Reducing intergroup bias through intergroup contact: Twenty years of progress and future directions

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Abstract

Classic research on the contact hypothesis focused on the direct relationship between the antecedents (conditions under which contact occurs) and the outcomes (primarily, the reduction of prejudice) of intergroup contact. Recent work has taken a broader view of contact processes and effects. We review key developments over the past 20 years, identifying different forms of contact, factors that mediate and moderate the effects of contact, and both the nature and temporal stage and the varied outcomes of contact. We then identify several research directions to address pressing theoretical and practical issues. These issues concern (a) group processes and intergroup relations, (b) intergroup contact in the context of multiple categorization, (c) structural- and individual-level processes, (d) a broader range of individual-level outcomes (e.g., health), and (e) impact on social change. Contact theory and research provides a comprehensive conceptual foundation, allied to a range of powerful empirical techniques, for important new advances and practical applications for improving intergroup relations and producing more equitable outcomes across groups.

Keywords

bias, categorization, collective action, contact theory, group processes, health disparities, intergroup contact, intergroup relations, prejudice, prejudice reduction

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Most research on intergroup contact has its roots in Gordon Allport's (1954) classic text, *The Nature of Prejudice*, which focused theory and research on the idea of contact as a means of reducing prejudice. In this article, we briefly review Allport's classic formulation, consider theoretical and empirical developments of intergroup contact theory over the past 20 years to illustrate the increasing sophistication and scope of research on intergroup

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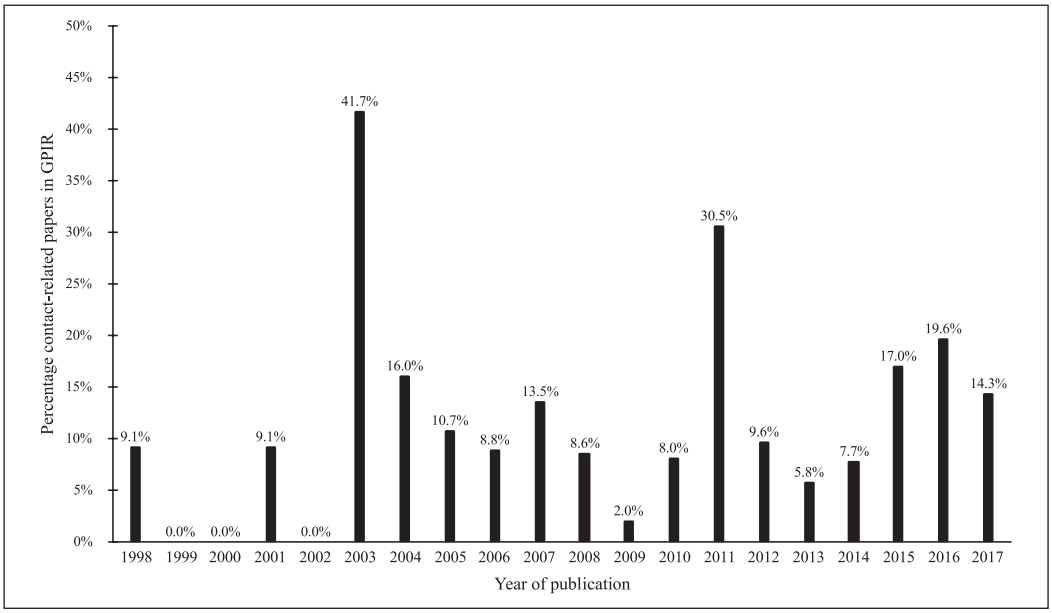

Figure 1. Percentage of specifically contact-related papers among all papers published in GPIR each year between 1998 and January 2017. Note that introductions and editorials were not counted, but reviews and theoretical papers were included.

contact, and provide a personal view (albeit one that combines the ideas of four people, two more senior, two more junior; two currently based in Europe, and two based in the US) on promising future developments in this area.

The founding of *Group Processes & Intergroup Relations* (GPIR) played a key, catalytic role in stimulating work on this topic. The percentage of papers on contact published annually in GPIR has been generally increasing across this 20-year period (see Figure 1). A glance at the topics covered over the past two decades shows that the journal has played an active role in shaping the direction of the field, exemplified by two special issues, one on "Intergroup Contact" (2003) and another on "Prejudice Reduction Through Extended and Other Forms of Contact" (2011). Overall, in a keyword-guided search of GPIR papers over these two decades, we identified more than 80 publications on intergroup contact. These publications are identified in the online supplemental materials accompanying this article, which include Table S1 that displays the breakdown of this research by type of study, type of contact, and whether the work focuses on processes, group status, valence of contact, study of social networks, or multiple categorization.

The Past

Empirical evidence for the effectiveness of intergroup contact had been available for almost two decades before Allport (1954) consolidated this information as the reformulated contact hypothesis. Allport's version included four prerequisite features for contact to be successful at reducing intergroup conflict and achieving intergroup harmony: (a) equal status within the contact situation; (b) intergroup cooperation; (c) common goals; and (d) support of authorities, law, or custom (see Pettigrew, 2016). Since Allport's formulation, the contact hypothesis has received extensive empirical validation. Overall, the evidence has been supportive, but researchers identified additional prerequisite features for successful contact. Particularly important are the

opportunity for personal acquaintance between the members, especially when personalization occurs with those who do not meet stereotypic expectations, and the development of intergroup friendships.

One of the most significant developments in this area was the publication of a comprehensive meta-analytic review of the effects of intergroup contact on intergroup attitudes: Across 713 independent samples from 515 studies, intergroup contact significantly improved outgroup attitudes (Pettigrew & Tropp, 2006). Although this effect was reliably stronger when Allport's "prerequisite" conditions were met, intergroup contact still improved attitudes in the absence of these factors (mean *r*s = .29 vs. .20). Subsequent meta-analyses confirmed the efficacy of cross-group friendships (Davies, Tropp, Aron, Pettigrew, & Wright, 2011) and the effectiveness of contact interventions outside the lab (Lemmer & Wagner, 2015). These findings provided the staging for subsequent work in this area, and shifted the primary focus from *when* intergroup contact is effective to *why and how* it affects intergroup relations.

The Present

Whereas classic research on the contact hypothesis concentrated on the direct relationship between the antecedents (conditions in which contact occurs) and the outcomes (primarily, the reduction of prejudice) of intergroup contact, contemporary research on this topic, published over the past two decades, has also emphasized several aspects of what transpires, both intrapsychically and interpersonally, during intergroup contact to produce such outcomes. This work has a strong process orientation and has transformed the contact *hypothesis* into a viable contact *theory* (Hewstone & Swart, 2011). In this section, we review five different facets that have characterized much of intergroup contact research over the past 20 years.

Forms of Contact

Whereas traditional work on intergroup contact studied the effects of direct, face-to-face contact with members of another group, contemporary research includes (a) extended, (b) vicarious, (c) imagined, and (d) virtual contact.

Extended contact, first identified by Wright, Aron, McLaughlin-Volpe, and Ropp (1997), represents the idea that mere knowledge of an ingroup member's close, positive relationship with an outgroup member can reduce intergroup bias. In their paradigmatic work, Wright et al. first reported correlational evidence that people who knew that an ingroup member had an outgroup friend had less negative intergroup attitudes, and then demonstrated experimentally that providing this information created more positive attitudes. Furthermore, extended contact positively affects intergroup attitudes over and above the influence of direct intergroup contact (for a review, see Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014).

Vicarious contact represents another indirect form of contact that integrates the ideas of extended contact with general principles of social learning theory. 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 of possible behavior. It can inhibit or disinhibit existing inclinations and help people acquire new knowledge, understanding, and skills. Television, radio, and the Internet are primary sources of information about impressions that ingroup members may have of other groups (e.g., Schiappa, Gregg, & Hewes, 2005).

Imagined contact is an indirect form of contact in which individuals actively engage in mental simulation of a positive contact experience (Crisp & Turner, 2009). While we do not believe that prejudice can simply be "imagined away," studies have shown that, when specific conditions were met, imagining contact successfully reduced bias toward a range of outgroups and even attenuated anticipatory physiological responses during actual interaction with a presumed outgroup member (K. West, Turner, & Levita, 2015). GPIR published Miles and Crisp's (2014) meta-analysis of 72 studies, confirming imagined contact effects.

Virtual contact involves computer-mediated communication that enables contact among individuals

who otherwise would not have the opportunity to meet in person. Amichai-Hamburger and McKenna (2006) argued that the Internet might be particularly well suited for optimal contact, because it creates a protected and controlled environment, and allows scheduling multiple contact experiences across extended time periods. A growing body of empirical research has assessed the lasting impact of computer-mediated intergroup contact on outgroup attitudes (e.g., White, Abu-Rayya, & Weitzel, 2014). Virtual contact effects, however, tend to be smaller than direct or extended contact effects (Lemmer & Wagner, 2015).

Mediating Mechanisms

Research on mediating mechanisms has been prominent over the past two decades (see Table S1). In this work, affective processes have emerged as particularly important; Pettigrew and Tropp's (2008) meta-analysis of intergroup contact mediators demonstrated that reductions in group-based anxiety and increases in empathy and perspective taking mediated contact effects more strongly than did enhanced knowledge of the other group. Anxiety similarly mediates the effects of other forms of contact (see Vezzali et al., 2014).

Contact also alters perceived norms for intergroup behavior. Along these lines, research on extended contact has shown that learning that an ingroup member has positive outgroup contact communicates that both the ingroup and the outgroup have more inclusive norms than originally thought (Gómez, Tropp, & Fernández, 2011; Turner, Hewstone, Voci, & Vonofakou, 2008). Indeed, changing perceptions of intergroup norms may represent a more efficient way to promote positive relations between groups than targeting attitudes directly, which may be deeply embedded in personal experiences and long-term socialization (Paluck, 2009).

Positive intergroup contact also changes how people perceive their relationship to a person originally considered to be an outgroup member, both at interpersonal and intergroup levels. At the interpersonal level, through repeated, intimate direct contact, the outgroup becomes incorporated into the self-concept, which then leads, at the intergroup level, to more positive outgroup attitudes (Eller & Abrams, 2004). There is also evidence that extended contact works through this process (Gómez et al., 2011; Turner et al., 2008).

One critical way that positive intergroup contact improves intergroup relations is by affecting social categorization. Whether people perceive others as members of an ingroup or an outgroup critically affects how they think about, feel toward, and act toward others (see Dovidio & Gaertner, 2010, for a review). We do not see "contact" versus "categorization" as competing perspectives. Rather, they are complementary: For example, the efficacy of contact can be increased by simultaneously promoting more inclusive forms of categorization; and changing social categorization can affect the nature, valence, and impact of intergroup contact. Contact can reduce prejudice by affecting social categorization in two ways, by (a) reducing the salience of group identities (decategorization), or (b) changing the ways people categorize others in the situation (recategorization).

With respect to decategorization, to the extent that people learn through contact information about a member of another group that individuates that person, group identities may become less salient in the relationship (Miller, 2002). Although this process can undermine group-based stereotyping, decategorization limits generalization of new attitudes to other members of the outgroup because reduced category salience weakens the bonds that link individuated or personalized outgroup members to the outgroup as a whole.

Alternatively, positive intergroup contact, particularly when it involves cooperative interaction or emphasizes shared goals or overlapping identities, can produce recategorization. Recategorization changes the conceptual representations of the different groups from an "us" versus "them" orientation to a more inclusive "we," which redirects the forces of ingroup favoritism to promote more positive orientations toward others formerly

perceived as members of an outgroup. Indeed, the effects of the conditions originally identified as prerequisites by Allport (1954) in the contact hypothesis, such as cooperation and shared goals, occur in part because they create a greater sense of common identity (Gaertner, Dovidio, Guerra, Hehman, & Saguy, 2016). Moreover, as with decategorization, more positive feelings toward others formerly perceived as members of an outgroup may generalize more strongly to the outgroup as a whole when both common identity and original group identities, which provide the associative link between outgroup and contact partner, are simultaneously salient (i.e., a salient *dual* identity; Gaertner et al., 2016).

Moderating Factors

Research over the past two decades has built upon Allport's (1954) heuristic statement of what were then thought to be the "optimal" conditions of contact by identifying factors that may facilitate or inhibit positive contact effects, or affect the direction of contact effects on intergroup relations (i.e., moderating mechanisms; see Table S1). We consider three key moderators: typicality, group status, and contact valence.

The extent to which encountered outgroup members are perceived to be typical of their groups plays a substantial role in moderating the effects of positive intergroup contact on generalized attitudes. Perceived typicality reflects the strength of a perceiver's associative link between a specific exemplar and the stored representation of the respective social category (Brown & Hewstone, 2005). This process has important consequences for intergroup dynamics, because information about an atypical group member is less likely to shape views or inspire reevaluation of existing beliefs about their social group. Thus, positive intergroup contact is often less effective at improving outgroup attitudes when it involves outgroup members perceived to be very atypical, rather than typical, of their group (e.g., Binder et al., 2009; for a review see Brown & Hewstone, 2005).

With respect to group status, meta-analyses (Pettigrew & Tropp, 2006; Tropp, 2007; Tropp & Pettigrew, 2005) have found that, overall, positive contact tends to more strongly and consistently improve the attitudes of members of advantaged groups toward disadvantaged groups than vice versa. However, this may not be a universal difference; indeed, several studies have found stronger contact effects for minority- than for majority-group members (e.g., Wölfer, Schmid, Hewstone, & van Zalk, 2016, Study 1).

Various factors may determine if, and where, such differences occur in the effectiveness of contact for majority- and minority-group members. For instance, minority-group members may have particular expectations and experiences that lead them to *construe* intergroup interactions differently than do majority-group members. Relative to members of the majority, minority-group members tend to perceive that they have experienced more discrimination in the past (Tropp, 2007) and anticipate greater prejudice and discrimination on the basis of their group membership (Tropp & Pettigrew, 2005), which can attenuate the impact of favorable intergroup contact.

More recently, if belatedly, research has identified a new and potent influence moderating the impact of contact on intergroup attitudes—the valence of the contact. Much of the vast body of contact research shows that contact quality (or favorability) is more influential in changing intergroup attitudes than contact quantity (e.g., Voci & Hewstone, 2003; Voci, Hewstone, Swart, & Veneziani, 2015). However, recent research has further demonstrated the adverse effect of negative contact on intergroup attitudes and relations, and the processes underlying this effect (Hayward, Tropp, Hornsey, & Barlow, 2017)—including showing that negative contact increases category salience (e.g., Graf, Paolini, & Rubin, 2014).

We have separated mediating and moderating mechanisms in this article, for ease of presentation. However, increasingly sophisticated analyses address both processes simultaneously to provide a more complete account; the first study to do so in the case of intergroup contact was published in GPIR (Voci & Hewstone, 2003).

Nature and Temporal Stage of the Intergroup Exchange

Besides the valence of intergroup contact, research over the past 20 years has considered more fully how the dynamic qualities of intergroup interactions affect the consequences of contact. One key insight from this research is that majority-group and minority-group members have different needs and goals in their intergroup interactions, leading them to different experiences of contact.

In intergroup interactions, members of majority groups seek to be liked and affirmed as moral by members of the minority group, whereas minority-group members are motivated to satisfy needs for respect and empowerment (Bergsieker, Shelton, & Richeson, 2010; Nadler & Shnabel, 2015). As a consequence, majority-group members tend to emphasize commonalities to create more harmonious interactions and reduce the likelihood of being perceived in negative ways, whereas minority-group members are motivated to address not only similarities, but also group-based differences that validate their unique qualities and experiences (Saguy & Dovidio, 2013). Consequently, intergroup interactions structured around Allport's "optimal" conditions (e.g., common goals) may particularly meet the needs and preferences of majority-group members, but may be less satisfying personally and socially to minority-group members. Evidence for differing needs in intergroup contact situations not only helps explain the asymmetry of experiences and outcomes in intergroup interactions, but also identifies an essential element for interventions: To achieve truly constructive intergroup relations, it is important that intergroup exchanges meet the psychological needs of both majority- and minority-group members.

Running orthogonally to the nature of the intergroup exchange is its temporal dimension, reflected in research on how initial and later intergroup encounters may differ. Several authors have pointed out that cross-race interactions, specifically, are qualitatively worse than same-race interactions (for a meta-analysis, see Toosi, Babbitt, Ambady, & Sommers, 2012). Although this negative view of literature on "intergroup interaction" is seemingly at odds with the more positive view of literature on intergroup contact (e.g., Pettigrew & Tropp, 2006), MacInnis and Page-Gould (2015) integrated these positions by considering the temporal dimension. MacInnis and Page-Gould explained that, whereas initial intergroup contact may pose significant challenges (e.g., heightened stress and intergroup anxiety), these challenges diminish with further interactions and the elements of positive intergroup contact become more influential. Appreciating this often-neglected temporal dimension, for example by comparing the effects of initial versus sustained contact using longitudinal studies of college roommate relationships (T. V. West & Dovidio, 2013), can help further illuminate how and why this change from negative to positive effects occurs. Related temporal issues include when, developmentally, contact is most effective at improving attitudes (e.g., Wölfer et al., 2016) and whether preconflict contact has positive effects on postconflict attitudes (Voci et al., 2015).

Outcomes of Contact

Whereas the majority of research on the effect of contact on intergroup relations has traditionally focused on people's self-reported, explicit attitudes, recent research has considered a wider array of responses (see Tausch & Hewstone, 2010). One such outcome is implicit attitudes. Whereas explicit attitudes are conscious and controllable, and therefore susceptible to social-evaluative and self-presentational concerns, implicit attitudes are automatically activated evaluations that often operate outside of awareness and therefore are less susceptible to strategic control. Implicit attitudes, which are frequently measured using the Implicit Association Test (IAT; Greenwald, Poehlman, Uhlmann, & Banaji, 2009), tend to form from repeated exposure to positive or negative information about a group, either through socialization or direct experience. Implicit and explicit attitudes can independently predict different intergroup behaviors and discrimination (Greenwald et al., 2009).

A number of studies that have investigated the effects of contact on explicit and implicit attitudes have found some distinct effects. In general, whereas contact quality tends to be more influential than contact quantity for explicit intergroup attitudes, contact quantity plays a primary role for implicit attitudes (e.g., Turner, Hewstone, & Voci, 2007; van Ryn et al., 2015). People with more past contact experiences tend to have less implicitly biased intergroup attitudes. Moreover, whereas explicit attitudes, because they are more malleable, are positively influenced by recent favorable intergroup contact, implicit attitudes are much less affected by these experiences (e.g., Burke et al., 2017; van Ryn et al., 2015).

Lastly, although contact research has largely focused on the intergroup attitudes held by members of majority groups, contact also produces outcomes specifically beneficial for minority members. For individuals belonging to stigmatized groups, stereotype threat (Steele, 2010) can be triggered by the awareness that others view their group as deficient in a particular domain, resulting in anxiety and reduced task performance. Positive intergroup contact, however, weakens the belief that the outgroup holds negative views of the ingroup (Tredoux & Finchilescu, 2010), and consequently intergroup contact—both direct and indirect—can eliminate stereotype threat among members of stigmatized groups (e.g., Abrams, Eller, & Bryant, 2006).

The Future

Although there has been significant progress in research aimed at reducing intergroup bias, particularly centered around intergroup contact, some important lacunae remain. In this section, we identify several specific research directions to address pressing theoretical and practical issues.

Integrating Work on Group Processes and Intergroup Relations

How people interact with members of their *own* group, as individuals or as subgroups, critically determines their needs and goals, and likely their orientations toward other groups. Conversely, how people think and feel about *other* groups and perceive intergroup relations can also shape intragroup dynamics involving group identity, feelings of belonging, and leadership choice and dynamics (Dovidio, 2013). Thus, focusing on the relation between intergroup and intragroup processes can suggest new directions for understanding and improving intergroup relations. For example, future research might consider how changes in intragroup relations (e.g., greater internal conflict) can affect how outgroup members are perceived, and how changes in outgroup perceptions (e.g., as more threatening) can influence intragroup processes (e.g., enhance cohesiveness).

The effects of both outgroup and ingroup contact on intergroup bias should also be considered. These effects may show a "hydraulic effect", whereby as outgroup contact increases, ingroup contact decreases—especially for a measure such as friends, given that time is finite. This potential effect appears to fit with Pettigrew's (1997) "deprovincialization" hypothesis, whereby outgroup contact promotes a less glorified (e.g., Verkuyten, Thijs, & Bekhuis, 2010) and more complex view of the ingroup, which can mediate generalized contact effects across multiple outgroups (Schmid, Hewstone, & Tausch, 2014). For example, Levin, van Laar, and Sidanius (2003) found a negative relationship between respondents' numbers of ingroup and outgroup friends, consistent with a hydraulic effect, and that having more outgroup friends decreased, whereas having more ingroup friends increased, intergroup bias.

We believe that this possible hydraulic relationship between ingroup and outgroup contact merits future consideration. It is plausible that changes in outgroup attitudes could occur via reduced ingroup, and not only increased outgroup, contact—especially if ingroup friends hold negative outgroup attitudes, which are discussed among ingroup members. This reasoning suggests that ingroup friends' attitudes toward outgroup members might moderate the effect of contact with them on outgroup attitudes.

Another group process that can affect intergroup relations is the complexity of the ingroup

prototype. Because majority groups tend to project their values and norms as prototypical for the collective group or society (Wenzel, Mummendey, & Waldzus, 2007), they tend to perceive minority groups and their members as nonnormative or deviant, and thus devalue them. However, when the collective group or society prototype is viewed as more complex (Peker, Crisp, & Hogg, 2010), for instance including different ethnic or racial groups as elements of the group prototype, projection and hence bias toward these minority groups is reduced.

Currently, societies are changing rapidly following unprecedented levels of migration, and these changes involve complicated issues of social identity among members of immigrant groups and members of the host country (Sam & Berry, 2010). Immigration essentially involves both intergroup and intragroup processes, and understanding these processes jointly can help inform social policies that benefit societies, groups within those societies, and individuals within those groups. Contact research that conceptually recognizes and embraces the nested nature of these processes will play an important part in the integration of research on intra- and intergroup relations.

Studying Intergroup Contact in the Context of Multiple Categorization

Traditionally, intergroup relations and intergroup contact have been conceptualized as involving members of two mutually exclusive groups (e.g., White British and Asian British). People's social realities can, however, be defined by membership in multiple social groups. Nevertheless, the role of multiple categorization in intergroup contact experiences has received surprisingly little attention (see Table S1, online supplemental materials). It is unclear, for example, whether interactions with partial ingroup members affect attitudes towards the outgroup along the nonshared dimension, and whether these contact effects match contact with "full" outgroup others.

Moreover, patterns of simple categorization, for which group memberships of the same *type* are mutually exclusive (e.g., Asian *or* White), no longer adequately describe populations in increasingly globalized societies; simultaneous identification with multiple groups—for example, multiple ethnicities or nationalities—is increasingly common. A challenge for intergroup contact research therefore lies in expanding approaches to intergroup relations to include populations with more complex self-categorizations. Future research on intergroup contact can be informed by studies on the flexibility and context-dependency of social identification among individuals with multiple ethnic and cultural backgrounds and on the effect that salience of a shared versus nonshared ethnic background has on interactions between people of multi- and mono-ethnic background (Gaither, Sommers, & Ambady, 2013). One intriguing idea would be to explore the effect of contact with multiracial or multiethnic individuals on attitudes toward others characterized by one, or both, of these group memberships, and to examine the role of this type of contact on attitudes towards other groups not directly involved in the contact situation (e.g., Schmid et al., 2014).

Integrating Structural- and Individual-Level Processes

Another promising direction for future research involves the direct integration, both empirical and conceptual, of processes at individual and structural levels within the same scholarly investigation. For instance, Christ et al. (2014) used the statistical technique of multilevel modeling to estimate the distinct effects of both intergroup contact aggregated at a regional level and individual variation in self-reported personal intergroup contact, on prejudice. Consistent with previous research, individuals who had greater contact with members of the minority group reported less prejudice. However, over and above their personal level of intergroup contact, people who lived in areas whose residents had more frequent intergroup interactions also displayed lower levels of prejudice. Christ et al.'s work showed that ingroup norms mediated this effect, and exemplifies how a multilevel approach can

broaden the understanding of mechanisms that simultaneously shape intergroup relations.

Structural- and individual-level processes can also be integrated through another methodological addition to intergroup contact research—social network analysis. This approach can be used to quantify, inter alia, direct and indirect contact, reciprocity of connections, and each individual's opportunity for outgroup contact via one or more linking steps (Wölfer & Hewstone, 2017). In addition, social network analysis can reveal properties of the network as a whole (e.g., connectedness within a network), as well as group norms within the network (e.g., ingroup members' average outgroup contact), all of which might affect intergroup relations. Despite its unique advantages, reviewed by Wölfer and Hewstone (2017), social network analysis is still underused in research on intergroup contact. Munniksma, Stark, Verkuyten, Flache, and Veenstra (2013) published the first paper, to our knowledge, applying social network analysis to intergroup contact (specifically, extended contact), which is still the sole paper on this approach published in GPIR.

We believe that social network analysis has broad applicability for the study of a range of contact effects and intergroup relations. With its focus on relationships and their structure, it is well suited to investigate extended as well as direct forms of contact. Employing this analysis can help move contact research forward from its focus on dyadic relationships to a broader and more sophisticated perspective on network dynamics, whereby the effects of contact and of associated changes in social norms, for example, can be studied as they diffuse through social networks.

Expanding Outcomes: The Example of Health

In this section, we suggest that future research might explore the health consequences of contact. Intergroup biases in terms of both prejudice and segregation contribute to the poorer health of minority-group relative to majority-group members (see Major, Dovidio, & Link, in press). Bias not only limits economic and social opportunities, but it also directly produces high chronic levels of stress among minority-group members, and stress in turn erodes health (see Major et al., in press, for a review).

Furthermore, unequal treatment and the experience of bias *within the medical system* also contribute to unjustifiably poorer quality healthcare for minorities compared to majorities (Penner, Hagiwara, et al., 2013). With respect to healthcare providers, doctors' biased perceptions of members of minority groups often lead them to recommend less costly or aggressive treatments than they do for majority-group patients. From the perspective of the minority patients, perceptions of discrimination—both outside and inside the medical context—generate high levels of mistrust of the medical system overall and of the doctor directly providing them service. This mistrust undermines patients' willingness to accept recommended treatments, adherence to the physicians' recommendations, and motivation to seek follow-up care (see Penner, Phelan, Earnshaw, Albrecht, & Dovidio, in press), all of which can have adverse health effects for the patient.

Understanding the dynamics of intergroup medical encounters—most typically involving a patient who is a member of a minority group and a physician who is a member of the majority group—from the perspective of intergroup contact can potentially enhance the quality of these interactions and reduce disparities in healthcare. For instance, more positive intergroup contact with minority-group members during medical school, beyond the positive effects of contact before medical training, is related to students' more favorable attitudes toward these groups as they graduate (Burke et al., 2017). Also, to the extent that intergroup contact in the form of a medical interaction between a doctor and a patient helps to foster a common identity as a team with a common goal of improving the patient's health, rather than emphasizing their difference in status or racial group memberships, medical outcomes may be improved. Under these conditions, biases by the physician in the recommended treatment may be reduced, and patient

trust in the doctor and treatment adherence can be increased (Penner, Gaertner, et al., 2013).

In another example, the recent focus on both negative and positive contact suggests an intriguing extension of a well-established effect, whereby discrimination (i.e., negative contact) has a detrimental effect on health (e.g., Richman, Pascoe, & Lattanner, in press). However, such research has focused only on the negative dimension; the value of positive intergroup contact would be enhanced if it could be shown to attenuate such pernicious effects on health, especially in studies with tangible health outcomes such as blood pressure.

Understanding the Relationship Between Contact and Action for Social Change

Most research on intergroup contact theory has focused on creating more favorable intergroup attitudes, with the assumption that these will translate into more positive intergroup behavior and, in the long run, greater equality. Although positive intergroup contact often produces more positive intergroup behavior as well as attitudes, some researchers have cautioned that harmonious relations between groups do not necessarily improve the welfare of minority-group members or make structural relations more equitable (Dixon, Levine, Reicher, & Durrheim, 2012). Consistent with this view, several studies have found that positive intergroup contact may inadvertently reduce minority-group members' willingness to participate in collective action to improve their position in society (e.g., Saguy, Tausch, Dovidio, & Pratto, 2009; Wright & Lubensky, 2009). However, the merits of this "demobilization" perspective are debated (e.g., Pettigrew & Hewstone, 2017), and future research in this area might thus productively examine (a) the specific psychological mechanisms through which contact affects social change orientations; (b) the conditions under which contact inhibits or promotes action for social change; and (c) how contact affects social change orientations among members of advantaged groups.

Researchers have posited a range of mechanisms underlying the contact–collective action relationship, and proposed mediators should be consolidated in future work. Specifically, positive contact may undermine the motivation to challenge inequalities in part because an emphasis on commonalities reduces identification with the minority ingroup (e.g., Wright & Lubensky, 2009) and diverts attention away from group inequalities (e.g., Saguy et al., 2009). Positive contact also creates affective loyalties toward the majority outgroup, including more favorable attitudes, greater trust, and less threat, which discourage competitive group behaviors such as collective action (Çakal, Hewstone, Güler, & Heath, 2016; Tausch, Saguy, & Bryson, 2015). Simultaneously, however, contact could also strengthen social change orientations, for example by making minority disadvantage salient through opportunities for direct comparisons, or empowering minority members when learning that majority members support social change (see Pettigrew & Hewstone, 2017). In addition, contact can influence protest through mechanisms at different levels of analysis; Kauff, Green, Schmid, Hewstone, and Christ (in press) found that ethnic minority-group members were more supportive of policies benefitting their ingroup when living in contexts in which majority members have more frequent positive contact.

Research might also productively consider factors that moderate the effect of contact on action for social change, as intergroup interactions do not necessarily "demobilize" protest and resistance. Positive contact does not undermine collective action when majority outgroup partners explicitly denounce inequality as unjust (Becker, Wright, Lubensky, & Zhou, 2013) or are perceived to be atypical for the outgroup overall (Schellhaas et al., 2017). Moreover, some forms of contact may actually energize resistance to the status quo. In two recent studies by Reimer et al. (2017), negative contact with majority outgroup members increased the willingness of minority-group members to take action for social change by drawing attention to group-based injustice. Importantly, positive contact no longer predicted collective action over and above negative contact in these studies, suggesting that previous research in which contact was found to reduce collective

action may have conflated the presence of positive contact with the absence of negative contact.

Although research to date has mostly examined how contact affects collective action tendencies among members of minority groups, contact also provides a potentially powerful opportunity for majority-group members to foster political solidarity with the minority group. Consistent with this view, positive contact not only promotes majority group support for policies that benefit a minority outgroup (e.g., Voci & Hewstone, 2003, Study 2), but also it can energize participation in solidarity-based collective action on behalf of the minority group (Reimer et al., 2017; Selvanthan, Techakesari, Tropp, & Barlow, 2017). A future challenge for contact research remains to identify interventions that not only improve attitudes and inspire solidarity in members of advantaged groups, but also directly empower disadvantaged minorities to take assertive action for more structurally equitable intergroup relations.

Summary and Conclusion

The two decades of GPIR have seen major developments in the field of intergroup contact begun by Gordon Allport over 60 years ago. These advancements have included the realization that contact is not limited to face-to-face encounters, but also can involve extended, vicarious, imagined, and virtual forms—forms that both complement and provide alternative approaches for improving intergroup relations, especially when groups are segregated or in conflict. In addition, significant progress has been made in identifying the mechanisms that mediate and factors that moderate the effects of intergroup contact, and documenting that the positive outcomes of contact are impressively varied, going far beyond reduction of explicit prejudice. The perspective on intergroup contact is now also broader and more dynamic, considering not only the nature of contact but also where on a temporal continuum (from nervous initial encounters to the comfort of repeated encounters over time) a specific case of contact lies.

We expect the future to be as rich as the past, with burgeoning new research directions. To illustrate the still significant future for contact theory, we identified several, among many possible, new ways for integrating the study of intergroup contact with other work inside and outside of psychology, at multiple levels of analysis; ensuring that contact theory is "fit for purpose" in increasingly globalized societies in which blurred group boundaries are more likely and people may identify simultaneously with multiple groups; and expanding the range of outcomes of contact, including both health outcomes and collective action for social change. These new directions, building on the foundation of past research on intergroup contact, underline the spirit and value of GPIR: Our best means to reduce prejudice and produce more equitable outcomes across majority and minority groups will come from an integration of factors relating to both *group processes* and *intergroup relations*.

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