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The More Exposure, the More Willingness to Engage? It Depends on Valence and Efficacy

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Abstract

In the context of interethnic relations in China, this research examined the effects and mechanisms of two valences of interethnic contact. Study 1 sampled Uyghur and Han university students with interethnic interaction experience from inland China and Xinjiang (sample sizes for Han and Uyghur participants from inland China and Xinjiang were 448, 791, 375, and 901, respectively). Study 2 sampled Hui and Han middle school students from Ningxia (Hui: 565, Han: 957). Across the two studies, we tested the effects of positive and negative interethnic contact on interethnic contact intentions across six samples, and examined the mediating role of interethnic self-efficacy. The results showed that positive interethnic contact was significantly more frequent than negative interethnic contact; the more positive interethnic contact, the higher the interethnic contact intention; the more negative interethnic contact, the lower the interethnic contact intention; and the facilitative effect of positive interethnic contact was stronger than the inhibitory effect of negative interethnic contact. Interethnic self-efficacy partially mediated the effect of positive interethnic contact on interethnic contact intention, and was more effective in mediating the effect of negative interethnic contact. The effects of the two valences of interethnic contact did not differ between majority and minority groups as expected. The findings have theoretical significance for understanding the current state and effects of interethnic contact in China and enriching evidence on intergroup contact research, and practical significance for strengthening exchanges, communication, and integration among all ethnic groups.

Full Text

Does More Contact Lead to Greater Contact Intention? It Depends on Valence and Efficacy

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Abstract

This study examines the effects and mechanisms of two valences of interethnic contact within China's interethnic context. Study 1 recruited Uyghur and Han university students with interethnic interaction experience from inland China and Xinjiang (sample sizes: 448 and 791 Han, 375 and 901 Uyghur from inland and Xinjiang respectively). Study 2 recruited Hui and Han middle school students from Ningxia (565 Hui, 957 Han). Across six samples, both studies tested the effects of positive and negative interethnic contact on interethnic contact intention, with interethnic self-efficacy examined as a mediator. Results indicated that positive interethnic contact occurred significantly more frequently than negative contact. Positive contact positively predicted interethnic contact intention, whereas negative contact negatively predicted intention, with the facilitative effect of positive contact exceeding the inhibitory effect of negative contact. Interethnic self-efficacy partially mediated the effect of positive contact on contact intention and more effectively mediated the effect of negative contact. No expected differences emerged between majority and minority groups regarding the effects of the two contact valences. These findings have theoretical significance for understanding the current state and effects of interethnic contact in China and for enriching intergroup contact research, as well as practical implications for promoting interethnic exchange, interaction, and integration.

Keywords: positive interethnic contact; negative interethnic contact; interethnic contact intention; interethnic self-efficacy

1. Introduction

Interethnic relations constitute a vital component of social relations in China and play a crucial role in social stability and development. Since the founding of the People's Republic, central and local governments have promoted common development among all ethnic groups at multiple levels, committed to building harmonious and amicable ethnic relations. At the 19th National Congress of the Communist Party of China, General Secretary Xi Jinping emphasized in his report the need to "deepen education on ethnic unity and progress, forge

a strong sense of community for the Chinese nation, strengthen interethnic exchange, interaction, and integration, and promote all ethnic groups to unite closely like pomegranate seeds in their shared struggle for prosperity and development.” While China’s current interethnic relations remain generally stable, negative interethnic attitudes and prejudices persist, hindering interethnic exchange and integration, deepening ethnic divisions, and increasing costs to social stability and development. In response to this reality, the General Secretary also explicitly called for “rigorous prevention and resolute crackdown on various infiltration, subversion, sabotage activities, violent terrorist activities, ethnic separatist activities, and religious extremist activities.” Thus, promoting interethnic solidarity and common development amid evolving domestic and international circumstances has become a critical task in building a harmonious society, naturally attracting attention from social sciences including psychology.

The promotion of exchange, interaction, and integration mentioned in the 19th Congress report, alongside the opposition to violence, separatism, and extremism, corresponds to the positive and negative dimensions of interethnic relations and interactions. This valence-based distinction also exists in intergroup contact research, where contact is categorized as either positive or negative (e.g., Techakesari, Barlow, Hornsey, Sung, Thai, & Chak, 2015; Berge, Lancee, & Jaspers, 2017). Intergroup contact theory, with its extensive empirical foundation, has become one of the most influential theories in intergroup relations research and prejudice reduction practice (Pettigrew & Tropp, 2011; Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014). However, Pettigrew and Tropp’s (2006) meta-analysis of 713 independent samples found that fewer than 5% involved negative contact. In other words, previous intergroup contact research exhibited a “positive bias,” focusing more on positive contact effects and mechanisms while neglecting negative contact. This research tradition did not arise because negative contact is nonexistent, unimportant, or irrelevant to improving intergroup relations, but rather because intergroup contact research has policy implications—helping formulate or evaluate policies to reduce prejudice and improve intergroup relations—and studying positive contact more directly serves this purpose (Graf & Paolini, 2017). In reality, negative intergroup contact does exist, such as unpleasant interactions, unfair treatment, and discrimination, and it negatively impacts intergroup attitudes, contact intention, and behavior (Jasinskaja-Lahti, Mähönen, & Liebkind, 2012; Kauff et al., 2017; Mazziotta, Rohmann, Wright, Tezanos-Pinto, & Lutterbach, 2015). Moreover, intergroup contact theory based primarily on positive contact research faces explanatory challenges; for instance, some studies show that in multiethnic or multiracial countries and regions, more contact is associated with greater prejudice (Ayers, Hofstetter, Schnakenberg, & Kolody, 2009; Cernat, 2010). Based on these considerations, Pettigrew (2008) called for more research on negative intergroup contact to comprehensively examine contact’s impact on intergroup relations and expand intergroup contact theory. Recent studies incorporating both positive and negative contact have increased, revealing that in stable societies without severe segregation, positive contact experiences in daily life outnum-

ber negative ones (Graf, Paolini, & Rubin, 2014; Mähönen & Jasinskaja-Lahti, 2016; Paolini, Harwood, & Rubin, 2010), whereas in conflict-ridden societies, negative contact experiences predominate (Visintin, Green, Pereira, & Miteva, 2017). Given that China's multiethnic relations are generally harmonious and stable, we propose Hypothesis 1:

Hypothesis 1: In China's interethnic context, positive interethnic contact occurs more frequently than negative interethnic contact.

Numerous studies have demonstrated significant positive effects of positive contact on intergroup relations and interactions (Pettigrew & Tropp, 2006), while recent research on negative contact reveals its detrimental effects (Graf & Paolini, 2017). Traditional intergroup contact theory posits that positive contact reduces prejudice, but this effect requires willingness to engage in contact, making contact intention a valuable outcome variable (Ron, Solomon, Halperin, & Saguy, 2017). Research indicates that intergroup contact affects affective and behavioral components of intergroup attitudes differently (Tropp & Pettigrew, 2005), necessitating attention to behavioral intention. Regarding the relationship between contact experience and contact intention, on one hand, more positive contact indicates greater contact opportunities in the environment. On the other hand, from a behaviorist perspective, more positive contact forms corresponding habits that reinforce positive interethnic interaction behaviors, thereby increasing contact intention. Conversely, negative contact undermines contact intention. Based on this, we propose Hypothesis 2:

Hypothesis 2: Interethnic contact experience is significantly correlated with interethnic contact intention.

Hypothesis 2a: More positive interethnic contact experience is associated with stronger interethnic contact intention.

Hypothesis 2b: More negative interethnic contact experience is associated with weaker interethnic contact intention.

As negative contact research has progressed, the relative magnitude of effects for the two valences has attracted attention, though findings remain inconsistent. The valence asymmetry model in intergroup relations (Graf & Paolini, 2017; Paolini & McIntyre, 2019) suggests that group identity salience is higher in negative than positive contact, and this salience promotes generalization of both positive and negative contact effects from the individual to group level, making negative contact more impactful (Graf & Paolini, 2017; Paolini et al., 2010). This view has received empirical support (Barlow et al., 2012; Hayward, Tropp, Hornsey, & Barlow, 2017). However, other studies find that positive contact has greater impact than negative contact (e.g., Pettigrew, Tropp, Wagner, & Christ, 2011). The positive advantage perspective argues that positive contact accumulates larger effects due to its numerical superiority (Graf et al., 2014). Considering China's interethnic context—where, despite some negative contact, current interethnic relations are generally stable and characterized by equality,

unity, mutual assistance, and harmony, with institutional support for positive contact and restraint of negative contact—we propose Hypothesis 3:

Hypothesis 3: The facilitative effect of positive interethnic contact on contact intention is greater than the inhibitory effect of negative interethnic contact.

Research in some intergroup contexts shows that positive and negative contact not only have direct positive and negative effects on intergroup relations (Aberson, 2015; Hayward, Tropp, Hornsey, Kate, & Barlow, 2018) but also indirect effects through mediators such as intergroup self-efficacy (Mazziotta et al., 2015). Self-efficacy refers to individuals' beliefs in their ability to organize and execute actions to achieve specific outcomes, influencing subsequent motivation and behavior (Bandura, 1997). Researchers have introduced social cognitive theory and self-efficacy concepts into intergroup contact research, developing measurement tools for empirical studies. For instance, Gougeon (2015) found that positive contact enhanced Canadian university students' self-efficacy for contact with Indigenous peoples. Mazziotta, Mummendey, and Wright (2011) examined self-efficacy's mediating role between positive contact and intergroup attitudes/intentions in Germany, finding that positive contact significantly increased self-efficacy, thereby improving attitudes and strengthening intentions. Mazziotta et al. (2015) more recently found that intergroup self-efficacy mediated effects of both positive and negative contact. Interethnic self-efficacy refers to domain-specific self-efficacy in interethnic contexts—individuals' judgments of their ability to successfully engage in interethnic interaction, build interethnic relationships, and handle interethnic issues. Based on social learning theory and findings from other intergroup contexts, direct or indirect positive interethnic contact experiences (i.e., successful contact) should enhance interethnic self-efficacy and strengthen future interethnic interaction intentions, whereas negative interethnic contact experiences (i.e., failed contact) should reduce self-efficacy and weaken intentions. Accordingly, we propose Hypothesis 4:

Hypothesis 4: Interethnic self-efficacy mediates the relationship between interethnic contact experience and interethnic contact intention.

Hypothesis 4a: Positive interethnic contact experience enhances interethnic self-efficacy, thereby strengthening interethnic contact intention.

Hypothesis 4b: Negative interethnic contact experience reduces interethnic self-efficacy, thereby weakening interethnic contact intention.

The effects of intergroup contact on outcomes are moderated by several conditions. Pettigrew and Tropp's (2006) meta-analysis found that positive contact effects were stronger among majority than minority groups, a conclusion supported by recent research (Binder et al., 2009; Feddes, Noack, & Rutland, 2009; Gómez, Tropp, & Fernández, 2011). They argued that during intergroup interactions, minority group members are more likely to perceive or anticipate discrimination from majority groups, which inhibits positive contact's beneficial effects on intergroup relations for minorities, making positive contact effects

larger among majorities (Pettigrew & Tropp, 2006). Barlow et al. (2012) suggested that negative contact effects are also influenced by group identity. Minority groups, more concerned about experiencing discrimination or prejudice during intergroup interactions, hold more negative expectations of majority groups. Negative contact validates these expectations, serving as evidence of outgroup discrimination against oneself and one's group, thereby producing larger negative contact effects among minorities (Vedder, Wenink, & van Geel, 2017; Visintin et al., 2017). In other words, both positive and negative contact effects are asymmetrical for the two groups in specific intergroup contexts. Recent studies have examined interethnic contact effects in Chinese contexts, such as imagined contact (Liu, Sun, Li, & Long, 2014; Yao, Yu, Duan, & Qiao, 2015). Our research comprises two studies: Study 1 focuses on the Uyghur-Han interethnic context (hereafter Uyghur-Han), using Uyghur and Han university students from inland China and Xinjiang; Study 2 focuses on the Hui-Han interethnic context (hereafter Hui-Han), using Hui and Han middle school students from Ningxia. According to the sixth national census, Han comprise 91.51% of the total population, Hui 0.7943%, and Uyghur 0.7555%. Nationally, Han constitute the majority group, while Hui and Uyghur are minority groups. Accordingly, we propose Hypothesis 5:

Hypothesis 5: The effects of positive and negative interethnic contact differ by ethnic group status.

Hypothesis 5a: The effect of positive interethnic contact is stronger among Han than among Uyghur or Hui samples.

Hypothesis 5b: The effect of negative interethnic contact is stronger among Uyghur and Hui samples than among Han samples.

2. Study 1: Testing in the Uyghur-Han Interethnic Context

2.1 Participants

Inland Han Sample. We administered questionnaires to Han participants in inland universities (selected based on the principle of having Uyghur classmates in their classes or dormitories). Of 480 questionnaires distributed, 448 were valid after screening for careless responding, excessive missing items, or lack of key information (validity rate: 93.3%). The sample included 195 males and 253 females, aged 17-25 years ($M = 20.33$, $SD = 1.66$), with 85 freshmen, 108 sophomores, 121 juniors, and 134 seniors.

Xinjiang Han Sample. We administered questionnaires to Han participants in Xinjiang universities. Of 862 questionnaires collected, 791 were valid after screening (validity rate: 91.7%). The sample included 275 males, 505 females, and 11 missing gender reports, aged 16-25 years ($M = 20.13$, $SD = 1.23$), with 192 freshmen, 393 sophomores, 195 juniors, and 8 seniors.

Inland Uyghur Sample. We administered questionnaires to Uyghur participants in inland universities. Of 414 questionnaires collected, 375 were valid

(validity rate: 90.6%). The sample included 140 males and 235 females, aged 17-25 years ($M = 21.73$, $SD = 1.75$), with 93 in preparatory courses/freshmen, 71 sophomores, 90 juniors, and 121 seniors/fifth-year medical students.

Xinjiang Uyghur Sample. We administered questionnaires to Uyghur participants in Xinjiang universities. Of 1,034 questionnaires collected, 901 were valid (validity rate: 87.1%). The sample included 234 males, 642 females, and 25 missing gender reports, aged 17-24 years ($M = 20.77$, $SD = 1.19$), with 122 freshmen, 358 sophomores, 405 juniors, and 16 seniors.

2.2 Measures

Multidimensional Interethnic Contact Scale. Based on contact types (direct, online, extended, vicarious, imagined) and valence (positive and negative), we conceptualized multidimensional interethnic contact and developed a scale (Huang, Wang, Shi, & Halike, 2018). Positive and negative contact each included five contact types, comprising 10 subscales with 40 items total (4 items per subscale, 20 each for positive and negative contact). Using a 5-point scale (1 = never happened, 5 = happens frequently in daily life, with 2, 3, and 4 representing intermediate frequencies), higher scores indicated more interethnic contact experience. Internal consistency for positive and negative contact across the four samples was 0.92, 0.93, 0.92, 0.92 and 0.83, 0.90, 0.90, 0.92 respectively, demonstrating good structural validity.

Interethnic Contact Intention Scale. We adapted Crisp and Husnu' s (2011) scale to the current interethnic context. The 10-item scale (e.g., "If you encounter Uyghur/Han people, how likely do you think you would chat with them?"; "If you encounter Uyghur/Han people, would you be interested in chatting with them?"; "If you encounter Uyghur/Han people, would you want to chat with them?") used a 9-point scale (1 = not at all, 9 = very much). Internal consistency across the four samples was 0.93, 0.93, 0.90, and 0.92. Higher scores indicated stronger future interethnic contact intention.

Interethnic Self-Efficacy Scale. Following Mazziotta et al. (2011), we developed three items to measure interethnic self-efficacy: "I believe I can form positive and harmonious relationships with X ethnic group members" ; "Even during sensitive periods in ethnic relations, I can maintain positive interactions with X ethnic group members" ; "I believe I have the ability to handle unexpected situations when interacting with X ethnic group members." Using a 7-point scale (1 = strongly disagree, 7 = strongly agree), internal consistency coefficients across the four samples were 0.71, 0.85, 0.77, and 0.86. Higher scores indicated greater interethnic self-efficacy.

2.3 Procedure

Inland Uyghur-Han Data Collection. Data collection occurred in three phases: First, we contacted target students at nine inland universities, and after obtaining consent, psychology graduate students (Han) and Uyghur univer-

sity students served as administrators. Second, through Uyghur administrators, we contacted students at 11 additional inland universities; after explaining the research and obtaining consent, administrators at each school (provided with written instructions and precautions) conducted the survey. Third, Han administrators surveyed eligible Han students. Due to location and time constraints, 160 Uyghur students completed electronic questionnaires. We distributed 502 questionnaires to Han students (95.6% response rate) and 442 to Uyghur students (93.7% response rate).

Xinjiang Uyghur-Han Sample Collection. In a university in southern Xinjiang, Phase 1 involved contacting psychology public course instructors, obtaining student consent, and distributing appropriate versions based on ethnic identity for group administration with immediate collection. Phase 2 involved obtaining consent from homeroom teachers and students, distributing general versions by class during homeroom meetings with immediate collection, with some individual administration. We distributed 900 questionnaires to Han students (95.8% response rate) and 1,100 to Uyghur students (94.0% response rate).

2.4 Results

2.4.1 Common Method Bias Control and Assessment All scales were completed anonymously using three rating scales (5-point, 9-point, and 7-point) to control for common method bias procedurally. We conducted Harman's single-factor test (Zhou & Long, 2004) for statistical assessment. Results showed that the first factor explained 20.40%, 27.95%, 22.04%, and 24.67% of variance in the four samples respectively, all below the 40% critical threshold, indicating no severe common method bias.

2.4.2 Descriptive Statistics and Valence Comparison Descriptive statistics for the four Uyghur-Han samples are presented in Table 1. Dependent t-tests comparing positive and negative contact in each sample yielded: $t(447) = 34.04$, $p < 0.001$, Cohen's $d = 1.61$; $t(790) = 45.02$, $p < 0.001$, Cohen's $d = 1.60$; $t(374) = 50.38$, $p < 0.001$, Cohen's $d = 2.60$; $t(900) = 68.81$, $p < 0.001$, Cohen's $d = 2.29$. Positive interethnic contact significantly exceeded negative contact, supporting Hypothesis 1 across all four samples.

2.4.3 Correlation Analysis and Valence Asymmetry Correlation results for inland and Xinjiang Uyghur-Han samples appear in Table 2. Positive interethnic contact correlated significantly and positively with contact intention across all four samples, reaching medium effect sizes with a weighted correlation of 0.56, supporting Hypothesis 2a. Negative interethnic contact correlated significantly and negatively with contact intention, with low to medium-low correlations and a weighted correlation of -0.25, supporting Hypothesis 2b. Tests of valence asymmetry showed that positive contact's facilitative effect significantly exceeded negative contact's inhibitory effect: $Z = 4.80$, $p < 0.001$; $Z =$

7.57, $p < 0.001$; $Z = 5.58$, $p < 0.001$; $Z = 9.15$, $p < 0.001$. Hypothesis 3 was supported.

2.4.4 Mediation Analysis of Interethnic Self-Efficacy Path analysis with positive and negative contact as predictors, interethnic self-efficacy as mediator, and contact intention as outcome is shown in Figure 1 [Figure 1: see original paper], with effect decomposition in Table 3 .

Results indicated that across all four samples, positive contact both directly affected contact intention and indirectly influenced it through interethnic self-efficacy, with a weighted average mediation rate of 24% and a medium total effect. Negative contact had significant direct effects on contact intention in three of four samples and significantly weakened contact intention indirectly by reducing self-efficacy, with a weighted average mediation rate of 51% and a small total effect. Using bootstrap resampling with 5,000 samples of equal size to each subsample, we estimated 95% confidence intervals (Table 3). The 95% CIs for indirect effects of both positive and negative contact on intention excluded zero across all samples, supporting Hypotheses 4a and 4b.

2.4.5 Comparison of Contact Effects Between Uyghur and Han Samples Based on the four correlation matrices in Table 2, we compared correlations between positive contact and intention, and negative contact and intention, across Han and Uyghur groups. In Xinjiang, positive contact's effect was stronger among Han than Uyghur ($0.64 > 0.57$, $Z = 2.27$, $p < 0.05$). In inland areas, the difference between Han and Uyghur samples was nonsignificant (0.44 vs. 0.51 , $Z = -1.29$, $p = 0.20$). Hypothesis 5a was supported in Xinjiang but not inland. In Xinjiang, negative contact's effect was stronger among Han than Uyghur (absolute correlations: $0.38 > 0.23$, $Z = 3.40$, $p < 0.001$), contrary to predictions. Inland differences were nonsignificant (0.14 vs. 0.17 , $Z = -0.44$, $p = 0.66$). Hypothesis 5b was not supported in either region.

Comparing direct, indirect, and total effects from Table 3, 95% CIs overlapped between Han and Uyghur in both inland and Xinjiang, indicating no significant differences at $\alpha = 0.05$. Treating path analysis effects as correlations for difference tests: positive contact: $Z(0.44 \text{ vs. } 0.49) = -0.91$, $p = 0.36$; $Z(0.58 \text{ vs. } 0.54) = 1.19$, $p = 0.23$; negative contact: $Z(0.11 \text{ vs. } 0.16) = -0.73$, $p = 0.47$; $Z(0.15 \text{ vs. } 0.24) = -1.92$, $p = 0.055$. Overall, neither Hypothesis 5a nor 5b received support.

2.5 Summary

Study 1 examined positive and negative contact and their effects on contact intention in the Uyghur-Han interethnic context, selecting both majority and minority groups from inland (Uyghur diaspora area) and Xinjiang (Uyghur concentrated area), measuring various contact types, and testing interethnic self-efficacy's mediating role. Conclusions: (1) Positive interethnic contact far exceeded negative contact; (2) Interethnic contact correlated significantly with

contact intention—more positive contact strengthened intention while more negative contact weakened it; (3) Positive contact' s facilitative effect on intention exceeded negative contact' s inhibitory effect; (4) Interethnic self-efficacy partially mediated effects of both positive and negative contact on intention; (5) No consistent evidence supported differences in contact effects between majority and minority groups.

3. Study 2: Testing in the Hui-Han Interethnic Context

3.1 Participants

Han Middle School Sample. We administered questionnaires to Han middle school students in two counties in Ningxia using cluster sampling. Of 969 questionnaires collected, 957 were valid (98.8% validity rate). The sample included 474 males, 452 females, and 31 missing gender reports; 486 junior high and 471 senior high students; mean age = 15.67 years (SD = 1.80).

Hui Middle School Sample. We administered questionnaires to Hui middle school students in the same two Ningxia counties using cluster sampling. Of 571 questionnaires collected, 565 were valid (98.9% validity rate). The sample included 240 males, 296 females, and 29 missing gender reports; 301 junior high and 264 senior high students; mean age = 15.90 years (SD = 1.91).

3.2 Measures

Measures were adapted from Study 1 for the Hui-Han interethnic context. Internal consistency coefficients were: positive contact = 0.92 (Han) and 0.93 (Hui); negative contact = 0.92 (Han) and 0.90 (Hui); contact intention = 0.94 (both groups); interethnic self-efficacy = 0.88 (Han) and 0.86 (Hui). All scales demonstrated good reliability and validity in the middle school samples.

3.3 Procedure

With school permission and teachers' assistance, we selected 30 senior high classes and 24 junior high classes across four middle schools in two Ningxia counties for group administration with immediate collection. We distributed 1,823 questionnaires, retrieving 1,540 identified as Hui or Han (84.5% response rate).

3.4 Results

Harman' s single-factor test assessed common method bias. The first factor explained 24.69% and 27.14% of variance in Han and Hui middle school samples respectively, below the 40% threshold, indicating minimal common method bias. Procedural controls matched Study 1.

Descriptive statistics for Ningxia Hui-Han samples appear in Table 4 . Dependent t-tests yielded $t(956) = 33.14, p < 0.001, \text{Cohen' s } d = 1.31$; $t(565) = 40.48,$

$p < 0.001$, Cohen's $d = 1.39$. Positive contact significantly exceeded negative contact, supporting Hypothesis 1 in both samples.

Based on correlations in Table 4, positive contact correlated moderately and positively with contact intention in both samples (weighted $r = 0.58$), supporting Hypothesis 2a. Negative contact correlated negatively with intention (weighted $r = -0.21$), supporting Hypothesis 2b. Comparing effect sizes, positive contact's effect significantly exceeded negative contact's effect: $Z = 9.44$, $p < 0.001$; $Z = 9.20$, $p < 0.001$, supporting Hypothesis 3.

Path analysis results for Hui-Han middle school samples appear in Figure 2 [Figure 2: see original paper], with effect decomposition in Table 5. Positive contact's total effect on intention was mediated 24% and 28% through self-efficacy; bootstrap tests supported Hypothesis 4a. Negative contact significantly affected intention through reduced self-efficacy, with mediation rates of 49% and 65%; bootstrap tests supported Hypothesis 4b.

Comparing effects between Hui and Han samples: Zero-order correlations showed positive contact's effect was significantly lower among Han than Hui ($0.55 < 0.63$, $Z = -2.31$, $p = 0.02$), contrary to predictions, failing to support Hypothesis 5a. Negative contact effects did not differ significantly (0.20 vs. 0.22 , $Z = -0.39$, $p = 0.69$), failing to support Hypothesis 5b. Path analysis effect comparisons showed overlapping 95% CIs, indicating no significant differences. Total effect difference tests: positive contact $Z(0.53$ vs. $0.60) = -1.94$, $p = 0.053$; negative contact $Z(0.12$ vs. $0.13) = -0.19$, $p = 0.85$. Overall, neither Hypothesis 5a nor 5b received support.

3.5 Summary

Study 2 tested research hypotheses in the Hui-Han interethnic context using Hui and Han middle school students from Ningxia (Hui concentrated area). Conclusions were largely consistent with Study 1. The two studies, conducted in different interethnic contexts with different participant groups, provide cross-validation and enhance conclusion reliability.

4. Discussion

Table 6 summarizes main findings across six samples in two interethnic contexts: (1) Valence is crucial for both quantity and effects of interethnic contact; (2) Interethnic self-efficacy plays a role in contact effects on intention; (3) No consistent evidence emerged for moderation by majority-minority status. We discuss these three aspects below.

4.1 Valence and Effects of Interethnic Contact

Addressing contact valence aims to capture complete contact experiences, requiring resolution of key issues in valence determination and measurement. Five

alternatives exist: (1) experimental manipulation (e.g., of contact partners' posture, tone); (2) counting nominated outgroup friends or enemies; (3) researcher-designed single or multiple positive/negative items requiring quantity reports; (4) determining valence based on contact participants' subjective experience; (5) combining subjective experience intensity with researcher-determined valence direction. Our multidimensional interethnic contact scale follows the third approach, incorporating multiple contact types with multiple specific items per type, assuming equal intensity across items. This offers more stable psychometric properties than single-item measurement (e.g., Barlow et al., 2012), similar to Hayward et al.'s (2017) Intergroup Contact Experience Scale. Recognizing multiple contact forms and measuring them accordingly responds to Dixon, Durrheim, and Tredoux (2005); incorporating both contact level and type into conceptualization and measurement better approximates real-world intergroup contact.

In China's Uyghur-Han and Hui-Han contexts, positive contact experiences substantially outnumbered negative ones, consistent with findings from other intergroup contexts (Graf et al., 2014; Paolini et al., 2010; Hayward et al., 2017). The large effect sizes align with the generally harmonious and stable state of these interethnic relations. Although positive contact dominates, non-negligible amounts of various negative contact forms exist. Contact quantity is influenced by regional ethnic composition—what researchers call diversity (Laurence & Bentley, 2018)—a key factor affecting interethnic contact opportunities. In regions where an ethnic group comprises a small population proportion, intragroup interaction alone cannot sustain all necessary social functioning. With physical factors like multiethnic mixed classes and embedded communities, cross-ethnic interaction opportunities and necessity increase. In our study, the weighted correlation between positive and negative contact was -0.15 , a low negative correlation indicating relative independence at the individual level. The negative correlation means more positive contact tends to accompany less negative contact, with no concerning trend of simultaneous increase, similar to Hayward et al.'s (2017, 2018) findings in U.S. interethnic contexts.

Consistent with hypotheses, more positive contact experience strengthened interethnic contact intention, while more negative contact experience weakened it. Several explanations exist for contact experience effects on intention: First, behaviorist drive motivation theory and reinforcement perspectives suggest that frequent positive contact forms habits with motivational properties that drive continued positive interethnic behavior. Positive interethnic behaviors paired with satisfying outcomes or positive feedback become reinforced, increasing their likelihood when interethnic situations recur. Negative contact, unreinforced or even institutionally punished, becomes less likely, reducing not only negative behaviors but general contact intention. Second, an interpersonal needs satisfaction approach suggests positive contact fulfills interaction partners' needs (e.g., affiliation, belonging), creating positive stable unions between individuals of different ethnic identities that generalize to other outgroup members. Third, environmentally, accumulated individual interethnic contact shapes interethnic

contact climate or norms. More positive contact signals: (a) contact opportunities exist, (b) contact precedents have been set, and (c) interethnic interaction is permitted, strengthening future contact intention. Additionally, Wright et al.'s (1997) explanations apply: More positive contact leads people to view themselves or observed others as typical ingroup representatives, believing ingroup norms support interethnic contact, facilitating generalization from interpersonal to interethnic levels. More positive contact also improves outgroup understanding, reduces cognitive bias, weakens negative stereotypes, and provides positive outgroup exemplars. It gradually dissolves intergroup boundaries, promotes superordinate identity, includes outgroups in self-concept, and forms friendship and psychological connections. Conversely, negative contact frustrates interpersonal needs, reduces satisfaction and connectedness, distances relationships, and generalizes to other outgroup members, weakening contact intention. More negative contact signals poor interethnic climate, making interethnic contact unwelcome and potentially subject to ingroup rejection, accentuating intergroup divisions and reducing contact intention.

Regarding valence asymmetry, our results show significant asymmetry across all samples for contact intention, supporting Pettigrew's (2008) view that positive contact effects are larger. This contrasts with asymmetry findings using prejudice as outcome (e.g., Barlow et al., 2012). Whether asymmetry favors negative or positive valence remains unresolved (Paolini & McIntyre, 2019), not universally supporting Baumeister, Bratslavsky, Finkenauer, and Vohs's (2001) "bad is stronger than good." Possible reasons include outcome variable type, research design, and outgroup type (Hayward et al., 2017). First, negative asymmetry may appear only for negative outcomes, whereas our positive outcome (contact intention) may show different patterns. Second, study type matters: experiments often manipulate single positive or negative contacts, assuming no recall of extensive past experiences, and with equal quantities, typically find negative asymmetry. Our findings of vastly more positive than negative contact suggest cumulative positive effects may reverse asymmetry. Third, outgroup type matters: meta-analyses show negative effects are stronger for stigmatized outgroups (Paolini & McIntyre, 2019). In China, no clearly stigmatized ethnic groups exist; relative equality and mutual appreciation prevent negative asymmetry.

4.2 Mediating Role of Interethnic Self-Efficacy

Our findings indicate that positive and negative interethnic contact experiences partially affect contact intention through interethnic self-efficacy. Specifically, with more positive Uyghur-Han or Hui-Han contact, self-efficacy increases, strengthening contact intention, with a mediation rate of approximately 25%—similar to partial mediation by intergroup anxiety, increased outgroup knowledge, and perspective-taking (Pettigrew & Tropp, 2008). More negative contact reduces self-efficacy, weakening intention, with a mediation rate of approximately 50%, consistent with prior research examining both valences simultaneously (Bekhuis, Ruiter, & Coenders, 2013). Our findings provide evidence

for self-efficacy' s mediating role in Chinese Uyghur-Han and Hui-Han contexts. Interethnic self-efficacy differentially mediates the two valences: it is a more effective mediator for negative contact in terms of mediation rate, but the indirect effect magnitude tends to be larger for positive contact.

Social learning theory posits that experiences (direct and indirect) shape self-efficacy—experience shapes cognition. Interethnic self-efficacy, like perspective-taking and outgroup knowledge, is a cognitive variable (Pettigrew & Tropp, 2008), whereas intergroup anxiety and anger are emotional variables (Hayward et al., 2017, 2018). In interethnic interaction and relations, successful contact experiences—such as positive greetings with feedback, open discussions of ethnic customs, cross-ethnic friendships, and positive interethnic information exposure—build confidence in establishing good interethnic relationships and handling issues, with accumulated successes creating stable self-efficacy. Conversely, failed experiences—such as interaction frustrations, disputes, and negative information transmission—undermine self-efficacy and reduce ability assessments, especially when failures occur before stable self-efficacy is established. That interethnic self-efficacy is significantly affected by both positive and negative contact is prerequisite for its mediating role. Another prerequisite is self-efficacy' s significant positive prediction of contact intention, consistent with self-efficacy motivation theory: “I can, therefore I will.” Inland and Xinjiang Uyghur-Han groups and Ningxia Hui-Han groups experience direct and various indirect positive and negative contacts that accumulate during ongoing interactions, shaping efficacy and influencing future interaction trajectories and interethnic relations. Enhanced interethnic self-efficacy strengthens interethnic interaction motivation and behavior, while reduced efficacy weakens motivation and hinders behavior.

4.3 Moderating Role of Ethnic Identity

We found positive contact' s effect on intention was stronger among Xinjiang Han than Xinjiang Uyghur, consistent with Pettigrew and Tropp' s (2006) meta-analysis. However, inland and Ningxia samples showed no consistent support. Negative contact' s effect was stronger among Xinjiang Han than Uyghur, contrary to predictions. No significant differences emerged in inland Uyghur-Han or Ningxia Hui-Han samples. These results diverge from prior research examining both valences simultaneously in majority and minority groups (Kanas, Scheepers, & Sterkens, 2015). Three possible explanations exist for the lack of consistent support for majority-minority moderation: First, foreign research contexts differ markedly from Chinese Uyghur-Han and Hui-Han contexts. Foreign studies often link majority with advantaged status and minority with disadvantaged status, whereas China' s ethnic policy ensures substantial equality between Han and Uyghur/Hui despite demographic majorities/minorities. Second, regional factors were not considered. At smaller geographic scales, majority-minority statuses may reverse: Han are absolute majorities inland, but minorities in Xinjiang (especially southern Xinjiang) and Ningxia (the most Hui-concentrated province). This explanation predicts stronger positive contact effects for Uyghur

in Xinjiang and stronger negative effects for Han, which was not fully supported. Third, relative quantities and interactions of the two valences may matter. For instance, inland Uyghur reported significantly more positive contact than inland Han, and this numerical advantage might increase its effect on intention. However, Xinjiang Uyghur also reported more positive contact than Han without showing larger effects, undermining this explanation. Differences in negative contact experiences were more subtle, and Uyghur' s much higher ratio of positive to negative contact may have offset negative contact' s impact (Graf et al., 2014).

4.4 Theoretical and Practical Implications

Examining both valences of contact and their mechanisms in China' s diverse interethnic contexts has theoretical and practical significance. Theoretically, strengthening negative contact research responds to Pettigrew' s (2008) call, enriches intergroup contact theory with Chinese ethnic context evidence, and contributes to comprehensive understanding. Practically, findings suggest two focal points for harmonious interethnic relations: (1) implementing effective measures to increase positive interethnic interaction and self-efficacy to enhance contact intention; (2) reducing and avoiding negative interaction at societal and individual levels and addressing its consequences, such as preventing self-efficacy reduction. The mediating role of self-efficacy suggests that besides enhancing self-efficacy through contact, interventions targeting self-efficacy directly may also strengthen contact intention.

Future research should: (1) employ longitudinal or experimental designs to better establish causality; (2) test generalizability beyond Uyghur-Han and Hui-Han contexts; (3) examine differential effects and relationships among contact types; (4) investigate how positive and negative contact interact, whether positive contact buffers negative effects, or whether negative contact undermines positive effects.

5. Conclusion

1. In China' s interethnic contexts, positive interethnic contact far exceeds negative contact, with a positive interethnic atmosphere as the dominant tone.
2. Positive interethnic contact experience facilitates contact intention, while negative contact experience inhibits it.
3. Valence asymmetry favors positive contact effects.
4. Interethnic self-efficacy mediates effects of both positive and negative contact experiences.
5. Positive and negative contact effects do not differ systematically between majority and minority groups.

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Appendix I: Multidimensional Interethnic Contact Scale (General Version)

Instructions: The following statements describe your past interactions with X ethnic group members. Please read each statement carefully and select the number (1-5) that best matches your actual experience. “1” means this has never happened, “5” means this happens frequently in daily life, and “2,” “3,” and “4” represent intermediate frequencies.

Never Happened → Frequently Happens

1. X ethnic group members greeted me proactively
2. I cooperated with X ethnic group members on tasks
3. I participated in (or organized) campus or social activities with X ethnic group members
4. I tasted food or went out with X ethnic group members
5. X ethnic group members responded coldly when I initiated conversation
6. X ethnic group members ridiculed or threatened me
7. I had conflicts with X ethnic group members in study or daily life
8. I had disagreements with X ethnic group members on ethnic issues
9. I shared materials online with X ethnic group members
10. I made X ethnic group friends on social networking platforms
11. I proactively chatted with X ethnic group members on QQ or WeChat
12. I reached positive consensus online with X ethnic group members on some issues
13. I had minor unpleasantness online with X ethnic group members
14. I sought help online from X ethnic group members but received no response
15. X ethnic group members used prejudiced language when chatting with me online
16. I am unwilling to contact X ethnic group members on WeChat, QQ, etc.

17. I know co-ethnics who chatted cheerfully with X ethnic group members
18. I know co-ethnics who participated in sports passionately with X ethnic group members
19. Co-ethnics told me they participated in entertainment activities with X ethnic group members
20. Co-ethnics told me they learned about each other' s traditional cultures with X ethnic group members
21. Co-ethnics told me X ethnic group members are not easy to get along with
22. Co-ethnics told me X ethnic group members deceived them
23. I know co-ethnics who had verbal conflicts with X ethnic group members
24. I know co-ethnics who had physical conflicts with X ethnic group members
25. I have watched movies/TV shows featuring co-ethnic and X ethnic group actors
26. I have watched videos of co-ethnics and X ethnic group members laughing together
27. I have watched videos of co-ethnics and X ethnic group members helping each other
28. I have watched promotional materials showing co-ethnics and X ethnic group members getting along harmoniously
29. I have watched pictures/videos of X ethnic group members making things difficult for my co-ethnics
30. I have read reports of conflicts between co-ethnics and X ethnic group members over transactions
31. I have seen online disputes between co-ethnics and X ethnic group members over ethnic issues
32. I have read articles describing tense relations between co-ethnics and X ethnic group members

Note: The following 8 items describe whether you have ever had such imaginations, not actual contact experiences.

33. I have imagined proactively getting to know X ethnic group members

around me

34. I have imagined X ethnic group members proactively greeting me
35. I have imagined having topics to discuss with X ethnic group members
36. I have imagined helping each other with X ethnic group members in study or daily life
37. I have imagined that knowing X ethnic group members might bring me insecurity
38. I have imagined having unpleasantness with X ethnic group merchants while shopping
39. I have imagined not getting help from X ethnic group members when needed
40. I have imagining being suspected and excluded by X ethnic group members

Appendix II: Interethnic Self-Efficacy Scale (General Version)

Instructions: Please read each statement carefully and select the number that best matches your actual situation.

Strongly Disagree → **Strongly Agree**

1. I believe I can form positive and harmonious relationships with X ethnic group members
2. Even during sensitive periods in ethnic relations, I can maintain positive interactions with X ethnic group members
3. I believe I have the ability to handle unexpected situations when interacting with X ethnic group members

Appendix III: Interethnic Contact Intention Scale (General Version)

Instructions: Each statement describes a situation. Please select the number that best matches your likely behavior.

1. If you encounter X ethnic group members, how likely do you think you would chat with them?

2. If you encounter X ethnic group members, would you be interested in chatting with them?
3. If you encounter X ethnic group members, would you want to chat with them?
4. Do you want to interact with X ethnic group members in the future?
5. Have you imagined feeling [positive/negative] in future interactions with X ethnic group members?
6. How important do you think it is to understand X ethnic group members and their issues?
7. How much time would you spend understanding issues faced by X ethnic group members?
8. How important do you think interacting with X ethnic group members is?
9. Would you be willing to join a discussion group with both co-ethnics and X ethnic group members to explore ethnic issues?
10. Would you be willing to participate in a trip visiting X ethnic group residents to learn more about their cultural traditions?

Response scales vary by item (e.g., “Very Unlikely → Very Likely,” “No Interest at All → Very Interested”)

Appendix IV: Item-Level Means and Standard Deviations

[Table of means (SDs) for all 40 items across six samples: S1 Inland Han, S2 Inland Uyghur, S3 Xinjiang Han, S4 Xinjiang Uyghur, S5 Ningxia Han, S6 Ningxia Hui]

Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv –Machine translation. Verify with original.