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Special issue: Prejudice Reduction through Extended and Other Forms of Indirect Contact

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Improving intergroup relations through direct, extended and other forms of indirect contact

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Abstract

The benefits of direct, personal contact with members of another group are well established empirically. This Special Issue complements that body of work by demonstrating the effects of various forms of indirect contact on intergroup attitudes and relations. Indirect contact includes (a) extended contact: learning that an ingroup member is friends with an outgroup member, (b) vicarious contact: observing an ingroup member interact with an outgroup member, and (c) imagined contact: imagining oneself interacting with an outgroup member. The effects of indirect contact not only occur independently of direct contact, they often involve distinct psychological mechanisms. The present article briefly reviews work on direct intergroup contact and then discusses recent theoretical and empirical developments in the study of extended contact, vicarious contact, and imagined contact. We consider the similarities and distinctions in the dynamics of these forms of indirect contact and conclude by identifying promising directions for future research.

Keywords

bias, contact theory, extended contact, imagined contact, intergroup contact, intergroup relations, prejudice reduction, vicarious contact

This Special Issue of *Group Processes & Intergroup Relations* examines how various forms of indirect intergroup contact—including extended, vicarious, and imagined contact—can reduce prejudice and improve relations between groups. The work contained in it is truly international in scope. The authors come from almost a dozen different countries, and participants represent over 30 different nations. The international emphasis is particularly appropriate given the nature of the problem these studies jointly address. Intergroup tension and conflict is ubiquitous. World history has been shaped significantly by armed conflicts between ethnic, national, and religious groups and

their outcomes. Today, there are over 60 United Nations peacekeeping forces deployed around the world to help prevent intergroup tensions from escalating into deadly violence. Prejudice and discrimination based on racial, ethnic, religious, and

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national group membership are pervasive crossculturally, and are inevitable components of such negative intergroup relations, albeit ones that theory and research in social psychology have shown to be tractable. Thus, this Special Issue addresses a timely, but also timeless, question, "How can intergroup bias and conflict be reduced?"

Relations between groups are typically ripe for tension and conflict. Interactions between groups are often characterized by distrust and suspicion (Dovidio, Gaertner, Kawakami, & Hodson, 2002). Indeed, these are realistic concerns: Groups are more greedy and exploitative than are individuals (Insko et al., 2001). Moreover, direct intergroup contact between groups that are defined by competitive relations (Campbell, 1965; Sherif, Harvey, White, Hood, & Sherif, 1961) typically instigates or exacerbates prejudice, discrimination, and conflict. Even when group membership is arbitrarily defined with little consequence beyond the immediate encounter (i.e., minimal groups), people spontaneously evaluate members of their group more favorably (Otten & Wentura, 1999), allocate more resources to members of their group than to members of other groups (Vaughan, Tajfel, & Williams, 1981), and are more helpful toward members of their group (Dovidio, Gaertner, Validzic, Matoka, Johnson, & Frazier, 1997).

Yet, psychologists have long understood that properly structured intergroup contact offers substantial potential for ameliorating intergroup tension, promoting prejudice reduction, and improving intergroup relations. Contact Theory (Allport, 1954; Brown & Hewstone, 2005; Pettigrew, 1998; for a recent review see Tausch & Hewstone, 2010) is one of the most extensively researched frameworks for reducing intergroup bias. This work demonstrates the robust, positive effects that direct intergroup contact can have for improving intergroup relations, especially when contact is structured around Allport's (1954) proposed set of facilitating factors, including equal status contact, cooperative interaction, common goals, and the support of relevant authorities. Both laboratory and field research have yielded substantial documentation of improvement in

intergroup relations associated with intergroup contact in general, and especially when these facilitating factors have been established. Pettigrew and Tropp (2006) have provided an extensive meta-analysis of 515 studies involving 713 independent samples, conducted in a variety of intergroup contexts, testing the effects of intergroup contact on attitudes. Their findings demonstrated that intergroup contact indeed reduces intergroup prejudice (mean r = -.215). Furthermore, Pettigrew and Tropp found that the beneficial effect of contact was greater when Allport's optimal conditions were present in the contact situation than when they were not (mean r = -.29 vs. mean r = -.20).

While direct intergroup contact has proven benefits, its implementation is limited pragmatically. Fortified borders between countries limit productive, direct intergroup contact. For instance, North and South Koreans, who share common history, ethnicity, and language, live in countries that are international adversaries, continuously teetering on the edge of war. Within countries, members of racial, ethnic, and religious groups are frequently segregated residentially, educationally, and occupationally, with limited opportunity for contact. Moreover, even when direct contact is possible, the principles of contact theory involve changing intergroup relations one encounter at a time.

Indirect forms of contact are thus critically important, both practically and theoretically. Practically, indirect contact—for example, in the form of learning that another member of one's group has a close relationship with a member of another group (extended contact) or oneself imagining contact with a member of another group (imagined contact)—can have furtherreaching impact than direct contact. Whereas positive direct intergroup contact can transform the participating individuals' attitudes, one ingroup member's friendship with an outgroup member can have a cascading and almost viral influence as other ingroup members learn of this friendship (or experience contact indirectly). Similarly, positive media portrayals of interactions and relations between ingroup and outgroup

members (parasocial contact; Schiappa, Gregg, & Hewes, 2005) can potentially change the intergroup orientations of millions of viewers, including and perhaps especially those whose opportunities for intergroup contact are rare.

Nevertheless, despite their enormous practical and theoretical potential, studies of indirect forms of contact are still surprisingly rare. Pettigrew and Tropp (2008) identify 750 published and unpublished studies that meet the criteria they outlined for meta-analytically testing the effects of direct intergroup contact on prejudice reduction. But they specifically excluded studies of extended or indirect contact from consideration from their meta-analysis, because their criteria for consideration required that studies had to involve "actual face-to-face interaction between members of clearly defined groups" (p. 754). In contrast, there are fewer than 20 published studies of the distinct effects of extended contact while controlling for direct contact, and fewer than 10 empirical papers on the effects of imagined contact. The present Special Issue was therefore intended to encourage research on this topic, facilitate theoretical integration, and draw attention to new developments in this area and their important implications.

In this introductory article, we attempt to provide a background and structure for the different empirical papers represented within this Special Issue. We first briefly review the history of contact theory and discuss recent developments in the study of direct intergroup contact. Then, we discuss extended contact effects, describing the seminal findings, as well as new results and conceptual perspectives. Within this section, we also review the six empirical studies of extended contact within this Special Issue, highlighting their novel contributions to this literature. Then, in the next two sections, we review two other forms of indirect contact, vicarious contact and imagined contact. We discuss the papers in this Special Issue that address these topics, and we consider the similarities and distinctions among extended contact, vicarious contact, and imagined contact. We conclude our paper by briefly summarizing the contributions collectively of the articles in

this Special Issue to an understanding of the dynamics of indirect forms of contact and identifying promising directions for future research.

Contact Theory: Foundation and recent developments

Intergroup contact has long been recognized as one of psychology's most promising and effective strategies for improving intergroup relations and reducing bias and conflict. Although Gordon Allport (1954) is commonly credited with introducing the Contact Hypothesis in his classic book, The Nature of Prejudice, the idea that intergroup contact could reduce bias was already in the literature by the mid-1930s (Horowitz, 1936; Zeligs & Hendrickson, 1933). Moreover, in the late 1940s, Williams (1947), a prominent sociologist, outlined a number of propositions and testable hypotheses about techniques for improving intergroup relations, including the specific observation that 'lessened hostility will result from arranging intergroup collaboration, on the basis of personal association of individuals as functional equals, on a common task jointly accepted as worth while' (p. 69).

Allport's version of the contact hypothesis built on these ideas with the fundamental premise that although contact between groups is not automatically sufficient to improve intergroup relations, it can substantially reduce intergroup prejudice when certain features characterize the intergroup contact situation: (a) equal status within the contact situation; (b) intergroup cooperation; (c) common goals; and (d) support of authorities, law, or custom. Since then two other aspects of contact have been identified as particularly important: opportunities for personal acquaintance between the members (particularly involving nonstereotypic elements; Cook, 1985), and, building on this, intergroup friendships (Pettigrew, 1997, 1998). Decades of research that followed demonstrated the robustness of intergroup contact for reducing bias, particularly when these key conditions are met (Pettigrew & Tropp, 2006, 2008).

Beginning in the 1980s, however, attention has focused increasingly on *how* intergroup contact

reduced bias (see Tausch & Hewstone, 2010). Researchers identified both cognitive and affective processes as potential candidates. Cognitively, although greater knowledge of the other group had only limited impact in reducing bias (Pettigrew & Tropp, 2008; but also see Eller & Abrams, 2003, 2004), the manner in which contact changed the ways people socially categorized others and perceived the relationship between these categories played a pivotal role in improving intergroup attitudes (Brown & Hewstone, 2005; Gaertner & Dovidio, 2009; Miller, 2002). Affectively, reductions in intergroup anxiety and threat (Stephan & Stephan, 2000) and increases in empathy for members of the other group (Pettigrew & Tropp, 2008; Swart, Hewstone, Christ, & Voci, 2010) were critical processes for improving intergroup relations.

In addition to exploring how contact works, contact research during the 1990s also focused on when contact worked best. Research demonstrated that the effects of contact were more strongly generalized from individual outgroup members to the outgroup as a whole when social categorizations were salient during contact (see Brown & Hewstone, 2005, for a review). Contact was also more effective when it led to a perceived 'common ingroup identity' among participants of ostensibly distinct groups (see Gaertner & Dovidio, 2000, for a review).

Notwithstanding the substantive achievements of the vast body of research on direct intergroup contact, especially its attention to mediating and moderating mechanisms, the empirical focus of the work was specifically on the direct, personal experience of intergroup contact. As the end of the 20th century approached, however, a new perspective was introduced.

Extended contact

The 'extended contact hypothesis,' first proposed by Wright, Aron, McLaughlin-Volpe, and Ropp (1997), presented the idea that the mere knowledge that an ingroup member has a close, positive relationship with an outgroup member can reduce intergroup bias. In their paradigmatic work, Wright et al. reported correlational evidence that people who knew that an ingroup member had an outgroup friend had less negative attitudes, and they demonstrated experimentally that providing this information created more positive intergroup attitudes. Furthermore, the beneficial effects of knowledge of an ingroup member's close relationship with an outgroup member—the extended contact effect—had positive effects on intergroup attitudes over and above the influence of direct intergroup contact. Subsequent research replicated and expanded these effects of extended contact, exploring both mediating and moderating processes (see Turner, Hewstone, Voci, Paolini, & Christ, 2007, for a review). The papers on extended contact in this Special Issue take the research literature forward in several significant ways.

Research on extended contact expanded the theoretical landscape for contact and intergroup relations. Although the processes hypothesized to underlie extended contact effects may overlap with those relating to direct contact, such as reduced anxiety, threat, and negative expectations (see Mallett & Wilson, 2010), they also involve unique elements. These processes emphasize the social nature of intergroup attitudes. For instance, Wright et al. proposed that learning of an ingroup member's close relationship with an outgroup member can lead to greater inclusiveness in one's self-concept (inclusion of others in the self; Aron, Aron, Tudor, & Nelson, 1991) by association: "my friend's friend is my friend." Such knowledge can also change perceptions of ingroup norms about the outgroup, as well as of outgroup norms toward the ingroup. Moreover, to the extent that people adhere more strongly to group norms when they think of themselves as members of the ingroup (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), salient ingroup identity can promote, rather than impede, positive intergroup relations when people perceive the ingroup norm as inclusive and accepting of outgroup members. Several of the papers in this Special Issue demonstrate that extended contact has positive effects on intergroup attitude beyond

the influence of direct contact and illuminate the dynamics of extended contact. The paper by Gómez, Tropp, and Fernández, "When extended contact opens the door to future contact: Testing the effects of extended contact on attitudes and intergroup expectancies among majority and minority groups," reveals that several of the factors hypothesized to mediate the effects of extended contact do so in concert. Specifically, these researchers found that the extended contact effect on both attitudes and intergroup expectancies was mediated, for both majority (Spanish) and minority (immigrant) samples, by perceived ingroup norms, perceived outgroup norms, and greater inclusion of the other in the self. Moreover, Gómez et al. found that the effects of direct contact on improving intergroup attitudes were weaker for minority-group than majoritygroup members (a typical finding; see, for example, Binder et al., 2009; Tropp & Pettigrew, 2005). However, the effects of extended contact were equally strong for majority and minority groups. This finding has valuable practical, as well as theoretical, implications.

In their article, "Two degrees of separation: A (one-year) longitudinal study of actual and perceived extended international contact," Eller, Abrams, and Zimmermann investigated the impact of extended contact over time on friends of college students from 30 countries who spent a year at British universities. The longitudinal design of this study, which permitted tests of changes in intergroup orientations, also yielded notable support for extended contact effects. Extended contact led to lower perceived ignorance about the outgroup, greater awareness of more positive outgroup behavior, greater inclusion of the other in the self, and more positive general outgroup evaluation. Similar to the Gómez et al. study, however, reduced anxiety did not play as strong or as consistent a role relative to the other mediators. Although other studies have reported evidence that extended contact improves attitudes via reduced anxiety (see Paolini, Hewstone, Cairns, & Voci, 2004), Eller et al.'s results suggest an interesting contrast to the work on direct contact, in which reduced

intergroup anxiety tends to be *the* strongest mediator (see Pettigrew & Tropp, 2008). Importantly, and even when controlling for incidental variation in direct contact, Eller et al. found an impressive number of theory-consistent significant relationships, and this was true both when extended contact was operationalized in terms of the actual experiences of the international students and through the perceptions of that contact among the home-based friends.

Cameron, Rutland, and Hossain, in their paper, "When and why does extended contact work? The role of high quality direct contact and group norms in the development of positive ethnic intergroup attitudes among children" provide complementary quasi-experimental evidence of the benefits of extended contact for intergroup relations. Specifically, these researchers developed and tested an intervention with children 6-11 years old. The intervention involved reading stories that portrayed friendships between ethnic majority and minority (Indian) children. In some of the stories the superordinate (school) category membership of the characters was salient (common in-group identity), whereas in other stories the protagonists' superordinate and subgroup identities were made salient (dual identity). Children in a control group were not exposed to these stories. Overall, extended contact, represented by the intervention, promoted more positive attitudes toward minority children compared to the control condition, and these effects occurred independently of the participating children's direct, personal contact with the group. In addition, the two forms of the intervention (emphasis on superordinate or dual identity) were equally effective. This study thus offers causal, converging evidence of the influence of extended contact, over and above direct contact, but it also raises some intriguing questions about how and when perceptions of outgroup norms may be more important than perceptions of ingroup norms.

Whereas much of the research on direct contact effects has focused on the common processes that generally lead to more positive intergroup attitudes, two of the papers in this Special Issue consider the influence of individual

differences as moderators of extended contact effects. Drawing on previous research indicating that extended contact improves intergroup attitudes in part by changing perceptions of ingroup norms (Turner, Hewstone, Voci, & Vonofakou, 2008; as the paper by Gómez et al. in this Special Issue also shows), Sharp, Voci, and Hewstone tested whether individual differences in sensitivity to normative forces uniquely influence the impact of knowledge that an ingroup member is friends with an outgroup member on intergroup attitudes. Specifically, Sharp et al. studied differences in public self-consciousness and social comparison in their article, "Individual difference variables as moderators of the effect of extended cross-group friendship on prejudice: Testing the effects of public self-consciousness and social comparison." These authors found that, when considered simultaneously, social comparison moderated the effects of extended contact as predicted: White, heterosexual participants with stronger social comparison tendencies exhibited stronger positive extended contact effects involving both Asian and gay target groups. However, public self-consciousness did not play a significant role beyond social comparison. It is likely that, because extended contact effects require a strong "other focus," individual differences that reflect greater attunement to what others think, feel, and do (such as social comparison) may be more influential than those that may reflect a focus on the self more directly (such as measures of self-consciousness).

As we have seen thus far, the knowledge that an ingroup member has an outgroup friend allays concerns about outgroup threat, changes intergroup expectations from negative to positive, and alters perceptions of ingroup norms in more inclusive ways. Given the key role of perceived threat in theory and research on authoritarianism, individual differences in authoritarianism, which have been shown to be important in direct contact effects (Dhont & Van Hiel, 2009), may also have unique effects for extended contact (see also Hodson, Harry, & Mitchell, 2009). One of the key elements of Right-Wing Authoritarianism (Altemeyer, 1998) is strict adherence to

conventional norms and values (conventionalism). The work by Dhont and Van Hiel in this Special Issue, "Direct contact and authoritarianism as moderators between extended contact and reduced prejudice: Lower threat and greater trust as mediators," tested (a) whether authoritarianism among a representative sample of Dutch people moderated the impact of extended contact, and (b) whether this effect was mediated by threat and trust. As they predicted, Dhont and Van Hiel found that participants higher in authoritarianism showed stronger positive extended contact effects on intergroup attitudes, particularly when they had relatively low levels of direct, personal intergroup contact. These positive effects were mediated by lower feelings of threat and greater trust of outgroup members.

Whereas Dhont and Van Hiel studied threat and trust as mediators of extended contact effects on more positive outgroup attitudes, increased trust and reduced threat may be important outcomes in their own right. Threat appears to be a critical factor that may not only contribute to negative intergroup attitudes (Riek, Mania, & Gaertner, 2006), but may also directly shape intergroup behavior and discrimination (Blascovich, Mendes, & Seery, 2002). Feelings of threat can produce a prevention (versus promotion) focus for intergroup interaction (Plant, Devine, & Peruche, 2010), which leads to avoidance of personal contact (Plant & Devine, 2003), negatively biased expectations and interpretations for such interaction (Hugenberg & Bodenhausen, 2004), and behaviors that may, often without intention, convey impressions that exacerbate intergroup tension and conflict (Dovidio et al., 2002).

In contrast to the considerable interest in the role of threat in intergroup relations (see Stephan & Stephan, 2000), relatively less attention has been devoted to the influence of intergroup trust or mistrust on intergroup relations. Although trust is not synonymous with ingroup favoritism, these concepts appear rooted in similar processes (Yamagishi & Kiyonari, 2000). People tend to trust others when they are identified as members of their own group, particularly in Western cultures (Foddy, Platow, & Yamagishi, 2009; Yuki,

Maddux, & Brewer, 2005), and they tend to distrust others who are seen as members of other groups (Insko & Schopler, 1998). Particularly for forms of intergroup bias in which overt expressions of bias are at odds with strong egalitarian norms (as with race relations in the United States), intergroup mistrust may be a more potent factor determining the course of intergroup relations than expressions of intergroup attitudes (Dovidio et al., 2008).

Tausch, Hewstone, Schmid, Hughes, and Cairns' article in this Special Issue, "Extended contact effects as a function of closeness of relationship with ingroup contacts," advances work on extended contact in two fundamental ways. Tausch et al. demonstrated that, for Catholic and Protestant survey respondents in Northern Ireland, knowledge of friendship between an ingroup and an outgroup member more effectively reduced prejudice when there was greater intimacy between the participant and the other ingroup member (e.g., when the ingroup member was a friend or family member). But relationships typically thought of as less close (e.g., ingroup neighbors who have outgroup friends) can also exert impact via extended contact, especially when those others are perceived as closer by the perceiver. Thus, who the ingroup member was mattered substantially. In addition, trust was a primary outcome of interest. In fact, the results were stronger and more consistent for intergroup trust than for intergroup attitudes. These findings thus complement previous work on extended contact. As Tausch et al. explain, "Trust is a key concept for peace building as, once established, it facilitates the achievement of mutually beneficial outcomes."

Taken together, the six empirical papers in this Special Issue that have a specific focus on extended contact offer significant advances in the study of intergroup relations. Most basically, they add substantially to the weight of evidence demonstrating the unique effects of extended contact, knowledge that an ingroup member has a close relationship with an outgroup member, independent of the effects of direct, personal contact. Even more importantly, these studies

increase understanding of how, when, and for whom extended contact operates most effectively. This information is not only critical for building and expanding theory for extended contact, but it can also guide practical interventions for improving relations across national boundaries (see Eller et al.), between groups in long-term conflict (see Tausch et al.), toward members of stigmatized groups (Sharp et al.), and between groups forming new relationships (e.g., members of host countries and immigrant groups; see Dhont et al. and Gómez et al.). However, the Special Issue is not restricted to extended contact. Other papers take steps beyond the boundaries of the extended contact paradigm to explore other forms of indirect contact, namely vicarious contact and imagined contact.

Vicarious contact

Perhaps spurred by the interest in extended contact, an increasing number of studies have begun to examine a variety of other "nondirect" forms of contact. Some of these studies integrate the ideas of extended contact with general principles social learning theory (Bandura, 1986). Observing the actions of another person, particularly someone with whom one identifies, can influence perceptions of how one should perform and/or expand one's personal knowledge and repertoire about how one can behave. It can inhibit or disinhibit existing inclinations or help people acquire new knowledge, understanding, and skill. As Mutz and Goldman (2010) observe in their review of the literature on mass media effects on prejudice, television, radio, and the internet are primary sources of information for impressions that ingroup members may have of other social groups.

Portrayals of intergroup relations on television can influence the attitudes of vast number of viewers, often without their conscious awareness. Schiappa et al. (2005), for example, showed that viewing television programs that portrayed positive intergroup contact was associated with lower levels of prejudice. In contrast, seeing subtle negative nonverbal expressions of bias expressed by

white television characters toward black characters increased white viewers' biases toward blacks generally (Weisbuch, Pauker, & Ambady, 2009). In addition, 5–10-year-old children who read stories featuring friendships between non-disabled and disabled children displayed more positive attitudes and intended behavior toward children (Cameron & Rutland, 2006).

The dynamics of media effects appear to overlap to some extent with those underlying direct contact and, particularly, extended contact. For example, exposure to pictures and visual portrayals can alter the way children socially categorize others, changing the focus from ingroup-outgroup ("we" and "they") to a more inclusive perception ("us"; Houlette, Gaertner, Johnson, Banker, Riek, & Dovidio, 2004). It can also influence, as conventional extended contact does, perceptions of ingroup and outgroup norms and facilitate positive expectancies for future intergroup interaction.

Mazziotta, Mummendey, and Wright's article in this Special Issue relies heavily on social learning theory to derive its hypotheses. Viewing (as opposed to merely knowing about) a positive interaction between an ingroup member and an outgroup member constitutes vicarious intergroup contact, and it produced, as predicted, more positive intergroup attitudes than did control conditions. Furthermore, consistent with the hypothesized processes, the impact of vicarious contact on favorable attitudes was mediated by reduced uncertainty and greater feelings of self-efficacy for future interactions involving the self (see also Mallett & Wilson, 2010). Mazziotta and colleagues argue that research on vicarious contact expands prior work on indirect contact by integrating relevant specific processes for intergroup relations with general social-cognitive principles of learning.

The question of how distinct the dynamics of vicarious contact are from those of extended contact is a productive avenue for future research to pursue. Nevertheless, the theoretical and empirical case for attending to the general principles of social learning for understanding how different forms of indirect contact operate is persuasive. The literature on social learning theory, for example, converges with the emphasis of previous

research on extended contact on the importance of perceived intergroup norms.

Although perceptions of ingroup norms can lead to more positive attitudes toward an outgroup, these normative perceptions can also have more immediate effects on intergroup relations. While it may be valuable to focus primarily on changing personal attitudes, which are presumed to be relatively stable across conditions, to improve intergroup relations, intergroup attitudes are only a modest predictor of discriminatory behavior (see Dovidio, Brigham, Johnson, & Gaertner, 1996; Talaska, Fiske, & Chaiken, 2008). Moreover, there is often a "principleimplementation gap" (Dixon, Durrheim, & Tredoux, 2007), in which positive attitudes do not translate directly into action to improve intergroup equity. Thus, under some conditions, such as when negative intergroup attitudes are strongly crystallized and habitually (and often unconsciously) activated (Dovidio, Kawakami, & Beach, 2001; Greenwald, Poehlman, Uhlmann, & Banaji, 2009), or intergroup conflict is recent or ongoing, it may be more practical, and ultimately more effective, to change normative perceptions rather than attempt to change personal attitudes. Paluck (2009), for example, demonstrated that exposure to a radio soap opera featuring positive intergroup contact between Hutus and Tutsis and supportive messages promoting constructive intergroup relations did not significantly change listeners' personal beliefs, but it did alter their perceptions of normative relations between the groups and guided appropriate intergroup behavior. Changing intergroup behavior in ways that enhance outcomes can then, over the longerterm, change intergroup attitudes, as well. Indeed, changing perceptions of intergroup norms may represent a more efficient way to promote positive relations between groups than targeting attitudes, which may be deeply embedded in personal experiences and long-term socialization.

Imagined contact

It is also important to distinguish different forms of nondirect contact from one another, particularly

in terms of their underlying processes. Whereas extended and vicarious contact involve the knowledge or observation of other ingroup members interacting with an outgroup member, imagined contact (see Turner, Crisp, & Lambert, 2007) is an indirect form of contact that involves the self directly. It is the "mental simulation of a social interaction with a member or members of an outgroup category" (Crisp & Turner, 2009, p. 234). In their article in this Special Issue, 'Attributional processes underlying imagined contact effects,' Crisp and Husnu observe, "Herein lies the key conceptual distinction. . . . Imagined contact is indirect in the sense that no actual contact occurs, but it does involve an interaction that takes place between the self and an outgroup. . . . In this sense, imagined contact is more similar to actual contact . . . than [is] extended contact."

The positive effects of imagined contact have now been demonstrated across several experiments involving various outgroups. Imagined contact reduces bias toward elderly persons and gay men (Turner et al., 2007) and leads to more positive perceptions of the attributes of other ethnic and national groups (Husnu & Crisp, 2010; Stathi & Crisp, 2008). Indeed, like extended contact, recent work has also demonstrated that imagined contact can eliminate stereotype threat among elderly people (Abrams, Crisp, Marques, Fagg, Bedford, & Provias, 2008; see also Abrams, Eller, & Bryant, 2006).

Previous work on imagined contact has identified two key elements necessary to achieve positive impact on intergroup relations (Crisp & Turner, 2009). First, participants must actively engage in mental simulation of the contact experience. Second, the imagined contact must be positive. Less fully delineated, however, are the mediating mechanisms. Like direct contact, imagined contact is effective, at least in part, because it reduces anxiety associated with intergroup contact (Turner et al., 2007). The Crisp and Husnu article in the present Special Issue identifies another mechanismthe causal attributions that people make after imagining themselves engaging in positive intergroup contact. Specifically, participants who imagined themselves interacting positively with an outgroup

member showed more positive attitudes toward the outgroup, particularly when they adopted a third-person perspective that promoted internal attributions for their actions.

Conclusion

In summary, indirect contact includes a range of different types of activities. It involves learning that an ingroup member has a friend in the outgroup (extended contact), being exposed to members of the ingroup and outgroup interacting in fictitious media portrayals (parasocial contact), observing the interaction of another ingroup member interacting with an outgroup member (vicarious contact), or imagining oneself engaging in positive intergroup contact (imagined contact). Although much of the research on indirect contact, like that on direct contact, has focused on intergroup attitudes as the outcome of interest, indirect contact can have broad effects, such as reducing intergroup threat, increasing intergroup understanding and trust, and reducing the experience of stereotype threat (see Crisp & Turner, 2009).

The effectiveness of extended contact for improving various elements necessary for favorable intergroup relations is now well established. Six of the articles in this Special Issue add substantially to the weight of evidence demonstrating its effectiveness. These papers, together with the articles on vicarious contact and imagined contact in the Special Issue, also recognize the importance of understanding the psychological mechanisms that underlie the impact of indirect contact on intergroup orientations. Some mechanisms, such as the reduction of anxiety, are similar to those that are critical to the effectiveness of direct contact. However, other mechanisms appear more intervention-specific. For example, perceptions of ingroup and outgroup norms play an important role in extended contact effects, whereas causal attributions for one's behavior are more influential for the impact of imagined contact.

One potential difference between contact directly implicating the self (i.e., direct and imagined contact) and indirect contact in which another ingroup member's contact is central (extended contact and vicarious contact) involves the extent to which intra-individual or social responses are more influential. For instance, intraindividual influences, such as reductions in anxiety and increases in the experience of empathy, play a particularly important role in direct contact effects (Pettigrew & Tropp, 2008). Perceptions of social norms, both ingroup and outgroup norms, are much more influential mediators of the effect of extended contact and other forms of indirect contact. Of course, the effects of indirect contact also involve intra-individual processes, such as increasing inclusion of the other in the self, reducing uncertainty and anxiety, and reducing ignorance of the other group. However, they further involve a strong social component, relating to compliance with and internalization of group norms. Thus, examining the role of different underlying mechanisms can help identify the dynamics of different forms of direct and indirect contact and illuminate the extent to which they represent distinct phenomena.

Future research might productively pursue, and possibly question, this apparent distinctiveness in mechanisms between intergroup contact directly involving the self and contact by other ingroup members. It is quite possible, for example, that norms may be an important mechanism for direct contact as well; it may just be that this mechanism has received only limited attention in research guided by Contact Theory. Indeed, as we noted earlier, from its inception, Contact Theory has identified "support of authorities, law, or custom" as a key facilitating factor. However, compliance with or internalization of related norms has rarely been studied as a mediator of direct contact effects. Similarly, whereas parasocial and vicarious contact may not only relieve uncertainty but may also illustrate how to interact effectively with an outgroup member, the effects of feelings of efficacy and actual prior experience with outgroup members might play an important but previously unrecognized role in the consequences of direct contact on intergroup attitudes. People who feel or are more skilled in intergroup interaction may find new intergroup interactions more

rewarding, accelerating reductions in intergroup bias.

Another fertile direction for future research is to investigate the role of group status and power in indirect contact effects. In his version of the Contact Hypothesis, Allport (1954) prescribed "equal status within the contact situation" as a key dimension of the intergroup context for direct contact to reduce bias. However, relative group status and power have not yet received sustained attention as factors in research on indirect contact effects. Practically, this facet of indirect contact is important: It may be difficult to constrain how people learn that an ingroup member has an outgroup friend, and intergroup interaction rarely occurs between groups equivalent in social power. Understanding the influence of relative group status might also provide insight into when the perception of the ingroup's norm or the outgroup's norm is the more important mechanism underlying indirect contact effects. Whereas people may generally attend more to ingroup than outgroup norms and have a deeper knowledge of ingroup norms, they may be more responsive to the norms of a more powerful outgroup.

Collectively, then, the articles in this Special Issue represent a substantial general contribution to the study of intergroup relations, and a more specific one to the study of how prejudice can be reduced. The articles make a clear contribution by documenting the systematic influence of indirect forms of contact for improving intergroup orientations. However, beyond adding importantly to the weight of evidence indicating the effects of indirect contact, over and above the influence of direct contact, they illuminate the underlying mechanisms that account for these effects. Together, these findings make an important contribution not only in distinguishing different types of contact, but also in promoting the development of an integrated contact model, involving both direct and indirect contact and studying a range of different mechanisms, moderating factors, and outcomes. The articles in this Special Issue are valuable for the questions they answer, but ultimately they may be even more important for expanding the field's perspectives

on intergroup contact and identifying promising new research questions to ask.

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On a personal level, we have produced this Special Issue against considerable personal odds. During it, we have dealt with two cases of parental cancer, two deaths in our close families, and one pregnancy (whose due date coincided with the due date of the Special Issue). We would like to dedicate this Special Issue to these loved ones in our past, present, and future: Alison and Michael Dovidio; Ann Eller, Luna Anaïs Arditi-Eller, and Nessim Arditi†; and Audrey† and Ron Hewstone.

On a lighter note, we worked together across three countries (UK, US, Mexico) and time zones and thus managed to find a way to work on the Special Issue virtually 24 hours a day. It has been fun!

References

- Abrams, D., Crisp, R. J, Marques, S., Fagg, E., Bedford, L, & Provias, D. (2008). Threat inoculation: Experienced and imagined intergenerational contact prevent stereotype threat effects on older people's math performance. *Psychology and Aging*, 23, 934–939.
- Abrams, D., Eller, A., & Bryant, J. (2006). An age apart: The effects of intergenerational contact and stereotype threat on performance and intergroup bias. *Psychology and Aging*, 21, 691–702.
- Allport, G. W. (1954). The nature of prejudice. Cambridge, MA: Addison-Wesley.
- Altemeyer, R. (1998). The other 'authoritarian personality'. In M. P. Zanna (Ed.), Advances in experimental social psychology (Vol. 30, pp. 47–91). San Diego, CA: Academic Press.
- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including the other in the self. *Journal of Personality and Social Psychology*, 60, 241–253.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.
- Binder, J., Zagefka, H., Brown, R., Funke, F., Kessler, T., Mummendey, A., Leyens, J.-P. (2009). Does

- contact reduce prejudice or does prejudice reduce contact? A longitudinal test of the contact hypothesis among majority and minority groups in three European countries. *Journal of Personality and Social Psychology*, 96, 843–856.
- Blascovich, J., Mendes, W. B., & Seery, M. D. (2002). Intergroup encounters and threat: A multi-method approach. In D. M. Mackie & E. R. Smith (Eds.), From prejudice to intergroup emotions: Differentiated reactions to social groups (pp. 89–109). New York, NY: Psychology Press.
- Brown, R., & Hewstone, M. (2005). An integrative theory of intergroup contact. In M. P. Zanna (Ed.), Advances in experimental social psychology (Vol. 37, pp. 255–343). San Diego, CA: Academic Press.
- Cameron, L., & Rutland, A. (2006). Extended contact through story reading in school: Reducing children's prejudice towards the disabled. *Journal of Social Issues*, 62, 469–488.
- Campbell, D. T. (1965). Ethnocentric and other altruistic motives. In D. Levine (Ed.), Nebraska symposium on motivation (Vol. 13, pp. 283–311). Lincoln, NE: University of Nebraska Press.
- Cook, S. W. (1985). Experimenting on social issues: The case of school desegregation. *American Psychologist*, 40, 452–460.
- Crisp, R. J., & Turner, R. N. (2009). Can imagined interactions produce positive perceptions? *American Psychologist*, 64, 231–240.
- Dhont, K., & Van Hiel, A. (2009). We must not be enemies: Interracial contact and the reduction of prejudice among authoritarians. *Personality and Individual Differences* 46, 172–177.
- Dixon, J. A., Durrheim, K. & Tredoux, C. (2007). Intergroup contact and attitudes toward the principle and practice of racial equality. *Psychological Science*, 18, 867–872.
- Dovidio, J. F., Brigham, J. C., Johnson, B. T., & Gaertner, S. L. (1996). Stereotyping, prejudice, and discrimination: Another look. In C. N. Macrae, M. Hewstone, & C. Stangor (Eds.), Foundations of stereotypes and stereotyping (pp. 276–319). New York, NY: Guilford.
- Dovidio, J. F., Gaertner, S. L., Kawakami, K., & Hodson, G. (2002). Why can't we just get along? Interpersonal biases and interracial distrust. *Cultural Diversity & Ethnic Minority Psychology*, 8, 88–102.

- Dovidio, J. F., Gaertner, S. L., Validzic, A., Matoka, K., Johnson, B., & Frazier, S. (1997). Extending the benefits of re-categorization: Evaluations, selfdisclosure and helping. *Journal of Experimental Social Psychology*, 33, 401–420.
- Dovidio, J. F., Kawakami, K., & Beach, K. R. (2001). Implicit and explicit attitudes: Examination of the relationship between measures of intergroup bias. In R. Brown & S. L. Gaertner (Eds.), Blackwell Handbook of Social Psychology (Vol. 4, Intergroup Relations, pp. 175–197). Oxford: Blackwell.
- Dovidio. J. F., Gaertner, S. L., John, M. S., Halabi, S., Saguy, T., Pearson, A. R., & Riek, B. M. (2008). Majority and minority perspectives in intergroup relations: The role of contact, group representation, threat, and trust in intergroup conflict and reconciliation. In A. Nadler, T. Malloy, & J. D. Fisher (Eds.), Social psychology of intergroup reconciliation (pp. 227–253). New York, NY: Oxford University Press.
- Eller, A., & Abrams, D. (2003). 'Gringos' in Mexico: Cross-sectional and longitudinal effects of language school-promoted contact on intergroup bias [Special Issue on Intergroup Contact]. *Group* Processes & Intergroup Relations, 6, 55–75.
- Eller, A., & Abrams, D. (2004). Come together: Longitudinal comparisons of Pettigrew's reformulated intergroup contact model and the Common Ingroup Identity Model in Anglo-French and Mexican-American contexts. European Journal of Social Psychology, 34(3), 229–256.
- Foddy, M., Platow, M. J., & Yamagishi, H. (2009). Group-based trust in strangers: The role of stereotypes and expectations. *Psychological Science*, 20, 419–422.
- Gaertner, S. L., & Dovidio, J. F. (2000). Reducing intergroup bias: the Common Ingroup Identity Model. Philadelphia, PA: The Psychology Press.
- Gaertner, S. L., & Dovidio, J. F. (2009). A Common Ingroup Identity: A categorization-based approach for reducing intergroup bias. In. T. Nelson (Ed.), *Handbook of prejudice*. (pp. 489–506). New York, NY: Psychology Press.
- Greenwald, A. G., Poehlman, T. A., Uhlmann, E., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, 97, 17–41.

- Hodson, G., Harry, H., & Mitchell, A. (2009). Independent benefits of contact and friendship on attitudes toward homosexuals among authoritarians and highly identified heterosexuals. *European Journal of Social Psychology*, 39, 509–525.
- Horowitz, E. L. (1936). The development of attitude toward the Negro. Archives of Psychology (Columbia University), No. 194, 47.
- Houlette, M., Gaertner, S. L., Johnson, K. M., Banker, B. S., Riek, B. M., & Dovidio, J. F. (2004). Developing a more inclusive social identity: An elementary school intervention. *Journal of Social Issues*, 60, 35–56.
- Hugenberg, K., & Bodenhausen, G. V. (2004). Ambiguity in social categorization: The role of prejudice and facial affect in race categorization. *Psychological Science*, 15, 342–345.
- Husnu, S., & Crisp, R. J. (2010). Imagined intergroup contact: A new technique for encouraging greater inter-ethnic contact in Cyprus. Peace & Conflict: Journal of Peace Psychology, 16, 97–108.
- Insko, C. A., & Schopler, J. (1998). Differential distrust of groups and of individuals. In C. Sedikides, J. Schopler, & C. A. Insko (Eds.), *Intergroup cognition and intergroup* behavior (pp. 75–107). Hillsdale, NJ: Erlbaum.
- Insko, C. A., Schopler, J., Gaertner, L., Wildschut, T., Kozar, R., Pinter, B., Montoya, M. R. (2001). Interindividual-intergroup discontinuity reduction through the anticipation of future interaction. *Journal of Personality and Social Psychology*, 80, 95–111.
- Mallett, R. K., & Wilson, T. D. (2010). Increasing positive intergroup contact. *Journal of Experimental Social Psychology*, 46, 382–387.
- Miller, N. (2002). Personalization and the promise of Contact Theory. *Journal of Social Issues* 58, 387–410.
- Mutz, D. C., & Goldman, S. K. (2010). Mass media. In J. F. Dovidio, M. Hewstone, P. Glick, & V. M. Esses (Eds.), Handbook of prejudice, stereotyping, and discrimination (pp. 241–258). London: Sage.
- Otten, S., & Wentura, D. (1999). About the impact of automaticity in the Minimal Group Paradigm: Evidence from affective priming tasks. European Journal of Social Psychology, 29, 1049–1071.
- Paolini, S., Hewstone, M., Cairns, E., & Voci, A. (2004). Effects of direct and indirect cross-group friendships on judgments of Catholics and Protestants in Northern Ireland: The mediating role of an

- anxiety-reduction mechanism. *Personality and Social Psychology Bulletin*, 30, 770–786.
- Paluck, E. L. (2009). Reducing intergroup prejudice and conflict using the media: A field experiment in Rwanda. Journal of Personality and Social Psychology, 96, 574–587.
- Pettigrew, T. F. (1997). Generalized intergroup contact effects on prejudice. *Personality and Social Psychology Bulletin*, 23, 173–185.
- Pettigrew, T. F. (1998). Intergroup contact theory. Annual Review of Psychology, 49, 65–85.
- Pettigrew, T. F., & Tropp, L. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality* and Social Psychology, 90, 751–783.
- Pettigrew, T. F., & Tropp, L. R. (2008). How does contact reduce prejudice? A meta analytic test of three mediators. European Journal of Social Psychology, 38, 922–934.
- Plant, E. A., & Devine, P. G. (2003). The antecedents and implications of interracial anxiety. *Personality* and Social Psychology Bulletin, 29, 790–801.
- Plant, E. A., Devine, P. G., & Peruche, M. B. (2010). Routes to positive interracial interactions: Egalitarianism or avoiding prejudice. *Personality and Social Psychology Bulletin*, 36, 1135–1147.
- Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup threat and outgroup attitudes: A metaanalytic review. *Personality and Social Psychology Review*, 10, 336–353.
- Schiappa, E., Gregg, P. B., & Hewes, D. E. (2005). The parasocial contact hypothesis. *Communication Monographs*, 72, 92–115.
- Sherif, M., Harvey, O. J., White, B. J., Hood, W. R., & Sherif, C. W. (1961). Intergroup conflict and cooperation: The Robbers Cave experiment. Norman, OK: University of Oklahoma Book Exchange.
- Stathi, S., & Crisp, R. J. (2008). Imagining intergroup contact promotes projection to outgroups. *Journal* of Experimental Social Psychology, 44, 943–947.
- Stephan, W. G., & Stephan C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), Reducing prejudice and discrimination (pp. 23–45). Hillsdale, NJ: Erlbaum.
- Swart, H., Hewstone, M., Christ, O., & Voci, A. (2010). The impact of cross-group friendships in South Africa: Affective mediators and multigroup comparisons. *Journal of Social Issues*, 66, 309–333.

- Talaska, C. A., Fiske, S. T., & Chaiken, S. (2008). Legitimating racial discrimination: Emotions, not beliefs, best predict discrimination in a metaanalysis. Social Justice Research, 21, 263–296.
- Tausch, N., & Hewstone, N. (2010). Intergroup contact.
 In J. F. Dovidio, M. Hewstone, P. Glick, & V. M. Esses (Eds.), Handbook of prejudice, stereotyping, and discrimination (pp. 544–560). London: Sage.
- Tropp, L. R., & Pettigrew, T. F. (2005). Relationship between intergroup contact and prejudice among minority and majority status groups. *Psychological Science* 16, 951–957.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). Rediscovering the social group: A self-categorization theory. Oxford: Basil Blackwell.
- Turner, R. N., Crisp, R. J., & Lambert, E. (2007). Imagining intergroup contact can improve intergroup attitudes. Group Processes & Intergroup Relations, 10, 427–441.
- Turner, R. N., Hewstone, M., Voci, A., Paolini, S., & Christ, O. (2007). Reducing prejudice via direct and extended cross-group friendship. In W. Stroebe & M. Hewstone (Eds.), European review of social psychology (Vol. 18, pp. 212–255). Hove: Psychology Press.
- 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 and Social Psychology*, 95, 843–860.
- Vaughan, G. M., Tajfel, H., & Williams, J. (1981). Bias in reward allocation in an intergroup and an interpersonal context. Social Psychology Quarterly, 44, 37–42.
- Weisbuch, M., Pauker, K., & Ambady, N. (2009). The subtle transmission of race bias via televised non-verbal behavior. *Science*, 326, 1711–1714.
- Williams, R. M. Jr. (1947). The reduction of intergroup tensions. New York, NY: Social Science Research Council.
- 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.
- Yamagishi, T., & Kiyonari, T. (2000). The group as the container of generalized reciprocity. Social Psychology Quarterly, 63, 116–132.

Yuki, M., Maddux, W. W., & Brewer, M. B. (2005). Cross-cultural differences in relationship- and group-based trust. Personality and Social Psychology Bulletin, 31, 48–62.

Zeligs, R., & Hendrickson, G. (1933). Racial attitudes of 200 sixth grade children. *Sociology & Social Research*, 18, 26–36.

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