finally, the associations with the outcomes were stronger for positive than for negative extended contact.

Our study moves from findings by Wang et al.'s (2019), allowing comparability, but it also sensibly departs from it, allowing the generalization and extension of its conclusions. First, we examined an adult sample from a minority group of a different and relatively uninvestigated intergroup context: replication of findings would demonstrate the relevance of extended contact across minority samples. In addition, after Wang et al. (2019) demonstrated that extended contact in China and other areas is characterized by similar mechanisms, in this study we test a different set of mediators, drawing on the affective nature of extended contact (Birtel et al., 2018). These emotions have been neglected in extended contact research, although they can be relevant to approach behavior: our findings can help to better understand whether the path from extended contact to intentions to act is allowed by specific affective factors.

Hypotheses were the following

1. the associations of positive extended contact with more positive contact intentions should be mediated by greater empathy and happiness, and by lower anger;
2. negative extended contact should be indirectly associated with lower contact intentions via reduced empathy and happiness, and greater anger.

We also test the strength of the associations of positive and negative extended contact with the other variables. Specifically,

- we test whether there is an asymmetry in the associations of positive and negative extended contact with contact intentions;
- we compare the strength of indirect mechanisms between the two forms of contact.

Given mixed evidence on the relative strength of positive and negative extended contact, and scarce research on mediators, these two tests are conducted at an exploratory level.

To determine the sample size, given that our study aims to build on and extend findings by Wang et al. (2019), we tried to obtain a sample at least as large as that used in their study.

5 | METHOD

5.1 | Participants and procedure

Participants were university students from Eastern China. After excluding participants with excessive missing data (>15%), which led to exclude 13 participants, we obtained a final sample of 1287 (683 females) participants between 18 and 29 years ($M = 22.41$, $SD = 2.55$). Research assistants distributed self-report questionnaires in urban areas to individuals with rural origins that moved to the city for work and educational related reasons, and who were identified through personal acquaintances, as well as via ads at university and university websites; all participants declared in the questionnaire that they were born in rural areas and that they identified with individuals with rural (vs. urban) origins. Participants were informed that the aim of the study was to investigate social relationships between individuals with urban and with rural origins, and were briefed about ethics policies regarding anonymity, privacy, and data protection.

All participants voluntarily and anonymously took part in the study and were informed that they could stop their participation at any time. They were informed that they would receive 3 RMB (Ren Min Bi, which is the currency of China) after completing the study.

5.2 | Measures

5.2.1 | Extended contact

We used the scale adapted from Wang et al. (2019), consisting of five items assessing positive extended contact and four items assessing negative extended contact. Examples of items are: "My friends with rural origins told me that they got along well with people with urban origins" (positive extended contact); "My friends with rural origins told me that they were once cheated by people with urban origins" (negative extended contact). The response scale ranged from 1 (*never*) to 5 (*usually*). Cronbach α s were 0.94 and 0.95 for positive and negative extended contact, respectively. We combined items for the two scales, with higher scores denoting more positive and negative extended contact, respectively.

5.2.2 | Empathy

We used three 5-point Likert scale items (1 = *strongly disagree*, 5 = *strongly agree*) adapted from Hayward et al. (2017): "I can see things from the point of view of people with urban origins"; "I try to understand people with urban origins by imagining their feelings, suffering, thoughts"; "It would be easy for me to put myself in the shoes of people with urban origins." Since reliability was excellent ($\alpha = 0.94$), we averaged items. Higher scores reflect more empathy toward the outgroup.

5.2.3 | Happiness

We used four items adapted from Kauff et al. (2017): "When I think of people with urban origins I feel" "happy," "satisfied," "pleasant." The response scale ranged from 1 (*never*) to 5 (*very often*). Higher scores indicate more happiness when thinking about outgroup members ($\alpha = 0.77$).

5.2.4 | Anger

Four items adapted from Mackie et al. (2000) were used, all on a 5-point scale ranging from 1 (*not at all*) to 5 (*very much*): "When I think of people with urban origins I feel" "angry," "irritated," "incensed," "furious." Higher scores denote more anger toward the outgroup ($\alpha = 0.95$).

5.2.5 | Contact intentions

Contact intentions were measured using an adapted version of Ratcliff et al. (1999) behavioral intentions measure. Participants were asked to respond to 8 items on a 9-point scale (1 = *not at all likely*, 9 = *highly likely*), e.g., "How likely do you think it is that you would strike up a conversation with people with urban origins?". Higher scores reflect stronger contact intentions ($\alpha = 0.88$).

A confirmatory factor analysis with latent variables, using measurement items as the indicators, was conducted with Mplus 7.40 (Muthén & Muthén, 2017) to test whether our variables are empirically distinct. Result indicated that the model fit was satisfactory, $\chi^2/df = 3.93$, CFI = 0.979, TLI = 0.975, RMSEA = 0.048. Moreover, correlations between latent factors were different from 1, therefore the measured constructs were empirically distinct.

6 | RESULTS

Means, standard deviations, and zero-order correlations are reported in Table 1. As can be seen, positive and negative extended contact were correlated with the expected mediators: positive extended contact was positively associated with empathy and happiness, and negatively with anger; associations of opposite valence emerged for negative contact. In addition, positive and negative extended contact were associated positively and negatively, respectively, with contact intentions. Finally, mediators were associated with the outcome variable in the expected direction: higher levels of empathy and happiness were associated with greater contact intentions; the association between anger and contact intentions was negative.

To test our hypotheses, we conducted regression with Mplus (Muthén & Muthén, 2017). We first ran a fully-saturated model using positive and negative extended contact as the predictors and contact intentions as the outcome, in order to compare the strength

TABLE 1 Means, standard deviations, and zero-order correlations among variables ($N = 1287$)

Variable	1	2	3	4	5	6
1. Contact intentions	1.00					
2. Empathy	0.79***	1.00				
3. Happiness	0.58***	0.54***	1.00			
4. Anger	-0.31***	-0.24***	-0.36***	1.00		
5. Positive extended contact	0.77***	0.74***	0.63***	-0.24***	1.00	
6. Negative extended contact	-0.27***	-0.27***	-0.31***	0.73***	-0.25***	1.00
M	5.31	3.03	3.18	2.95	3.21	3.17
SD	2.35	1.28	0.91	1.25	1.22	1.31

Note: The response scale ranged from 1 to 9 for contact intentions, and from 1 to 5 for the other variables.

*** $p < .001$.

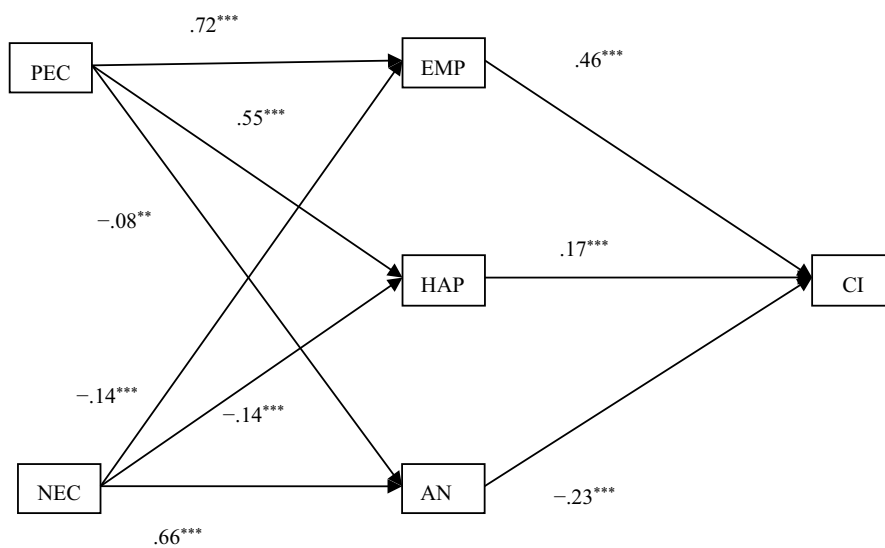


FIGURE 1 Mediation model. ANE, anger; CI, contact intentions; EMP, empathy; HAP, happiness; NEC, negative extended contact; PEC, positive extended contact. Standardized regression coefficients are reported. Correlations: positive extended contact-negative extended contact, $r = -0.21$, $p < .001$; empathy-happiness, $r = 0.09$, $p < .01$; empathy-anger, $r = 0.07$, $p < .05$; happiness-anger, $r = -0.28$, $p < .001$. ** $p < .01$. *** $p < .001$

of associations of positive and negative extended. In this model, we compared the total effects of positive and negative extended contact on contact intentions. Results revealed that, compared with negative extended contact ($B = -0.07$, $SE = 0.03$, $p < .001$), positive extended contact ($B = 0.72$, $SE = 0.02$, $p < .001$) was more strongly associated with contact intentions ($B = 0.65$, $SE = 0.04$, $p < .001$).

In a fully-saturated second model, we included empathy, happiness, and anger as mediators. The direct paths between positive and negative extended contact, the correlations between predictors as well as the correlations among mediators were estimated. As can be seen in Figure 1, the associations of both predictors with the three mediators were significant: positive extended contact was associated with greater empathy and happiness, and with lower anger. In contrast, negative extended contact was associated with lower empathy and happiness, and with greater anger. In turn, empathy and happiness were associated with greater contact intentions, while a negative association emerged between anger and contact intentions.

Indirect effects have been assessed with bootstrapping procedures. Results, outlined in Table 2, revealed mediation effects for the three hypothesized mediators. In line with H1, positive extended

contact was indirectly associated with greater contact intentions via higher empathy and happiness, and via lower anger. In contrast, consistent with H2, the indirect association between negative extended contact and lower contact intentions was mediated by lower empathy and happiness, and by greater anger. These findings provide full support for our hypotheses.

We compared the indirect effects of positive and negative extended contact on contact intentions. Findings showed that the association between positive extended contact and contact intentions through empathy ($B = 0.27$, $SE = 0.03$, $p < .001$) and happiness ($B = 0.07$, $SE = 0.01$, $p < .001$) were stronger than the corresponding indirect effects of negative extended contact. Conversely, mediation by anger was stronger for negative than for positive extended contact ($B = -0.14$, $SE = 0.02$, $p < .001$).

A post-hoc power analysis was conducted in order to confirm the pertinence of the sample size. Using the Monte Carlo method, we assessed observed power by replicating the hypothesized model (10,000 resamples), thus employing the coefficients emerged from the path analysis. Results showed that the sample size was sufficient to achieve a power of at least 80% for the predicted associations.

TABLE 2 Point estimates and confidence intervals for indirect effects ($N = 1287$)

	Contact intention	
	<i>b</i> (SE)	95% CIs
<i>Positive extended contact</i>		
M = Empathy	0.33 (0.03)	[0.28, 0.39]
M = Happiness	0.09 (0.02)	[0.06, 0.13]
M = Anger	0.02 (0.01)	[0.007, 0.03]
<i>Negative extended contact</i>		
M = Empathy	-0.07 (0.01)	[-0.09, -0.04]
M = Happiness	-0.02 (0.01)	[-0.04, -0.01]
M = Anger	-0.15 (0.02)	[-0.19, -0.11]

Note: All bias-corrected percentile bootstrap confidence intervals are reported at the 95% confidence level, and all results are based on 5000 bootstrapped samples.

Abbreviations: CIs, confidence intervals; M, mediator.

7 | DISCUSSION

We investigated the mediating role of empathy, happiness, and anger in the relationship of both positive and negative extended contact with contact intentions among minority group members. Importantly, we investigated a cultural context generally ignored by research on extended contact, therefore providing ecological validity for the role of extended contact in shaping intergroup relations. Below we discuss our findings, highlighting their contribution to the existent literature on extended contact, and their theoretical and practical implications. Finally, we outline limitations and propose future research directions.

In line with our hypothesis, empathy, happiness, and anger mediated the effects of both positive and negative extended contact. Previous studies have shown that positive extended contact can affect outgroup attitudes through empathy (Vezzali et al., 2017; Visintin et al., 2017). Our study extends this evidence, by showing that empathy mediated the effect of both positive and negative extended contact. Moreover, positive and negative extended contact were also indirectly associated with contact intentions through greater happiness and lower anger, providing the first evidence for the role of these variables in mediating extended contact effects. We believe these emotions are particularly relevant since, in addition to being related to outgroup attitudes, they are directly implied in the process of integration (empathy, anger) and relate to the importance of feeling positively when interacting with the outgroup (happiness). It is therefore worth noting that mediation effects were found by using contact intentions as the outcome, as they allow a closer inspection of the processes that bring to greater desire for integration.

These findings are consistent with intergroup emotions theory (Mackie & Smith, 2018). When individuals with rural origins identify with the ingroup, group membership becomes a relevant part of their selves, and they are likely to understand and interpret events from the ingroup perspective, this way triggering specific positive or negative intergroup emotions. Different intergroup emotions could

stimulate different outgroup attitudes and behaviors (Kenworthy et al., 2016; Zhang et al., 2009). Our study shows that extended contact is likely to have produced group salience, activating specific emotions (anger, empathy, happiness) as a function of its valence, which in turn contributes to determine the intentions to have intergroup contact. Future studies can contribute to determine the specific positive and negative emotions activated by extended contact of differential valence.

Previous research provided mixed evidence regarding the relative strength of positive and negative extended contact. Our results are consistent with research showing larger effects for positive than for negative extended contact (Bagci & Gungor, 2019; Husnu et al., 2016, Study 1; Visintin et al., 2017, Study 2), also when referred to minority group members (Wang et al., 2019). The present study also extends previous findings, by exploring the relative strength of indirect effects for the first time. We found that indirect effects stemming from positive extended contact were larger than corresponding effects for negative extended contact for empathy and happiness, and lower for anger. It is possible that positive extended contact allowed a greater focus on positive aspects of the intergroup relations, being therefore associated to a greater extent with positively valenced emotions. In contrast, negative extended contact may have fuelled emotions related to conflict. Note, however, that both types of contact revealed indirect effects via the three emotions, indicating that both operate via a positive and a negative focus (for a study investigating the relative association of positive and negative extended contact with positive and negative focus, see Huang et al., 2020).

A further relevant aspect concerns the interplay between social norms and intergroup emotions. Social norms are a key driver of outgroup attitudes and an established mechanism underlying the effects of extended contact (White et al., 2021). According to Mackie and Smith (2018), intergroup emotions depend on group membership, but also on the normative context associated with intergroup relations. Therefore, changes in social norms can influence how emotions are appraised and their consequences. Future studies should consider both social norms and intergroup emotions and investigate their dynamic interplay in allowing extended contact effects.

We decided to focus on the minority group to replicate and extend findings by Wang et al. (2019), also considering that (direct and indirect) contact research has mostly focused on majority groups (Vezzali & Stathi, 2021; Zhou et al., 2019). Specifically, replicating basic findings by Wang et al. by considering a different intergroup relation allows to generalize findings across contexts. In other words, the study shows the robustness of the effects of extended contact across minority samples and its role in predicting willingness to meet majority group members. Moreover, it sheds light on the multiple processes underlying extended contact effects, by extending the range of mediators underlying the effects of minority members' extended contact.

However, it is worth noting that, to the extent that individuals with rural origins represent the discriminated group, their contact intentions may not be reciprocated. This is an issue shared with studies investigating asymmetrical relations where the minority

group is discriminated by the majority group. On one side, minority members pay special attention to signs of discrimination and are more resistant to prejudice reduction attempts (Tropp & Pettigrew, 2005). On the other side, majority members display disinterest in meeting outgroup members at least in part because they underestimate minority's interest in contact (Shelton & Richeson, 2005). However, majority members also become interested in contact when they expect positive outcomes from minority group members (Vezzali, 2017). Therefore, we believe that fostering minority's interest in contact is a priority, as there are good chances of reciprocation.

Conceptually similar explanations can be made with respect to our choice of mediators. In the context examined, being rejected by the majority can lead minority to segregate (or to resegregate, that is, minority individuals can also segregate in mixed contexts characterized by high contact opportunities; Al Ramiah, Schmid, Hewstone, & Floe, 2015). In other words, being discriminated against can lead minorities to raise a barrier against the minority group, resulting in a self-fulfilling prophecy that the minority group does not want to mix with the majority group. It is therefore important to investigate whether extended contact is associated with psychological mechanisms that run against raising intergroup barriers: empathizing with the outgroup (understanding majority's feelings is a first step toward intergroup acceptance), lowering anger (which if raised can justify the intentions to segregate), increasing happiness (being happy can for instance allow to approach the majority with positive feelings, reducing the risk of being rejected). Although our research is cross-sectional, aims and findings can therefore be interpreted taking into account the dynamic nature of contact and more generally intergroup relations, consisting of feelings and actions that are dynamically negotiated between groups (Abrams & Eller, 2017). Note that several other mediators may be relevant to understanding how extended contact operates among minority group members, like feelings of rejection, intergroup anxiety, self-efficacy in contact. Future research should explore these mediators, and also consider them comparatively to identify the most relevant(s).

Our findings have important practical implications, as they show that extended contact can be used to improve relations among relatively under-studied groups in China, that is individuals with rural and urban origins. It should be noted that we assessed naturally occurring extended contact, rather than testing an extended contact intervention. Departing from direct contact, translating extended contact into practical strategies is less intuitive, since extended contact informs that contacts in one's wider social networks are relevant to prejudice reduction, rather than suggesting a way to use it practically (cf. Vezzali & Stathi, 2021, Chapter 2). However, there are examples of interventions based on extended contact, where group members have been informed about their ingroup members' outgroup friendships (Gómez et al., 2018; Vezzali et al., 2015). Our study provides evidence that natural occurring extended contact can indeed be effective in promoting positive intergroup relations. This should be considered as a starting point for testing interventions based on extended contact. Future studies should directly test applied interventions, for

instance relying on the power of media of informing about positive intergroup relations experiences.

7.1 | Limitations and future directions

We acknowledge some limitations. First, this is a cross-sectional study, which implies the usual shortcoming of being unable to establish causal links between the analyzed variables. Future studies should incorporate longitudinal or experimental studies to get a more accurate picture of the causal influences between the variables involved. Second, extended contact was measured by relying on participants' self-reports. While self-report is a valid, efficient means of data collection, it is nevertheless influenced by errors, such as memory bias. Future studies could use social network analysis in order to assess extended contact more objectively (Wölfer et al., 2017).

A further limitation is that we used a university sample. Note that although university students may benefit of greater contact opportunities compared to the general population, re-segregation is a common phenomenon also in universities (Alexander & Tredoux, 2010), making them sometimes not very dissimilar from more naturalistic contexts. However, since university may represent a less conflictual context compared to other contexts, possibly allowing more positive intergroup relations, further studies with more naturalistic samples are needed in order to increase generalization of the present findings. A final limitation is that we did not statistically control for direct contact. Although this is consistent with some of the previous studies (Mazziotta et al., 2015), it represents a major drawback, which leads to interpret our findings with caution.

Although previous studies have reached a consensus that negative contact negatively impacts intergroup relations, some scholars have proposed and found that negative contact can also have a positive effect, like fostering greater collective action intentions (Barlow et al., 2012; Reimer et al., 2017). Therefore, the examination of collective action as an additional relevant outcome should be considered in future research. In addition, it would be important to test additional mechanisms driving extended contact, and to replicate findings in less conflictual contexts.

In conclusion, we believe this study points to the importance of considering extended contact as a viable strategy to foster the desire to come into contact and reciprocal acceptance among majority and minority groups that we believe are important outcomes for scholars investigating intergroup relations.

ACKNOWLEDGMENT

Open Access funding enabled and organized by Projekt DEAL. Blended DEAL: CARE.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Loris Vezzali  <https://orcid.org/0000-0001-7536-9994>

ENDNOTE

¹ Husnu et al. (2018) found a prevalence of negative over positive extended contact. Note however that extended contact was operationalized as family storytelling in a postconflict setting (Cyprus). In such a context, it is possible that negative storytelling outnumbered positive storytelling as a consequence of the conflict that occurred.

REFERENCES

- Abrams, D., & Eller, A. (2017). A temporally integrated model of intergroup contact and threat (TIMICAT). In L. Vezzali & S. Stathi (Eds.), *Intergroup contact theory: Recent developments and future directions* (pp. 72–91). Routledge.
- Al Ramiah, A., Schmid, K., Hewstone, M., & Floe, C. (2015). Why are all the White (Asian) kids sitting together in the cafeteria? Resegregation and the role of intergroup attributions and norms. *British Journal of Social Psychology, 54*, 100–124. <https://doi.org/10.1111/bjso.12064>
- Alexander, L., & Tredoux, C. (2010). The spaces between us: A spatial analysis of informal segregation at a South African university. *Journal of Social Issues, 66*, 367–386. <https://doi.org/10.1111/j.1540-4560.2010.01650.x>
- Allport, G. (1954). *The nature of prejudice*. Addison-Wesley.
- Antonio, R., Guerra, R., & Moleiro, C. (2017). Having friends with gay friends? The role of extended contact, empathy and threat on assertive bystanders behavioral intentions. *Psicologia: Revista da Associação Portuguesa Psicologia, 31*, 15–23.
- Árnadóttir, K., Lolliot, S., Brown, R., & Hewstone, M. (2018). Positive and negative intergroup contact: Interaction not asymmetry. *European Journal of Social Psychology, 48*, 784–800. <https://doi.org/10.1002/ejsp.2365>
- Bagci, S. C., & Gungor, H. (2019). Associations between perceived positive and negative parental contact and adolescents' intergroup contact experiences. *International Journal of Intercultural Relations, 69*, 76–86. <https://doi.org/10.1016/j.ijintrel.2019.01.002>
- Barlow, F. K., Paolini, S., Pederson, A., Hornsey, M. J., Radke, H. R. M., Harwood, J., Rubin, M., & Sibley, C. G. (2012). The contact caveat: Negative contact predicts increased prejudice more than positive contact predicts reduced prejudice. *Personality and Social Psychology Bulletin, 38*, 1629–1643. <https://doi.org/10.1177/0146167212457953>
- Batson, C. D., Kennedy, C. L., Nord, L. A., Stocks, E. L., Fleming, D. A., Marzette, C. M., Lishner, D. A., Hayes, R. E., Kolchinsky, L. M., & Zenger, T. (2007). Anger at unfairness: Is it moral outrage? *European Journal of Social Psychology, 37*, 1272–1285. <https://doi.org/10.1002/ejsp.434>
- Birtel, M. D., Vezzali, L., & Stathi, S. (2018). Extended contact and affective factors: A review and suggestions for future research. *Testing, Psychometrics, Methodology in Applied Psychology, 25*, 213–238. <https://doi.org/10.4473/TPM25.2.4>
- Broudy, R., Brondolo, E., Coakley, V., Brady, N., Cassells, A., Tobin, J. N., & Sweene, M. (2007). Perceived ethnic discrimination in relation to daily moods and negative social interactions. *Journal of Behavioral Medicine, 30*, 31–43. <https://doi.org/10.1007/s10865-006-9081-4>
- 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)
- Brown, R., & Paterson, J. (2016). Indirect contact and prejudice reduction: Limits and possibilities. *Current Opinions in Psychology, 11*, 20–24. <https://doi.org/10.1016/j.copsyc.2016.03.005>
- Cottrell, C. A., & Neuberg, S. L. (2005). Different emotional reactions to different groups: A sociofunctional threat-based approach to “prejudice”. *Journal of Personality and Social Psychology, 88*, 770–789. <https://doi.org/10.1037/0022-3514.88.5.770>
- Cuddy, A. J., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology, 92*, 631–648. <https://doi.org/10.1037/0022-3514.92.4.631>
- Chen, C., & Bian, Y. J. (2014). Social capital and the reproduction of inequality: The case of income differential between rural migrants and urban workers. *Chinese Journal of Sociology, 34*, 67–90. <https://doi.org/10.15992/j.cnki.31-1123/c.2014.04.008>
- Di Bernardo, G. A., Vezzali, L., Stathi, S., Cadamuro, A., & Cortesi, L. (2017). Vicarious, extended and imagined intergroup contact: A review of interventions based on indirect contact strategies applied in educational settings. *Testing, Psychometrics, Methodology in Applied Psychology, 24*, 3–21. <https://doi.org/10.4473/TPM24.1.1>
- Dovidio, J. F., Eller, A., & Hewstone, M. (2011). Improving intergroup relations through direct, extended and other forms of indirect contact. *Group Processes and Intergroup Relations, 14*, 147–160. <https://doi.org/10.1177/1368430210390555>
- Dovidio, J. F., ten Vergert, M., Stewart, T. L., Gaertner, S. L., Johnson, J. D., Esses, V. M., Riek, B. M., & Pearson, A. R. (2004). Perspective and prejudice: Antecedents and mediating mechanisms. *Personality and Social Psychology Bulletin, 30*, 1537–1549. <https://doi.org/10.1177/0146167204271177>
- Galinsky, A. D., Gilin, D., & Maddux, W. W. (2011). Using both your head and your heart: The role of perspective taking and empathy in resolving social conflict. In J. P. Forgas, A. W. Kruglanski, & K. D. Williams (Eds.), *The psychology of social conflict and aggression* (pp. 103–118). Taylor and Francis.
- Godin, G., & Kok, G. (1996). The theory of planned behaviour: A review of its applications to health related behaviors. *American Journal of Health Promotion, 11*, 87–98. <https://doi.org/10.4278/0890-1171-11.2.87>
- Gómez, A., Tropp, L. R., Vázquez, A., Voci, A., & Hewstone, M. (2018). Depersonalized extended contact and injunctive norms about cross-group friendship impact intergroup orientations. *Journal of Experimental Social Psychology, 76*, 356–370. <https://doi.org/10.1016/j.jesp.2018.02.010>
- 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*, 347–364. <https://doi.org/10.1177/0146167216685291>
- Hewstone, M., Cairns, E., Voci, A., Hamberger, J., & Niens, U. (2006). Intergroup contact, forgiveness, and experience of “the troubles” in Northern Ireland. *Journal of Social Issues, 62*, 99–120. <https://doi.org/10.1111/j.1540-4560.2006.00441.x>
- Hodson, G., & Hewstone, M. (Eds.). (2013). *Advances in intergroup contact*. Psychology press.
- Husnu, S., Mertan, B., & Cicek, O. (2018). Reducing Turkish Cypriot children's prejudice toward Greek Cypriots: Vicarious and extended intergroup contact through storytelling. *Group Processes and Intergroup Relations, 21*, 178–192. <https://doi.org/10.1177/1368430216656469>
- Huang, F., Shi, K., Zhou, M., Stathi, S., & Vezzali, L. (2020). Can interethnic contact between majority (Han) and minority (Uyghur) people in China influence sense of Chinese national community? The role of positive and negative direct, extended and vicarious intergroup contact. *International Journal of Intercultural Relations, 77*, 125–139. <https://doi.org/10.1016/j.ijintrel.2020.05.008>
- Kauff, M., Asbrock, F., Wagner, U., Pettigrew, T. F., Hewstone, M., Schäfer, S. J., & Christ, O. (2017). (Bad) feelings about meeting them? Episodic and chronic intergroup emotions associated with positive and negative intergroup contact as predictors of intergroup

- behavior. *Frontiers in Psychology*, 8, 1–11. <https://doi.org/10.3389/fpsyg.2017.01449>
- Kenworthy, J. B., Voci, A., Ramiah, A. A., Tausch, N., Hughes, J., & Hewstone, M. (2016). Building trust in a postconflict society: An integrative model of cross-group friendship and intergroup emotions. *Journal of Conflict Resolution*, 60, 1041–1070. <https://doi.org/10.1177/0022002714564427>
- Kessler, T., & Hollbach, S. (2005). Group-based emotions as determinants of ingroup identification. *Journal of Experimental Social Psychology*, 41, 677–685. <https://doi.org/10.1016/j.jesp.2005.01.001>
- Lei, K. C. (2012). A study on the intergroup contact hypothesis: Interaction between the new immigrants and the local citizens in Shanghai. *Chinese Journal of Sociology*, 32, 105–124. <https://doi.org/10.15992/j.cnki.31-1123/c.2012.02.008>
- 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, 152–168. <https://doi.org/10.1002/ejsp.2079>
- Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology*, 79, 602–616. <https://doi.org/10.1037/0022-3514.79.4.602>
- Mackie, D. M., & Smith, E. R. (2018). Intergroup emotions theory: Production, regulation, and modification of group-based emotions. *Advances in Experimental Social Psychology*, 58, 1–69. <https://doi.org/10.1016/bs.aesp.2018.03.001>
- Mazziotta, A., Rohmann, A., Wright, S. C., De Tezanos-Pinto, P., & Lutterbach, S. (2015). How does positive and negative extended cross-group contact predict direct cross-group contact and intergroup attitudes? *European Journal of Social Psychology*, 45, 653–667. <https://doi.org/10.1002/ejsp.2110>
- Muthén, L. K., & Muthén, B. O. (2017). *Mplus user's guide* (8th ed.). Muthén & Muthén.
- Paluck, E. L., & Green, D. P. (2009). Prejudice reduction: What works? A critical look at evidence from the field and the laboratory. *Annual Review of Psychology*, 60, 339–367. <https://doi.org/10.1146/annurev.psych.60.110707.163607>
- Pan, Z., & He, Q. (2017). Living space, social communication and subjective status cognition: A study on the identity of peasant workers. *Hunan Social Science*, 1, 80–87.
- Paolini, S., Harris, N. C., & Griffin, A. S. (2015). Learning anxiety in interactions with the outgroup: Towards a learning model of anxiety and stress in intergroup contact. *Group Processes and Intergroup Relations*, 19, 1–39. <https://doi.org/10.1177/1368430215572265>
- Paolini, S., Hewstone, M., & Cairns, E. (2007). Direct and indirect intergroup friendship effects: Testing the moderating role of the affective-cognitive bases of prejudice. *Personality and Social Psychology Bulletin*, 33, 1406–1420. <https://doi.org/10.1177/0146167207304788>
- Pennekamp, S. F., Doosje, B., Zebel, S., & Fischer, A. H. (2007). The past and the pending: The antecedents and consequences of group-based anger in historically and currently disadvantaged groups. *Group Processes and Intergroup Relations*, 10, 41–55. <https://doi.org/10.1177/1368430207071339>
- Pettigrew, T. F. (1998). Future directions for intergroup contact theory and research. *International Journal of Intercultural Relations*, 32, 187–199. <https://doi.org/10.1016/j.ijintrel.2007.12.002>
- Pettigrew, T. F., & Tropp, L. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90, 751–783. <https://doi.org/10.1037/0022-3514.90.5.751>
- Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, 38, 922–934. <https://doi.org/10.1002/ejsp.504>
- Pettigrew, T. F., & Tropp, L. R. (2011). *When groups meet: The dynamics of intergroup contact*. Psychology Press.
- Ratcliff, C. D., Czuchry, M., Scarberry, N. C., Thomas, J. C., Dansereau, D. F., & Lord, C. G. (1999). Effects of directed thinking on intentions to engage in beneficial activities: Actions versus reasons. *Journal of Applied Social Psychology*, 29, 994–1009. <https://doi.org/10.1111/j.1559-1816.1999.tb00136.x>
- Reimer, N. K., Becker, J. C., Benz, A., Christ, O., Dhont, K., Klocke, U., Neji, S., Rychlowska, M., Schmid, K., & Hewstone, M. (2017). Intergroup contact and social change: Implications of negative and positive contact for collective action in advantaged and disadvantaged groups. *Personality and Social Psychology Bulletin*, 43, 121–136. <https://doi.org/10.1177/0146167216676478>
- Schäfer, S. J., Kauff, M., Prati, F., Kros, M., Lang, T., & Christ, O. (2021). Does negative contact undermine attempts to improve intergroup relations? Deepening the understanding of negative contact and its consequences for intergroup contact research and interventions. *Journal of Social Issues*, 77, 197–216. <https://doi.org/10.1111/josi.12422>
- Seger, C. R., Banerji, I., Hee Park, S., Smith, E. R., & Mackie, D. M. (2016). Specific emotions as mediators of the effect of intergroup contact on prejudice: Findings across multiple participant and target groups. *Cognition and Emotion*, 31, 923–936. <https://doi.org/10.1080/02699931.2016.1182893>
- Selvanathan, H., Techakesari, P., Tropp, L. R., & Barlow, F. K. (2018). Whites for racial justice: How contact with Black Americans predicts support for collective action among White Americans. *Group Processes and Intergroup Relations*, 21, 893–912. <https://doi.org/10.1177/1368430217690908>
- Shelton, J. N., & Richeson, J. A. (2005). Intergroup contact and pluralistic ignorance. *Journal of Personality and Social Psychology*, 88, 91–107. <https://doi.org/10.1037/0022-3514.88.1.91>
- Stephan, W. G., & Finlay, K. (1999). The role of empathy in improving intergroup relations. *Journal of Social Issues*, 55, 729–743. <https://doi.org/10.1111/0022-4537.00144>
- 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, 38–67. <https://doi.org/10.1177/0095798402239228>
- Talaska, C. A., Fiske, S. T., & Chaiken, S. (2008). Legitimizing racial discrimination: Emotions, not beliefs, best predict discrimination in a meta-analysis. *Social Justice Research*, 21, 263–396. <https://doi.org/10.1007/s11211-008-0071-2>
- Thomas, E. F., McGarty, C., & Mavor, K. I. (2009). Transforming apathy into movement: The role of prosocial emotions in motivating action for social change. *Personality and Social Psychology Review*, 13, 310–333. <https://doi.org/10.1177/1088868309343290>
- Tropp, L. R., & Pettigrew, T. F. (2005). Relationships between intergroup contact and prejudice among minority and majority status groups. *Psychological Science*, 16, 951–957. <https://doi.org/10.1111/j.1467-9280.2005.01643.x>
- 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, 212–255. <https://doi.org/10.1080/10463280701680297>
- Turner, R. N., Hewstone, M., Voci, A., & Vonofakou, C. (2008). A test of the extended intergroup contact hypothesis: The mediating role of intergroup anxiety, perceived ingroup and outgroup norms, and inclusion of the outgroup in the self. *Journal of Personality & Social Psychology*, 95, 843–860. <https://doi.org/10.1037/a0011434>
- Turner, R. N., Tam, T., Hewstone, M., Kenworthy, J., & Cairns, E. (2013). Contact between Catholic and Protestant schoolchildren in Northern Ireland. *Journal of Applied Social Psychology*, 43, 216–228. <https://doi.org/10.1111/jasp.12018>

- Ülger, Z., Dette-Hagenmeyer, D. E., Reichle, B., & Gaertner, S. L. (2018). Improving outgroup attitudes in schools: A meta-analytic review. *Journal of School Psychology, 67*, 88–103. <https://doi.org/10.1016/j.jsp.2017.10.002>
- van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin, 134*, 504–535. <https://doi.org/10.1037/0033-2909.134.4.504>
- Vedder, P., Wenink, E., & van Geel, M. (2017). Intergroup contact and prejudice between Dutch majority and Muslim minority youth in the Netherlands. *Cultural Diversity and Ethnic Minority Psychology, 23*, 477–485. <https://doi.org/10.1037/cdp0000150>
- Vezzali, L. (2017). Valence matters: Positive meta-stereotypes and interethnic interactions. *Journal of Social Psychology, 157*, 247–261. <https://doi.org/10.1080/00224545.2016.1208140>
- Vezzali, L., Hewstone, M., Capozza, D., Giovannini, D., & Wölfer, R. (2014). Improving intergroup relations with extended and vicarious forms of indirect contact. *European Review of Social Psychology, 25*, 314–389. <https://doi.org/10.1080/10463283.2014.982948>
- Vezzali, L., Hewstone, M., Capozza, D., Trifiletti, E., & Di Bernardo, G. A. (2017). Improving intergroup relations with extended contact among young children: Mediation by intergroup empathy and moderation by direct intergroup contact. *Journal of Community and Applied Social Psychology, 27*, 35–49. <https://doi.org/10.1002/casp.2292>
- Vezzali, L., & Stathi, S. (2021). *Using intergroup contact to fight prejudice and negative attitudes: Psychological perspectives. European Monographs in Social Psychology Series*. Routledge.
- Vezzali, L., Stathi, S., Giovannini, D., Capozza, D., & Visintin, E. P. (2015). "And the best essay is...": Extended contact and cross-group friendships at school. *British Journal of Social Psychology, 54*, 601–615. <https://doi.org/10.1111/bjso.12110>
- Visintin, E. P., Brylka, A., Green, E. G. T., Mahonen, T. A., & Jasinskaja-Lahti, I. (2016). The dynamics of interminority extended contact: The role of affective and cognitive mediators. *Cultural Diversity and Ethnic Minority Psychology, 22*, 467–478.
- Visintin, E. P., Voci, A., Pagotto, L., & Hewstone, M. (2017). Direct, extended, and mass-mediated contact with immigrants in Italy: Their associations with emotions, prejudice, and humanity perceptions. *Journal of Applied Social Psychology, 47*, 175–194. <https://doi.org/10.1111/jasp.12423>
- Wakslak, C. J., Jost, J. T., Tyler, T. R., & Chen, E. S. (2007). Moral outrage mediates the dampening effect of system justification on support for redistributive social policies. *Psychological Science, 18*, 267–274. <https://doi.org/10.1111/j.1467-9280.2007.01887.x>
- Wang, C., Huang, F., & Vezzali, L. (2019). A test of positive and negative extended contact among a Chinese minority with perceived group norms and intergroup anxiety as mediators. *Journal of Applied Social Psychology, 49*, 399–408. <https://doi.org/10.1111/jasp.12532>
- Wang, H., Chen, Z., & Lu, M. (2009). Household registration, social segmentation and trust: An empirical study from Shanghai. *The Journal of World Economy, 10*, 81–96. [cnki:sun:sjij.0.2009-10-010](https://doi.org/10.1002/sjij.0.2009-10-010)
- Wang, Y., & Mao, N. (2016). Socioeconomic status, intergroup contact and social distance: A study on relationship between citizens and migrants. *Journal of Nanjing Agricultural University (Social Sciences Edition), 16*, 60–70.
- Wang, K. Q., & Liu, L. P. (2015). Intergroup contact, interpersonal trust and social distance: A study of the intergroup relations between the urban residents and the migrant workers. *Journal of Yunnan University(Social Sciences Edition), 14*, 87–96.
- White, F. A., Borinca, I., Vezzali, L., Reynolds, K. J., Blomster Lyshol, J. K., Verrelli, S., & Falomir-Pichastor, J. M. (2021). Beyond direct contact: The theoretical and societal relevance of indirect contact for improving intergroup relations. *Journal of Social Issues, 77*, 132–153. <http://dx.doi.org/10.1111/josi.12400>
- Wölfer, R., Christ, O., Schmid, K., Tausch, N., Buchallik, F. M., Vertovec, S., & Hewstone, M. (2019). Indirect contact predicts direct contact: Longitudinal evidence and the mediating role of intergroup anxiety. *Journal of Personality and Social Psychology, 116*, 277–295. <https://doi.org/10.1037/pspi0000146>
- Wölfer, R., Jaspers, E., Blaylock, D., Wigoder, C., Hughes, J., & Hewstone, M. (2017). Studying positive and negative direct and extended contact: Complementing self-reports with social network analysis. *Personality and Social Psychology Bulletin, 43*, 1566–1581. <https://doi.org/10.1177/0146167217719732>
- Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology, 73*, 73–90. <https://doi.org/10.1037/0022-3514.73.1.73>
- Xing, C., & Lu, L. (2015). The power of social interaction: Subjective social distance between Beijing citizens and the new generation of migrant workers. *Population and Economics, 4*, 52–59.
- Zhang, Q., Feng, J. P., & Wang, E. P. (2009). The classification of intergroup threat and the effect of threat on prejudice. *Advances in Psychological Science, 17*, 473–480. [cnki:sun:xlxd.0.2009-02-035](https://doi.org/10.1002/sun:xlxd.0.2009-02-035)
- Zhou, S., Page-Gould, E., Aron, A., Moyer, A., & Hewstone, M. (2019). The extended contact hypothesis: A meta-analysis on 20 years of research. *Personality and Social Psychology Review, 23*, 132–160. <https://doi.org/10.1177/1088868318762647>

How to cite this article: Wang, C., Cocco, V. M., & Vezzali, L. (2022). Testing the association of positive and negative extended contact with intergroup contact intentions in China: The mediating role of intergroup anger, empathy, and happiness. *Journal of Applied Social Psychology, 52*, 305–315. <https://doi.org/10.1111/jasp.12860>