

### Intergroup Cooperation

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### Abstract and Keywords

Cooperative intergroup relations are essential to the effective functioning of complex organizations and societies. Nevertheless, because it is so embedded in intergroup functioning and undermined by general intergroup biases, intergroup cooperation among members of different groups is much more difficult to achieve and sustain than intragroup cooperation among members of the same group, or even among unacquainted individuals. This chapter considers the antecedents and consequences of intergroup cooperation, emphasizing the reciprocal connections between cooperation and intergroup relations. The authors review the basic dynamics of cooperation and discuss the influences that generally impede cooperation between groups and the factors that can promote intergroup cooperation. They also review how intergroup cooperation can positively transform intergroup relations through two basic and complementary psychological processes: direct functional effects and collective identity. The authors conclude the chapter by integrating these two lines of work conceptually to identify promising questions and directions for future research.

Keywords: contact theory, cooperation, intergroup bias, intergroup relations, prejudice, prosocial behavior, social dilemmas, social identity, superordinate goals

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*Cooperation* is broadly defined as an interdependent relationship in which two or more parties are expected to coordinate their actions, pursue common goals, and promote mutually beneficial outcomes, which may include social and material rewards (Dovidio, Piliavin, Schroeder, & Penner, 2006; see also Argyle, 1991). Most of the research on cooperation has focused on cooperation between individuals with no prior connection (Schroeder, Steel, Woodell, & Bembenek, 2003), or on cooperation as a fundamental intragroup process (Tyler, 2011). Cooperation is probably most commonly found within groups in which “members interact on a regular basis, have affective ties with one another, share a common frame of reference, and are behaviorally interdependent” (Levine & Moreland, 1994, p. 306). Cooperation also differs from *helping* in that the parties involved in helping

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relations typically are not equal partners. With one-on-one helping, for example, there is one person who needs help and another who has the resources (e.g., time, effort, money) necessary to provide it. In contrast, cooperation involves two or more people coming together as more or less equal partners. By pooling their resources, people cooperating can accomplish more than they could achieve individually.

This chapter focuses on a particular type of cooperation, intergroup cooperation. Although helping can also involve intergroup processes (see Nadler's chapter in this publication), cooperation is fundamentally a group-level process, drawing individuals into interdependent relations as dyads, small groups, or large collectives (Penner, Dovidio, Piliavin, & Schroeder, 2005). Perhaps because it (p. 563) is so embedded in group functioning, intergroup cooperation among members of different groups is much more difficult to achieve and sustain than intragroup cooperation among members of the same group, or even among unacquainted individuals (Wildschut & Insko, 2007). However, intergroup cooperation has unique benefits for intergroup relations (Pettigrew & Tropp, 2011). Thus the study of intergroup cooperation can offer valuable insights for understanding the dynamics of cooperation and prosocial behavior, as well as for illuminating intergroup processes and relations.

In this chapter we consider the reciprocal connection between intergroup cooperation and intergroup relations. In the next section, we briefly review the basic dynamics of cooperation and then consider the influences that generally impede cooperation between groups and the factors that can promote intergroup cooperation. Then, in a section that follows, we discuss the consequences of cooperation for intergroup relations. We conclude the chapter by integrating these two lines of work conceptually to identify promising questions and directions for future research.

We draw on a wide range of research in this chapter. Much of the work on cooperation is in the scholarly tradition of game theory and social dilemmas, such as the prisoner's dilemma paradigm (see Parks's chapter in this publication). The defining feature of a social dilemma is the inherent conflict between acting to maximize one's own best interest or the best interest of a group. There are two general classes of social dilemma paradigms (Schroeder et al., 2003). Common pool, or resource management, dilemmas involve situations in which individuals draw resources from a general pool. However, if too many people maximize their self-interests, the entire group suffers negative consequences (e.g., overgrazing common land). Public goods dilemmas are situations in which individual group members must make contributions for a desirable collective benefit (e.g., public radio), which may benefit even people who do not contribute ("free riders"). However, in this chapter intergroup cooperation is more broadly defined to include willingness to share resources in an unstructured way, support for addressing inequity, and acts to establish reciprocally positive social relations (e.g., self-disclosure).

# The Influence of Intergroup Processes on Cooperation

In an influential article titled “Whatever Happened to the Group in Social Psychology?”, Steiner (1974) observed that “by the 1960s social psychology had become much more individualistic. Interest in the group as a system had waned and research was generally focused on intraindividual events or processes that mediate responses to social situations” (p. 94). Steiner warned that such a strict individualistic focus could not capture the transcendent influence of group processes on social life. Indeed, viewing people—others and oneself—in terms of group membership rather than individual qualities (i.e., social categorization) profoundly influences the way people perceive, think about, feel about, and act toward others. In this section, we first review how thinking about others as members of social categories rather than as distinct individuals affects the way people think and feel about others. Then, to help develop an understanding of the different influences promoting or inhibiting intergroup cooperation, we discuss evidence from nonhuman primates and humans, from a young age into adulthood. After that we consider the challenges of achieving intergroup cooperation among adults, examining both the problem and potential solutions.

## Social Categorization

Categorization is a universal facet of human thinking and is essential for efficient psychological functioning. However, categorization compromises accuracy for ease and speed of processing and analysis (Fiske & Taylor, 2007). When people or objects are categorized into groups, differences between people belonging to different groups are accentuated and differences between members of the same group are minimized (Tajfel, 1969). Furthermore, these similarities and differences are often viewed as inherent to the nature of the groups (see Yzerbyt & Demoulin, 2010) and generalize to additional dimensions (e.g., character traits) beyond those facets that differentiated the categories originally (Allport, 1954).

In terms of social categorization, recognition of one’s membership in some groups (ingroups) but not others (outgroups) arouses, often spontaneously, fundamental psychological biases. Cognitively, people process information about ingroup members more deeply than about outgroup members (Van Bavel, Packer, & Cunningham, 2008), and individuals have better memory for information about ways ingroup members are similar and outgroup members are dissimilar to them (Wilder, 1981). Emotionally, people feel more positively about ingroup than outgroup members (Otten & Moskowitz, 2000). They perceive (p. 564) outgroup members as less human than ingroup members (Leyens et al., 2003) and value their lives less (Pratto & Glasford, 2008). Individuals are also more generous and forgiving in their attributions about the behaviors of ingroup members relative to outgroup members (Hewstone, 1990).

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In addition, according to social identity theory (Tajfel & Turner, 1979), people's feelings of esteem are closely tied to their social identities. Social identity is commonly enhanced by emphasizing the "positive distinctiveness" of one's group (Tajfel & Turner, 1979; see also Abrams & Hogg, 2010), in which they value defining characteristics of their group more than the distinguishing features of other groups. To maintain the positive distinctiveness of their group, people engage in ingroup favoritism and outgroup derogation, and they are inclined to compete with and discriminate against other groups to gain or maintain advantage for their group.

Communication across group lines is often less effective than within groups, not only because people are generally less accurate at perceiving expressions of emotion displayed by outgroup than ingroup members (Elfenbein & Ambady, 2002; Young & Hugenberg, 2010), but also because they are biased in their misperceptions. For instance, people are more likely to perceive a hostile face as belonging to an outgroup member (Dunham, 2011) and to misinterpret neutral facial expressions as conveying anger for outgroup members than for ingroup members (Hugenberg & Bodenhausen, 2004). Although people generally assume that ingroup members share their attitudes and beliefs (Robbins & Krueger, 2005), they expect outgroup members to have a contrasting perspective (Mullen, Dovidio, Johnson, & Copper, 1992).

Social categorization processes also operate in ways that directly shape cooperation. Trust is a critical factor in both intergroup relations and cooperation. However, trust between groups is more difficult to achieve than trust between individuals (Penner et al., 2005), and people are less trusting of outgroup than ingroup members (Foddy, Platow, & Yamagishi, 2009). Individuals are particularly vigilant to cues of bias from outgroup members (Vorauer, 2006). Moreover, because people anticipate outgroup members will display bias toward their group (Judd, Park, Yzerbyt, Gordijn, & Muller, 2005), they show a preference for ingroup members who show bias against outgroup members (Castelli, Tomelleri, & Zogmaister, 2008). In fact, expressing biases toward members of another group enhances the social connection among members of the ingroup (Clark & Kashima, 2007).

In general, then, the basic processes activated by social categorization typically create barriers to intergroup cooperation. In the next section, we review converging evidence from research with nonhuman primates, children, and adults that reveals the challenges of establishing and maintaining cooperation and related forms of prosocial behavior (e.g., sharing) between groups.

## Group Membership and Cooperation

To understand the origins of human behavior, including prosocial behavior, social psychologists often study the behavior of other primates (see de Waal's chapter in this publication). The limited data on intergroup cooperation among nonhuman primates, however, indicate considerable variability among species. In addition, the data on chimpanzees, the species most closely related to humans, are mixed. Some studies have shown that chimpanzees cooperate at a high rate with other chimpanzees generally (Greenberg, Hamann,

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Warneken, & Tomasello, 2010), others have found that chimpanzees cooperate relatively infrequently (Jensen, Hare, Call, & Tomasello, 2007), and still others have revealed that chimpanzees cooperate with other chimpanzees primarily when they stand to benefit from the cooperative relationship (Bullinger, Melis, & Tomasello, 2011).

The intergroup dimension relating to cooperation that has been studied the most involves the distinction between kin and non-kin. Again, there are considerable differences between species. Burkart, Fehr, Efferson, and van Schaik (2007) found that marmosets made altruistic food distributions, regardless of whether the partner was kin or non-kin. However, de Waal, Leimgruber, and Greenberg (2008) found that group membership matters with capuchins. Capuchin and rhesus monkeys demonstrate intergroup biases not only between kin and non-kin, but also between social ingroups and outgroups more generally (e.g., Mahajan et al., 2011). While cooperation with kin may be most beneficial for inclusive fitness (Hamilton, 1964; Trivers, 1971; see Penner et al., 2005 for a review), many of the key elements of cooperation, such as reciprocity (Gouldner, 1960), also have individual and collective survival value when extended to ingroup members who may not be genetically related. Nevertheless, although nonhuman primates clearly distinguish between ingroups and outgroups, the effect of this (p. 565) distinction on cooperation across species is not simple or straightforward.

With humans, intergroup biases in cooperation occur relatively early developmentally (see also Warneken & Tomasello's chapter in this publication). For instance, white preschoolers and first graders are more willing to share with another white child than with a black child (Houlette et al., 2004; Zinser, Bailey, & Edgar, 1976; Zinser, Rich, & Bailey, 1981), a bias that perseveres through fifth grade (Zinser et al., 1981). Olson, Dweck, Spelke, and Banaji (2011) also found that younger children (ages 3.5 to 7.5) show consistent ingroup biases in sharing resources, but older children (ages 8 to 11.5) distributed resources, particularly in exchanges involving blacks, more equitably.

Work on intergroup attitudes helps identify intergroup processes underlying these developmental trends. Baron and Banaji (2006), for example, used an implicit association test (IAT) to assess children's automatically activated (implicit) intergroup associations. Younger children, around the age of 6, spontaneously exhibited ingroup bias in their associations with ingroup relative to outgroup members (Baron & Banaji, 2006). This bias, however, represented mainly strong positive feelings about the ingroup rather than negative feelings about outgroups (Degner & Wentura, 2010). Baron and Banaji further found that, with greater socialization about the social inappropriateness of certain forms of intergroup bias, overt expressions of racial bias decreased systematically from 6 to 10 years of age to 19 years of age. While implicit intergroup biases persist across this age range, norms of fairness become firmly established (Killen & Rutland, 2011). As adolescence approaches, however, group membership becomes increasingly important psychologically, and negative implicit outgroup associations occur along with positive ingroup associations (Degner & Wentura, 2010). Thus, intergroup biases in cooperation have a

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curvilinear trajectory, with young children (e.g., preschoolers) and older children (early adolescents) exhibiting relatively strong ingroup-favoring biases.

By late adolescence and into adulthood, group membership is a strong and consistent factor affecting cooperation. Adults are less cooperative and more competitive when they act as members of a group than when they act as individuals (for a review, see Wildschut & Insko, 2007). Groups are greedier and less trustworthy than individuals (Insko et al., 2001). As a consequence, relations between groups tend to be more competitive and less cooperative than those between individuals. Schopler, Insko, and their colleagues identify this consistent difference as the *interindividual-intergroup discontinuity effect*. Feelings of intergroup threat are a robust predictor of intergroup bias and conflict (Riek, Mania, & Gaertner, 2006). One consequence of this fear and distrust is that providing opportunities for communication, which usually substantially increase cooperation between individuals and among members within a group, has a much weaker effect on cooperation between groups (Insko et al., 1993) than between individuals and, under some conditions it can exacerbate competitive relations.

### Interindividual-Intergroup Discontinuity

The interindividual-intergroup discontinuity effect is extremely robust, found consistently in both laboratory and nonlaboratory contexts. In typical laboratory investigations of the interindividual-intergroup discontinuity effect (Schopler & Insko, 1992), participants first learn about a social dilemma that involves two sides. In the prisoner's dilemma, for example, each side must independently make either a competitive or a cooperative choice. Each side's outcome is ultimately determined by the combination of their choices. The dilemma is that each side can maximize its outcome by making the competitive choice, but if the other side also makes a competitive choice, then both sides' outcomes will be poorer than if they had both made the cooperative choice. In a typical study, participants are randomly assigned to the individual or group condition. In the individual condition, two participants play the prisoner's dilemma game in the usual way by simultaneously selecting a response. In the group condition, two groups are formed, and each group discusses the matrix and selects a response. Groups are much more likely to make the competitive choice than are individuals (Wildschut & Insko, 2007).

There are two main explanations for this interindividual-intergroup discontinuity effect. Both explanations and their resultant hypotheses have been tested in the context of mixed-motive strategy games, like the prisoner's dilemma (see Parks's chapter in this publication). The first explanation for the discontinuity effect relates to the fact that group members engage in discussion during mixed-motive games. These discussions are hypothesized to lead to decision-making processes fostering group polarization, and therefore greater competition. Wildschut and Insko (2007) note, however, that the various hypotheses derived (p. 566) from this group decision-making explanation have received limited support. For example, most of the evidence for the discontinuity effect cannot be explained by group polarization, because individuals' initial inclinations are cooperative, not competitive (Wildschut & Insko, 2007). If group polarization were operating, group

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discussion would be expected to lead groups to make more *cooperative* choices, but the evidence does not support that hypothesis. When an initial provocation is received, however, individuals may wish to retaliate, so group polarization can promote greater retaliation and competition (Meier & Hinsz, 2004).

The second explanation of the discontinuity effect posits that groups are motivated by fear of the outgroup. Specifically, competition is likely to be greater in intergroup than interindividual contexts because of fear that outgroups are more untrustworthy than individuals (Insko et al., 2001). Insko et al. argue, however, that a longer-term approach can increase trust, and increasing trust would generally reduce competition. In support of this reasoning, when groups expected to interact multiple times in a prisoner's dilemma game, they expressed greater trust of the outgroup and made fewer competitive choices than when they expected to interact only once.

There is also support for a third factor that accounts for the interindividual-intergroup discontinuity effect: greed as a motivator of competition between groups. Because greed is nonnormative, greedy decision-making would be expected to occur more strongly when there is social support within the ingroup for such decisions (Schopler & Insko, 1992). Indeed, statements reflecting greed were more common in discussions about social dilemmas between groups than between individuals and were associated with lower levels of cooperation between groups than between individuals (Schopler et al., 1995). In addition, encouragement by a confederate within a group preparing to play a prisoner's dilemma game to exploit the other group led to subsequently greater competitiveness (Schopler & Insko, 1992), whereas statements by a confederate advocating cooperation and articulating the long-term disadvantages of competition produced greater cooperativeness than intergroup control conditions (Schopler et al., 1994).

Given the strength of the interindividual-intergroup discontinuity effect, researchers have become interested in ways of reducing this heightened tendency for intergroup competition. However, the interindividual-intergroup discontinuity effect is resistant to many interventions that are effective for facilitating cooperation between individuals. Individuals who have the opportunity to communicate during a prisoner's dilemma game are substantially more cooperative than individuals who do not (Insko et al., 1993). Consequently, one might expect that giving groups the opportunity to communicate prior to making their decision in the prisoner's dilemma game would reduce fear and distrust, and therefore also increase cooperation. Insko and colleagues (1993) found, however, that communication improved cooperation between individuals, but not between groups. Given the distrust between groups, communicating cooperative intent may not be perceived as convincing—and may be seen as a deceptive ploy—and therefore lacks the positive benefits that occur when individuals communicate (Wildschut, Pinter, Vevea, Insko, & Schopler, 2003).

Procedural interdependence, which refers to the process by which members within a group achieve consensus (Wildschut et al., 2003), is also a critical determinant of cooperative intergroup behavior. Wildschut and colleagues hypothesized that procedural inter-

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dependence would exacerbate the effect of greed on competitive behavior, because the group decision cannot be attributed to any single member of the group. Group discussion can also activate normative pressure to act in favor of one's own group, as dictated by the ingroup-favoring norm (e.g., Wildschut, Insko, & Gaertner, 2002). Furthermore, anticipating an interaction with an outgroup activates fear and distrust of that outgroup (Wildschut, Insko, & Pinter, 2004). In a review of the literature, Wildschut and colleagues (2003) concluded that when group members had to achieve consensus, as opposed to making individual decisions, they were more competitive.

Research on intergroup processes generally, and on intergroup cooperation in social dilemmas more specifically, reveals a number of psychological impediments to achieving cooperation between groups. Intergroup competition is neither inevitable nor intractable, however. Although intergroup competition and conflict attract considerable popular and scholarly attention, cooperation between groups is a daily occurrence. In fact, societies cannot function effectively without basic forms of intergroup cooperation. In the next section we review the principles and processes that promote and underlie intergroup cooperation.

### (p. 567) **Common Identity and Intergroup Cooperation**

The robustness of the interindividual-intergroup discontinuity effect and the fact that interventions that normally increase cooperation between individuals have limited impact for cooperation between groups have focused conceptual and empirical attention on changing the ways people conceive of group memberships as a primary way to promote cooperation between members of different groups. Whereas work in the area of intergroup relations more generally has shown that decreasing the salience of intergroup boundaries by inducing people to think of others as unique individuals rather than as group members (Wilder, 1981), or by encouraging personalized interactions (Miller, 2002) reduces bias, much of the work on intergroup cooperation emphasizes the value of creating a sense of common ingroup identity between members of the different groups.

One such approach, the common ingroup identity model (Gaertner & Dovidio, 2000, 2009), draws on the theoretical foundations of social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). This strategy emphasizes the process of recategorization, whereby members of different groups are induced to conceive of themselves as a single, more inclusive superordinate group rather than as two completely separate groups. A common ingroup identity can be achieved by increasing the salience of existing common superordinate memberships (e.g., a school, a company, a nation) or by introducing factors (e.g., common goals or fate) shared by the different groups. When people conceive of others as ingroup members with a common identity, the processes that produce cognitive, affective, and evaluative benefits for ingroup members become extended to those who were previously viewed as members of a different group (see Dovidio & Gaertner, 2010).



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Considerable empirical support has been obtained for the common ingroup identity model (see Gaertner & Dovidio, 2009). Inducing members of different groups to see themselves within a common ingroup identity promotes more positive attitudes toward members of other groups (Gaertner, Mann, Murrell, & Dovidio, 1989) and helpfulness toward them (Dovidio et al., 1997; Levine, Prosser, Evans & Reicher, 2005; Nier, Gaertner, Dovidio, Banker, & Ward, 2001). These effects have been observed in studies including students attending a multiethnic high school, banking executives who had experienced a corporate merger, and college students from blended families whose households are composed of two formerly separate families trying to unite into one (Banker & Gaertner, 1998; Gaertner, Rust, Dovidio, Bachman & Anastasio, 1996). Other field research demonstrates that more salient common identity relates to more favorable intergroup attitudes for members of majority (Smith & Tyler, 1996) and minority racial and ethnic groups (Pfeifer et al., 2007) and across national groups (Klandermans, Sabucedo, & Rodriguez, 2004). Experimental evidence that a common ingroup identity improves intergroup attitudes comes from research employing both ad hoc and real groups, using children as well as adults, and in the United States (e.g., Houlette et al., 2004; Nier et al., 2001; see Gaertner & Dovidio, 2000) and in other countries, such as Portugal (Guerra et al., 2010), Spain (Gómez, Dovidio, Huici, Gaertner, & Cuadrado, 2008), Germany (Kessler & Mummendey, 2001), and Poland (Bilewicz, 2007).

Unlike helping, which is unilateral in nature, achieving cooperation requires transactional qualities that promote positive interdependence. Trust and forgiveness are two such critical factors. Because trust is often based on an expectation of reciprocity (Yamagishi & Kiyonari, 2000), it has special significance in situations of interdependence (Chaudhuri, Sopher, & Strand, 2002), and establishing a reputation as being trustworthy can be critical for eliciting future cooperation (e.g., Milinski, Semmann, Bakker, & Krambaek, 2001).

Group membership fundamentally shapes feelings of trust and perceptions of others' trustworthiness, so that ingroup strangers are perceived as more trustworthy than outgroup strangers (Platow, McClintock & Liebrand, 1990). Foddy et al. (2009), for example, informed people that previous ingroup and outgroup participants had been given money to distribute between themselves and an unknown other person in any way they chose (similar to a dictator game). People simply had to choose between an opportunity to receive money from either an ingroup or an outgroup member. Participants in this research were significantly more likely to choose to receive money from an ingroup than an outgroup stranger, suggesting that they trusted the ingroup member more.

Additional research indicates that this effect is not due to feelings of more generalized liking of ingroup members than outgroup members but rather to greater confidence in a reciprocal bond. (p. 568) In general, this greater trust in ingroup than outgroup members is stronger in situations of greater interdependence (Tanis & Postmes, 2005; see also De Cremer & van Vugt, 1998). Moreover, while people may express somewhat greater trust of ingroup than outgroup members generally, this trust is contingent upon the belief that this sense of common group membership is shared by both parties. Platow, Foddy, Yamagishi, Lim, and Chow (2012) found that the preference to receive a monetary allocation

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from an unknown ingroup member than an unknown outgroup member occurred primarily when participants believed that the other person knew of their shared group identity. Because exchanges between members of the same group reflect deeper trust, people are willing to disclose more personal information when a common ingroup identity is established than when it is not (Dovidio et al., 1997).

Emphasizing a common group identity facilitates more cooperative and socially responsible behavior in paradigms assessing various forms of cooperation, such as a commons dilemma. Kramer and Brewer (1984) led participants to focus either on their different group identity relative to others in the game (i.e., they were college students whereas other participants were not) or on a superordinate identity (i.e., participants were all residents of the same city). When resources became scarce, participants whose superordinate identity was emphasized did more to conserve the resources than did those who saw themselves as members of different groups (see also De Cremer & van Vugt, 1998).

In work paralleling research on the common ingroup identity model, Wit and Kerr (2002) examined the choices people made in a commons dilemma when the experimenter emphasized that the person would be participating as (a) one of a group of six people in the session, (b) a member of one of two different three-person groups in the same session, or (c) one of six individuals performing the task. Later in the study, participants had the opportunity to allocate points, which could be redeemed for money, to their personal (individual) account, to an account for the three people in their group in the two subgroups condition, or to the collective account for all six people in the session. Participants allocated the most resources to the six-person collective account (a cooperative action) when the situation was framed so that players believed they shared one collective identity; they allocated the fewest resources to the six-person collective account when the subgroup social identity was salient and intergroup conflict was emphasized. Thus, collective identity instigated greater levels of cooperation and self-sacrifice for the collective good than did salient individual or subgroup identities.

Buchan et al. (2011) further noted that a sense of common identity increases trust, thereby reducing fear of exploitation by the other party, but it does not eliminate the self-interested benefit of noncooperation (i.e., greed) in intergroup exchanges. Thus, more than trust is involved. Buchan et al.—also drawing on the principles of social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner et al., 1987) that form the foundation for the common ingroup identity model (Gaertner & Dovidio, 2000, 2009)—considered why people would put collective interest ahead of personal interest in social dilemmas. Buchan et al. noted that when people experience a strong sense of social identity, they see themselves as interchangeable components of a larger social unit, and the group's interest and their personal interests become intertwined and, in fact, interchangeable (Brewer, 1991; De Cremer & van Vugt, 1999). As a consequence, people who maintain a strong sense of shared identity with others continue to contribute in a public-goods dilemma even when they learn that others are not initially contributing at a high

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level (De Cremer & van Dijk, 2002). By contrast, people who have a weak social identity reduce their contributions in accord with their self-interest.

Large-scale cooperation between groups, such as between people from different countries, is particularly challenging to achieve because people tend not to develop trusting relationships with large aggregates of anonymous individuals, nor do they exhibit substantial empathy for them (Cameron & Payne, 2011), which can increase the tendency to be noncooperative. As a consequence, large-scale intergroup relations tend to be highly biased in favor of ingroups based, for example, on ethnicity, nationality, or religion (Bernhard, Fischbacher, & Fehr, 2006; Choi & Bowles, 2007). Nevertheless, Buchan et al. (2011) found that a strong sense of common, global identity was a critical predictor of cooperation cross-nationally. The degree to which participants from six different countries—Argentina, Iran, Italy, Russia, South Africa, and the United States—identified with the world as a whole predicted the extent to which they would contribute to a global public good (a “world” account) relative to a local or personal account. Furthermore, this effect of identification (p. 569) occurred beyond the effects of perceptions of how much other participants would also contribute to the world account. Thus, common group identity can overcome the parochial interests that typically characterize the relations between groups and nations.

In summary, intergroup cooperation is essential for the effective functioning of societies, which are composed of multiple groups. Nevertheless, intergroup cooperation is difficult to achieve and sustain. In this section of the chapter, we reviewed a variety of different factors that may limit intergroup cooperation. Fundamental psychological processes foster allegiance to one’s own group and wariness of other groups. Because of the primacy of the ingroup (Allport, 1954; Brewer, 2000), people may be predisposed evolutionarily to support ingroup members and engage them cooperatively (Axelrod, 1984) while being distrustful of outgroup members (Judd et al., 2005). As work on the interindividual-intergroup discontinuity effect (Wildschut & Insko, 2007) reveals, cooperation between groups is more difficult to achieve than cooperation between individuals. However, inducing people to recategorize others—ingroup and outgroup members—within a common, superordinate ingroup identity (Gaertner & Dovidio, 2000, 2009) harnesses the forces of ingroup favoritism and promotes cooperation with others formerly perceived primarily as outgroup members. In the next section, we further consider the reciprocal role that intergroup cooperation can have on the ways people perceive and respond to ingroup and outgroup members.

## Effects of Cooperation on Intergroup Relations

As was explained at the beginning of this chapter, intergroup relations and intergroup cooperation have a bidirectional relationship. On the one hand, the processes associated with social categorization, social identity, and intergroup relations inhibit the development of intergroup cooperative relations. On the other hand, as shown in this section of

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the chapter, achieving intergroup cooperation can have a significant, transformative effect, improving the quality and stability of intergroup relations.

The potency of intergroup cooperation for improving intergroup relations has long been recognized. It is a key element of Allport's (1954) version of the contact hypothesis. According to Allport, for intergroup contact to be successful at reducing intergroup conflict and achieving intergroup harmony, the contact must involve (a) equal status within the contact situation; (b) intergroup cooperation; (c) common goals; and (d) support of authorities, law, or custom (see also Pettigrew, 1998). The particularly important role of intergroup cooperation was, in fact, highlighted in work on intergroup relations that predated and formed the foundation for Allport's (1954) version of the contact hypothesis. Tests of the contact hypothesis have focused primarily on one particular aspect of intergroup relations, intergroup attitudes.

For example, studies of the experiences of American soldiers during World War II noted that, although segregation of black and white units was the formal policy of the U.S. Army during the war, combat conditions often necessitated racial integration and cooperation among white and black combat troops. White soldiers who had these cooperative combat experiences had more positive racial attitudes than did those who did not (Stouffer, 1949). In addition, in the Merchant Marines, the more voyages white seamen took with black seamen, under conditions of mutual interdependence, the more positive their interracial attitudes became (Brophy, 1946). Watson (1947), in the field of education, also identified "working together on common problems" (p. 58) as a key element for contact to reduce intergroup biases successfully. In what many identify as the original formulation of the contact hypothesis, Williams (1947) proposed the following: "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).

There is impressive evidence, based on what is now termed "contact theory," (Pettigrew & Tropp, 2011) that intergroup contact can improve attitudes toward a range of stigmatized groups, including homosexuals (Herek & Capitanio, 1996), people with psychiatric disorders (Kolodziej & Johnson, 1996), and racial and ethnic minorities (Pettigrew & Tropp, 2006, 2008). Pettigrew and Tropp's (2006) meta-analysis of 713 samples involving over 250,000 participants from 38 nations found that, overall, intergroup contact reduced intergroup prejudice (meta-analytic  $r = -.23$ ), and that contact that met Allport's conditions, including intergroup cooperation, reduced prejudice to a greater extent than contact in the absence of these conditions ( $r_s = -.29$  vs.  $-.20$ ). In addition, the three conditions in Allport's model that relate to cooperative intergroup interdependence—common goals, cooperative interdependence, and equal (p. 570) status—were highly correlated and together fully accounted for the effect of contact for reducing intergroup prejudice ( $r = .29$ ).

There is currently little conceptual or empirical debate about *whether* cooperative intergroup interdependence improves intergroup attitudes—it clearly does. Much of the research now focuses on *why* it has its beneficial effects. Researchers have proposed a num-

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ber of different mechanisms through which cooperative interdependence can reduce intergroup bias. For example, cooperation can produce positive affect, particularly when it yields desirable outcomes. This positive affect creates a “warm glow of success” (Isen, 1970) that colors the way people perceive and respond to others. Positive affect stimulated by success leads people to perceive others more favorably, feel closer to others, and value them more (Forgas, 1995), and it reinforces positive associations with partners in the enterprise, including members of other groups (Lott & Lott, 1965).

This positive influence on feelings about members of other groups may be reinforced because it arouses cognitive dissonance when juxtaposed with the typically relatively negative attitudes that people hold toward outgroups (Dovidio & Gaertner, 2010). Attempts to resolve this dissonance initiate rationalization and justification processes that improve attitudes toward outgroup members, including those not directly involved in the cooperative effort (Miller & Brewer, 1986). Consistent with these various forms of positive affect explanations, cooperative efforts that lead to success produce more positive intergroup attitudes, whereas joint efforts between groups that fail often exacerbate intergroup bias (Blanchard, Adelman, & Cook, 1975).

Two other general explanations for the positive influence of intergroup cooperation on intergroup attitudes have received sustained empirical interest. One approach emphasizes how intergroup cooperation fundamentally changes the functional relationship between groups; another approach focuses on how cooperation transforms the ways people think and feel about other groups, in ways beyond direct functional relations. These are complementary rather than competing theoretical perspectives.

### Cooperation and Functional Relations Between Groups

In sociology as well as psychology, theories based on functional relations often point to competition as a fundamental cause of intergroup prejudice and conflict. Realistic group conflict theory (Bobo, 1999; Campbell, 1965; Sherif, 1966), for example, posits that perceived group competition for resources produces efforts to reduce the access of other groups to the resources. One of the challenges for intergroup relations is that, even in the absence of direct evidence, people typically presume that members of other groups are competitive and will hinder the attainment of their goals (Fiske, 2000). Intergroup cooperation, therefore, can undermine competitive perceptions and change the intergroup relationship from negative to positive interdependence.

This process was illustrated in a classic work by Sherif, Harvey, White, Hood, and Sherif (1961). In 1954 Sherif and his colleagues conducted a field study on intergroup conflict in an area adjacent to Robbers Cave State Park in Oklahoma (USA). In this study, twenty-two 12-year-old boys attending summer camp were randomly assigned to two groups (who subsequently named themselves Eagles and Rattlers). Over a period of weeks they became aware of the other group’s existence and engaged in a series of competitive athletic activities (tug-of-war, baseball games, and touch football games, with the winning group receiving prizes) that generated overt intergroup conflict. This conflict escalated to

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name-calling (e.g., “sissies,” “cheaters”), food fights in the dining hall, and fistfights around the camp.

To reduce this intergroup conflict, Sherif et al. (1961) introduced *superordinate goals*, outcomes that were mutually desired by both groups but than no one group could accomplish on its own. The key element of the superordinate goals was that the two groups *had* to cooperate to achieve the goals. As one example of a superordinate goal, Sherif and his colleagues arranged for the Rattlers and Eagles to depart in separate trucks for an overnight camping trip. Shortly after the boys arrived at the campsite, the driver of one of the trucks said that he would drive down the road to get food. As planned, though, the truck would not start. The boys became hungrier. The boys tried, but neither group alone could move the truck; together, however, they could. One superordinate goal was not enough to eliminate bias and conflict, but after a few more such activities, the boys became friends.

Since then, psychologists have created different interventions, such as cooperative learning exercises (Cooper & Slavin, 2004; see also Johnson & Johnson, 2000), based on the idea that creating opportunities for members of different groups to work together in situations where they (p. 571) have to cooperate to succeed will improve intergroup attitudes. The jigsaw classroom is one particularly effective strategy that has been used in schools (Aronson, 2004). The jigsaw classroom gets its name from a jigsaw puzzle and is intended to replace competition in classrooms with cooperation. Students are placed into learning groups, with each person having responsibility for a proportion of the information needed to complete a task. Each student thus has a unique and valuable piece of the information that, like a jigsaw piece, is needed to obtain the correct solution.

Intergroup cooperation in the context of the jigsaw classroom improves relations between members of different racial and ethnic groups. In a classic experiment, researchers introduced the intervention to 10 fifth-grade classes in seven different schools in the then recently desegregated public schools of Austin, Texas (Blaney, Stephan, Rosenfield, Aronson, & Sikes, 1977). The experimental classrooms were conducted three days a week for six weeks. At the end of this period, children in jigsaw classroom, compared to students from other classrooms in the same schools, liked others more, both within and outside their own ethnic or racial group (whites, blacks, Latinos), and liked school more. Additional research revealed that experience in a jigsaw classroom increases children’s capacity to understand the perspective of members of other groups (Aronson & Bridgeman, 1979). Given that perspective taking is an antecedent of empathy (Batson et al., 1995), and that empathy promotes a range of prosocial behaviors (e.g., Batson et al., 1995), the jigsaw classroom has the potential to facilitate future intergroup helping and cooperation, and thus have a cascading positive impact on intergroup relations. In addition, evidence with adult participants indicates that cooperation in the style of the jigsaw classroom not only improves attitudes toward the specific interaction partner, but also toward the entire outgroup (Van Oudenhoven, Groenewoud, & Hewstone, 1996).

### Cooperation and Collective Identity

As noted above, creating a sense of common ingroup identity can promote intergroup cooperation (Gaertner & Dovidio, 2000, 2009; Wit & Kerr, 2002). Consistent with our thesis about the bidirectional relationship between intergroup relations and cooperation, research reveals that intergroup cooperation improves intergroup attitudes in part because it facilitates the development of a common ingroup identity. Indeed, Allport (1954) explicitly noted the importance of collective mechanisms in his version of the contact hypothesis: “While it may help somewhat to place members of different ethnic groups side by side on a job, the gain is greater if these members regard themselves as part of a *team*” (p. 489, emphasis added).

Gaertner, Mann, Dovidio, Murrell, and Pomare (1990) obtained direct evidence of the role of intergroup cooperation in improving intergroup attitudes in a controlled experiment. Specifically, Gaertner et al. brought two 3-person laboratory groups together under conditions designed to independently vary (a) emphasis on common versus different group memberships (through structural aspects of the contact situation such as integrated vs. segregated seating, or a new group name for all six participants vs. the original group names; see Gaertner et al., 1989), and (b) the presence or absence of intergroup cooperation (i.e., joint evaluation and reward vs. independent outcomes). After the interaction, participants indicated how much it felt as if all six participants belonged to one (superordinate) group, how much it felt as if the interaction involved two (three-person) groups, how cooperative they perceived the interaction to be, and how positively they evaluated the other participants in ways reflecting their attitudes toward the other people in their three-person group (ingroup) and toward the participants in the other three-person group (outgroup).

Both the intervention designed to make people feel more like one group than two groups and the manipulation of cooperative interdependence (vs. independence) produced more positive intergroup attitudes. Moreover, they did so through the same mechanism. Contextual features emphasizing common “groupness” and cooperative interdependence each increased one-group representations (and reduced separate-group representations), which in turn related to more favorable attitudes toward original outgroup members and lower levels of bias. Consistent with the common ingroup identity model, more inclusive, one-group representations partially mediated the relationship between the interventions and the reduction of bias. However, also supportive of the idea that functional and collective identity approaches are complementary, perceptions of cooperative interdependence continued to exert a significant direct influence on favorable intergroup attitudes. In subsequent research, Gaertner et al. (1999) further demonstrated that two basic elements of cooperation, interaction and common fate, independently contributed to (p. 572) stronger perceptions of shared group membership with others formerly perceived as outgroup members. Stronger common ingroup identity subsequently produced more positive intergroup orientations.

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### Cooperation, Functional Group Relations, and Social Identity

Brown and Hewstone (2005) adopted a different perspective on the roles of functional, cooperative interdependence and social identity in promoting more positive intergroup relations. The mutual intergroup differentiation model, introduced by Hewstone and Brown (1986), posits that intergroup relations become more positive when group identities remain mutually differentiated, with separate group identities remaining salient (rather than de-emphasized or replaced by a common ingroup identity) but within the context of cooperative intergroup interaction. This framework identifies two processes that operate synergistically to produce more positive intergroup attitudes and relations. First, the cooperative intergroup relationship reduces intergroup threat and, consequently, leads to lower levels of intergroup bias toward members involved in the cooperative relationship. Second, the salience of intergroup boundaries provides an associative mechanism through which changes in outgroup attitudes that occur during intergroup contact can generalize to the outgroup as a whole.

Supportive of the mutual intergroup differentiation model, several studies have demonstrated that positive contact produces more generalized reductions in bias toward the outgroup when people are aware of the intergroup, rather than the interpersonal, nature of their cooperative interaction (see Kenworthy, Turner, Hewstone & Voci, 2005; Pettigrew, 1998). Evidence in support of this approach (see also Brown & Hewstone, 2005) comes from the results of an experiment by Brown and Wade (1987) in which work teams composed of students from two different faculties engaged in a cooperative effort to produce a two-page magazine article. When the representatives of the two groups were assigned separate roles in the team task (one group working on figures and layout, the other working on text), the contact experience had a more positive effect on intergroup attitudes than when the two groups were not provided with distinctive roles (see also Deschamps & Brown, 1983).

In addition, in terms of attitudes toward the outgroup, cooperation more effectively reduces prejudice when the partner is perceived as more typical of the group (Brown, Eller, Leeds, & Stace, 2007; Desforges et al., 1991). The moderating effect of typicality, however, occurs primarily when the outgroup is perceived as homogeneous rather than heterogeneous (Brown, Vivian, & Hewstone, 1999). Perceptions of typicality reduce the likelihood that group members who demonstrate counterstereotypic qualities will be seen as exceptions, which can be discounted, or as representing a subtype of the group, leaving the overall group stereotype intact and outgroup evaluation largely unaffected (Hewstone, 1994).

Again illustrating the complementary roles of cooperative functional interdependence and common ingroup identity, Dovidio, Gaertner, and Validzic (1998) found that cooperative interdependence between groups can also create an overarching superordinate identity even while separate subgroup identities remain salient. In this study, two three-person groups of participants were presented with a task, determining how they could salvage items from a plane crash to help survive under wintry conditions. When the groups had



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different and complementary roles—with one group prioritizing items if the groups stayed with the plane and another group selecting the best items if the groups attempted to hike to safety—the groups developed a common group identity without relinquishing their separate group identities. Supportive of other work on the common ingroup identity model, these feelings of superordinate identity mediated the effect of the cooperative relationship on positive intergroup orientations.

In summary, in this section, we have reviewed evidence demonstrating that intergroup cooperation improves intergroup attitudes. One main reason why intergroup cooperation improves intergroup attitudes and reduces bias is because cooperation fundamentally changes the relationship between groups. In the case of the jigsaw classroom, for example, encouraging members of different groups to cooperate changed the status quo from one in which children segregated themselves along racial group lines to one in which they worked interdependently to achieve mutual goals (see Aronson, 2004). Another basic reason why intergroup cooperation improves intergroup relations is because it changes how people conceive of their group identity. For example, work on the common ingroup identity model showed that cooperation with an outgroup shifts people's conceptions such that they are more likely to perceive the ingroup and outgroup as belonging to one group (see Gaertner & Dovidio, 2000, 2009).

**(p. 573)** Work on the mutual intergroup differentiation model (Brown & Hewstone, 2005) further reveals how positive functional relationships between groups and social identity can operate jointly to improve intergroup attitudes. However, in contrast to the common ingroup identity model, this model emphasizes the value of maintaining separate-group identities in conjunction with cooperative intergroup interdependence. Cooperation changes the nature of the intergroup relationship, reducing perceptions of intergroup threat and thereby improving intergroup attitudes. These positive effects of cooperation are then more likely to generalize to the entire outgroup when boundaries between groups are recognized, rather than minimized. These different approaches represent the varied, and potentially complementary, ways intergroup cooperation facilitates more positive intergroup attitudes

## Future Directions

Given the broad range of cooperative (see Parks's chapter in this publication) and prosocial behaviors (see Nadler's chapter in this publication) extensively studied and the traditionally central role of cooperation in some of the most important research and theory on intergroup relations, the literature on intergroup cooperation is surprisingly limited. Nevertheless, the current literature yields several consistent conclusions. In this concluding section, we summarize and synthesize the research on the antecedents and consequences of intergroup cooperation, and then use this integrative analysis to identify promising directions for future research.

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As the first part of this chapter illustrated, cooperation between groups is not only more difficult to achieve and sustain than cooperation between individuals, but the underlying dynamics may also be different. Work on the interindividual-intergroup discontinuity effect, which represents probably the most extensive program of research on the topic, has found that people are much less cooperative when acting as members of groups rather than as individuals (Schopler & Insko, 1992; Wildschut & Insko, 2007). This discontinuity effect is explained by the fear and greed aroused when confronting an outgroup in a mixed-motive game, and this effect is quite resistant to intervention.

Despite the challenges of achieving intergroup cooperation, the impact of intergroup cooperation for improving intergroup relations is substantial. In addition, two classic works in intergroup relations—Sherif et al.'s (1961) Robbers Cave study and Allport's (1954) formulation of the contact hypothesis—featured intergroup cooperation centrally. The substantial legacy of research on intergroup contact, including hundreds of studies on contact with a range of stigmatized groups, continues to emphasize the importance of intergroup cooperation in this process.

Moreover, studying intergroup cooperation integratively, considering both factors that promote intergroup cooperation and the consequences of cooperation on intergroup relations, offers promising new insights about key elements and motivational processes. Two basic processes are particularly relevant for understanding the antecedents and consequences of intergroup cooperation: functional relations and collective identity (Esses, Jackson, Dovidio, & Hodson, 2005). Intergroup cooperation is fundamentally an instrumental behavior reflecting utilitarian consideration of the relative costs and benefits of cooperating or not cooperating. Collective identity relates to the psychological impact of social categorization (Dovidio & Gaertner, 2010) and the motivational processes associated with social identity (Tajfel & Turner, 1979). Both of these influences operate jointly in determining intergroup cooperation.

While variables like the payoff matrix (see Parks's chapter) figure into the utilitarian cost-reward "calculations," antecedents of both intergroup and interindividual cooperation, the greater inherent competitiveness (Sidanius & Pratto, 1999) and the fear and greed (Wildschut & Insko, 2007) involved in intergroup relations increase the overall weight of associated costs. Those costs make intergroup cooperation less likely and affect how the actions of potential cooperative partners are interpreted. People are more attuned to negative or threatening behaviors by outgroup members than by ingroup members (Vorauer, 2006). In addition, they tend to attribute behaviors perceived to be negative to stable group-based qualities while dismissing positive behaviors by outgroup members as situationally based (Hewstone, 1990) or even intentionally deceptive (Dovidio, Gaertner, Kawakami, & Hodson, 2002). Thus, thinking of others in terms of intergroup boundaries also influences the ways that potential costs and benefits are interpreted and consequently weighed, further making intergroup cooperation less likely than interindividual cooperation, even given objectively similar costs and benefits. As the Robbers Cave study demonstrated, achieving intergroup cooperation may require particularly strong incen-

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tives, such as superordinate goals in which people must realize that a mutually (p. 574) desirable goal can only be achieved by cooperation between groups.

Alternatively, cooperation can be facilitated by changing salient group memberships, from an original emphasis on the ingroup-outgroup membership distinction to a common superordinate identity (Gaertner & Dovidio, 2000, 2009). Creating a common ingroup identity not only eliminates barriers to cooperation, it can also facilitate more cooperation than what typically occurs between individual strangers. People are more trusting of ingroup members than outgroup members or individual strangers (Foddy et al., 2009), and their needs become more coordinated as they see themselves as interchangeable representatives of their group (Abrams & Hogg, 2010).

Similarly, functional and identity influences are also critically involved in the intergroup consequences of cooperation between groups. When cooperation has positive outcomes, positive affect associated with success may directly transfer to outgroup members involved in the cooperative achievement and favorably influence interpretations of their character and actions (Forgas, 1995), and it may generalize to other outgroup members, particularly when group membership is salient (Brown & Hewstone, 2005). Moreover, the very act of cooperating with members of another group, even before an outcome has been achieved, can improve intergroup attitudes as people strive to resolve dissonance between past intergroup beliefs and current interdependent experiences (Leippe & Eisenstadt, 1994; Miller & Brewer, 1986). However, when cooperation results in failure, the negative affect generated by this outcome exacerbates feelings of bias (Blanchard et al., 1975). This intergroup bias is particularly strong when outgroup members are seen as the cause of the failure (Hass, Katz, Rizzo, Bailey, & Eisenstadt, 1991), but it occurs even when outgroup members are not seen as being directly at fault (Fein & Spencer, 1997).

Intergroup cooperation can also improve relations between groups by inducing people to recategorize others within a common ingroup identity. Intergroup cooperation promotes common identity (Gaertner et al., 1990), even among groups that are typically perceived as separate groups (e.g., racial groups or different companies involved in a corporate merger, see Gaertner & Dovidio, 2000, 2009 for reviews). Moreover, once common identity is established, the positive expectations and attributions associated with it (as previously noted) can sustain positive intergroup relations, including intergroup cooperation that further solidifies intergroup harmony. Common identity also promotes processes that are particularly valuable for sustaining cooperation, such as intergroup forgiveness and trust. Wohl and Branscombe (2005) showed that increasing the salience of Jewish students' "human identity," in contrast to their "Jewish identity," increased their perceptions of similarity between Jews and Germans, as well as their willingness to forgive Germans for the Holocaust and their willingness to associate with contemporary German students. A shared superordinate identity has also been shown to affect responsiveness to others. Kane, Argote, and Levine (2005) found that group members were more accepting of a newcomer's innovation when the newcomer shared a superordinate identity with them than when the newcomer did not, and that the strength of superordinate group identifica-

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tion was positively related to the extent to which group members accepted the innovative solution.

Beyond the value of integrating a range of theoretical perspectives and empirical findings, the study of intergroup cooperation can introduce novel perspectives that encourage new directions for research and distinguish it from related phenomena. For example, intergroup cooperation differs fundamentally from intergroup helping. Whereas helping is often a one-time event in which one individual fulfills the needs of another, cooperation involves at least two people working together interdependently to achieve a common goal that will benefit all involved (Dovidio et al., 2006). The particular transactional and reciprocal nature of cooperative interdependence acknowledges the integral value of the contributions of different groups. Even when groups may possess different statuses initially, a cooperative arrangement promotes mutual respect and may challenge the status distinctions that typically characterize intergroup relationships more generally (Sidanius & Pratto, 1999). Also, because cooperation relies on coordinated actions over some period of time, there is more potential for iterative effects of cooperation on subsequent evaluations and cooperative actions than there is for helping, which tends to be episodic.

Although some types of helping can empower lower-status groups to improve their status and establish their autonomy, as Nadler (2002) explains, helping is more commonly a tool for groups to establish or maintain dominance over another group (see also Nadler's chapter in this publication). Helping can have important (p. 575) status-differentiating properties. Groups aspiring to advance or stabilize their status advantages over other groups are particularly likely to offer assistance to other groups and their members when the form of help further advances the dependency of the other group, and thus its lower status (Nadler & Halabi, 2006). Moreover, helping often exacerbates rather than alleviates intergroup conflict. Not only are higher-status groups more inclined to offer dependency-oriented than autonomy-oriented assistance to members of lower-status groups, members of lower-status groups typically respond negatively and with suspicion to such offers, fueling intergroup distrust and tension. Cooperation, then, holds more promise than helping for unmitigated positive effects on intergroup attitudes. Indeed, Worchel, Wong, and Scheltema (1989) found that when groups had a competitive history, offers of help increased negative intergroup attitudes, whereas an offer of cooperation by a member of the other group improved attitudes toward the group.

Hierarchical relations between groups represent a fundamental organizing principle across culture and across time. According to social dominance theory (Sidanius & Pratto, 1999), because of the evolutionary advantage of hierarchical relations, groups are hierarchically organized within societies and are motivated to maintain their higher status and power over other groups. Conceptualizing cooperation as an essentially status-diffusing intergroup behavior can thus offer critical insights concerning both the factors that will promote or interfere with the initiation of intergroup cooperative relations and its maintenance over time, as well as a novel perspective on the role of intergroup cooperation for improving intergroup relations.

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Social identity theory (Tajfel & Turner, 1979) proposes that people possess a strong motivation to promote the status of their group because they derive personal esteem from their group membership. These motivations are particularly strong and influential when intergroup status relations are perceived to be unstable and illegitimate (Bettencourt, Dorr, Charlton, & Hume, 2001). Thus, when status relations are more insecure, members of higher-status groups may avoid cooperation, which reduces status differentiation, and prefer to engage in helping—particularly dependency-oriented helping—to stabilize the status quo of hierarchical group relations. By contrast, under these conditions, members of lower-status groups may be particularly motivated to engage in cooperative intergroup interaction to establish their more equivalent status in a valid and tangible way. Thus, social identity theory can help to identify additional factors, such as group status and the security of status relations, that can inform future work about when and why intergroup cooperation is more difficult to achieve and sustain than cooperation between individuals (i.e., the interindividual-intergroup discontinuity effect; see Wildschut & Insko, 2007).

Recent research on the effectiveness of intergroup contact has yielded provocative findings suggesting that even though intergroup contact often promotes more positive attitudes among majority-group members toward members of minority groups, these more positive attitudes do not necessarily translate into action to improve the welfare of the other group or address unfair intergroup disparities (Dixon, Durrheim, & Tredoux, 2007). Much of this work, however, does not differentiate between the different components of positive intergroup contact highlighted by contact theory (Pettigrew & Tropp, 2011). Indeed, many of the studies on intergroup contact do not involve direct reciprocal cooperation between members of different groups (Pettigrew & Tropp, 2006). It is possible that contact situations that include cooperative interdependence, compared to those that involve favorable or frequent contact without such interdependence, may be more likely to improve not only intergroup behaviors but also facilitate actions that promote fairness and equity—fundamental principles in cooperation.

Consistent with our proposal about the potential special qualities of intergroup cooperation beyond other aspects of positive contact, having a friend from another group—a relationship that inherently involves intergroup cooperation—is one of the most potent factors for improving intergroup attitudes and relations more broadly (Pettigrew, 1998). In a meta-analysis of the cross-group friendship literature, Davies, Tropp, Aron, Pettigrew, and Wright (2011) investigated the features of friendship that were most effective for improving intergroup attitudes. Spending more time together and greater self-disclosure, which reflect deeper reciprocal relationships and more cooperative engagement, were particularly important factors. These factors also implicate elements of mutual interdependence and pursuit of common goals, two key features of cooperation (Dovidio et al., 2006). Thus, friendships that most directly involved elements of cooperation were particularly effective at improving intergroup attitudes.

**(p. 576)** A second stimulating finding from the intergroup contact literature is that contact is less effective at improving the attitudes of minority-group than majority-group members. One explanation that has been proposed is that in intergroup interactions majority-

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group members typically direct the discussion to topics of superficial commonality to reduce tension (Saguy, Dovidio, & Pratto, 2008). This type of contact may satisfy the basic needs of majority-group members to be liked and accepted but fail to meet the needs of minority-group members for respect and empowerment (Bergsieker, Shelton, & Richeson, 2010; Shnabel, Nadler, Canetti-Nisim, & Ullrich, 2008), leaving minority-group members less satisfied by the exchange.

Although Tropp and Pettigrew (2005) note that contact under the optimum conditions specified in the contact hypothesis (Allport, 1954) was less effective for improving the attitudes of minority-group members than majority-group members, few of these interactions focused on cooperative, reciprocal exchanges. Because such exchanges require the resources of both groups, minority-group members likely feel valued and are valued by majority-group members. Moreover, reciprocal cooperative actions establish trusting and trustworthy relations, addressing basic issues of mistrust that minority-group members experience in intergroup interactions (Dovidio et al., 2002) and which lead minority-group members to discount even apparently positive overtures by majority-group members because of their suspicions (Johnson, Ashburn-Nardo, Spicer, & Dovidio, 2008). Indeed, graduated, reciprocal cooperation has long been recognized as a key process for improving relations between groups that have been in conflict, in which both parties feel vulnerable (Kelman, 2005). Thus, intergroup cooperation may hold particular promise for improving the attitudes of minority-group members toward majority-group members, and for laying the foundation for stable, productive relations into the future.

In conclusion, understanding intergroup cooperation and the processes that can inhibit and facilitate it can offer novel insights into the dynamics of prosocial behavior and intergroup relations (see also Parks and Nadler). The study of cooperation across group boundaries, although studied less extensively than cooperation within groups or between individual strangers, is particularly promising because of the powerful way that the nature of intergroup relations shape whether people will cooperate or not, and how cooperation, once achieved, can positively transform intergroup relations. Moreover, intergroup cooperation has its effects through two basic and complementary psychological processes: direct functional effects and collective identity. Successful cooperation is rewarding and thus reinforcing. It also facilitates the formation of a common superordinate identity, which produces a stronger social bond and elicits greater trust and trustworthiness. Thus, although a substantial portion of the intergroup relations literature emphasizes conflict and the factors that escalate it, a focus on intergroup cooperation suggests new avenues of research (e.g., involving the influence of status) and, practically, can guide interventions to improve relations between groups.

Cooperative intergroup relations are essential to the effective functioning of complex organizations and societies. Consequently, intergroup cooperation holds the key to reducing intergroup conflict. Although it is unrealistic to expect that cooperation can fully eliminate intergroup tension and conflict, it is also important to note that some forms of conflict, if grounded in mutual respect and managed properly, can produce novel resolutions that enhance creativity and collective adaptability (Dovidio, Saguy, & Shnabel, 2009). In-

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tergroup cooperation can facilitate the development of the kinds of coordinated, mutually respectful relations between groups that promote stable reconciliation and encourage the trust to value long-term collective good over short-term personal gain, which will ultimately benefit members of all groups.

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