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## The Perception of Outgroup Threat Content and Activation of the Out-Group Schema

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One of the enduring questions in social science relates to whether decent individuals are prone to behave indecently when banded together in a group. Around the turn of the twentieth century, Le Bon (1895) formulated the first systematic analysis of this problem. He proposed that shared membership in a group puts people “in possession of a sort of collective mind” (p. 27). This collective mind was thought to be primitive, irrational, and destructive. Floyd Allport (1924) is well known for his criticism of Le Bon’s crowd mind concept. Nevertheless, in his later writings, Allport proposed that “even if we got rid of the *crowd mind*, the problem of describing the differential of crowd-like behavior . . . would remain” (1962, p. 6).

In an attempt to determine when and why intergroup relations are more antagonistic and competitive than interindividual relations, research on interindividual-intergroup discontinuity has studied the “differential of crowd-like behavior” in the context of mixed-motive matrix games, like the prisoner’s dilemma game (PDG). This research was guided by the assumption that the

greater competitiveness of groups arises from a confluence of mechanisms that can be studied empirically rather than from the somewhat esoteric crowd mind postulated by Le Bon (1895) (e.g., Insko, Schopler, Hoyle, Dardis, & Graetz, 1990; Insko et al., 1987, 1988, 1992, 1993, 1994, 1998, 2001; McCallum et al., 1985; Schopler, Insko, Graetz, Drigotas, & Smith, 1991; Schopler et al., 1993, 1994, 1995, 2001).

The typical experiment in this research program was conducted in a suite in which individuals or groups were located in different home-rooms that were connected to a central room. After examining a version of the PDG matrix provided for a given trial, individuals or group representatives (or in some instances entire groups) went to the central room to discuss possible action with their opponent (or opponents) and then returned to their home-rooms, where they made a choice. In the intergroup condition, the choice was made by the group as a whole. Although there were a number of studies involving just one trial, typically the procedure was repeated for 10 trials. Studies following this procedure have typically found a significant and descriptively large interindividual-intergroup discontinuity effect, that is, a tendency in the context of mixed-motive situations for intergroup interactions to be more competitive and less cooperative than interindividual interactions (Wildschut, Pinter, Vevea, Insko, & Schopler, in press).

Given the robustness of the discontinuity effect, we suspect that it is multiply determined. Three hypotheses have been advanced to account for the discontinuity effect. The schema-based distrust (or fear) hypothesis is based on the tendency to distrust other groups more than other individuals. It proposes that intergroup interactions tend to be more competitive than interindividual interactions because the anticipation of interacting with another group activates a negative outgroup schema, consisting of learned beliefs that other groups are competitive, deceitful, untrustworthy, and hostile (Insko et al., 1990; Insko & Schopler, 1998). The social support hypothesis is based on the fact that group members can provide each other with social support for the pursuit of immediate self-interest, in contrast to the lack of such social support available to individuals (Wildschut, Insko, & Gaertner, 2002). Finally, the identifiability hypothesis is based on the person's assumption that, in an interindividual interaction, he or she can be identified and held accountable for self-interested behavior, and the person's assumption that in an intergroup setting the opponent's ability to assign personal responsibility for self-interested behavior is somewhat limited. Stated more succinctly, group membership provides a shield of anonymity (Schopler et al., 1995).

In the remainder of this chapter, we review past and present research on the schema-based distrust, or fear, explanation of the interindividual-intergroup discontinuity effect. Note that in postulating the existence of general distrust of outgroups, we are not articulating a new idea. Campbell (1967), for instance, argued that "if most or all groups are in fact ethnocentric, then it becomes an 'accurate' stereotype to accuse an outgroup of some aspects of ethnocentrism"

(p. 823). Campbell went on to describe a “universal” outgroup stereotype, “of which each ingroup might accuse each outgroup, or some outgroup, or the average outgroup” (p. 823). From the perspective of the observer, this universal stereotype of the outgroup includes dishonesty, competitiveness, and hostility toward the observer’s ingroup. An interesting historical illustration of such schemalike expectations occurs in Plato’s *Republic* (1891), where Polemarchus defends the principle that “justice is the art which gives good to friends and evil to enemies” (p. 7). Highly reminiscent of this traditional maxim of Greek morality, Tajfel (1970) interpreted the ingroup favoritism demonstrated in early minimal group paradigm experiments as flowing from a learned “generic norm” of behavior toward outgroups, “a norm dictating that we “act in a manner that discriminates against the outgroup and favors the ingroup” (pp. 98–99).

This chapter is divided into two parts. The first part is concerned with the content of the outgroup schema. It highlights six categories of evidence indicating that the outgroup schema consists of learned beliefs and expectations that other groups are competitive, deceitful, untrustworthy, and hostile (see also Insko & Schopler, 1998). The part section examines the antecedents of outgroup, schema activation.

## THE OUTGROUP SCHEMA: CONTENT

### *Discontinuity with the PDG-Alt Matrix*

The PDG involves an interaction between two sides (individuals or groups), usually over monetary outcomes. Each side can choose between a cooperative (*X*) and a noncooperative or competitive (*Z*) choice, and both sides’ outcomes are determined by the combination of their respective choices. A sample PDG matrix is presented in Figure 18.1. That this is a PDG matrix can be verified by

	X	Z
X	50	30
Z	60	40

FIGURE 18.1. A PDG matrix

noting that the outcomes of the column player, for example, decrease in rank order across cells from the upper right (ZX) to upper left (XX) to lower right (ZZ) to lower left (XZ). Note further that the average outcome in the lower left (XZ) and upper right (ZX) cells is lower than the outcome in the upper left cell (XX). This requirement guarantees that the players cannot receive higher outcomes by taking turns selecting X and Z than by both selecting X. The dilemma faced by both sides is reflected by the fact that, on any given trial, each side can maximize its outcomes by selecting the competitive Z alternative regardless of the alternative selected by the other side. Yet, paradoxically, when both sides select Z, both achieve outcomes that are lower than the outcomes they could have achieved by mutual X selections. As Ridley (1996) points out: "Broadly speaking any situation in which you are tempted to do something, but know it would be a great mistake if everybody did the same thing is likely to be a prisoner's dilemma" (pp. 55–56).

Given this outcome array, why might a player select Z, the competitive choice, instead of X, the cooperative choice? There are at least two possible motives. One motive for selecting Z is the self-interest, or greed, that is associated with receiving the highest possible outcome (60 for the matrix in Figure 18.1). Another motive is the fear of receiving the lowest possible outcome (30 for the matrix in Figure 18.1). Theoretically, greed is based on the expectation that the opponent will choose X, and is therefore vulnerable to exploitation. Fear, on the other hand, is based on the expectation that the opponent will choose Z, and therefore poses a threat.

In terms of interdependence theory (Kelley & Thibaut, 1978), self-interest, or greed, refers to a concern for maximizing one's own absolute outcomes (max own), a concern for maximizing one's own outcomes relative to the outcomes of the opponent (max rel), or both. Similarly, fear refers to a concern for avoiding minimal outcomes in an absolute sense, a concern for avoiding outcomes that are lower than the outcomes of the opponent, or both. Thus, the distinction between max own and max rel is orthogonal to the distinction between greed and fear. This is important because it demonstrates that greed and fear can refer to a concern with the tangible outcomes emphasized by Campbell (1965) in realistic conflict theory, the relativistic outcomes emphasized by Tajfel and Turner (1979) in social identity theory, or both (see Insko et al., 1992, for an empirical investigation of this issue).

The fact that the Z choice in a two-choice PDG confounds fear and greed interferes with the goal of studying the independent contributions of fear and greed to interindividual-intergroup discontinuity. To avoid the confounding of fear and greed, Insko et al. (1990) developed a new three-choice matrix in which each player has an alternative to either cooperating or competing. An example of this PDG-Alt matrix is presented in Figure 18.2. The four corner-cells of this matrix constitute a PDG matrix. For the remaining cells, which make up the center column and row of the matrix, the outcomes for both players are exactly intermediate to the outcomes in the upper-left cell and the outcomes in the

	X	Y	Z
X	50 50	45 45	60 30
Y	45 45	45 45	45 45
Z	30 60	45 45	40 40

FIGURE 18.2. A PDG-Alt matrix

lower-right cell. On the PDG-Alt, choosing Y results in intermediate outcomes regardless of the opponent's choice, and is therefore referred to as "withdrawal." Given the expectation that the opponent is competitive and will choose Z, the Y choice maximizes own outcomes. Given the expectation that the opponent is cooperative and will choose X, however, the Z choice maximizes own outcomes. If a player chooses Z on the PDG-Alt matrix, and thus avoids the safe Y choice, this likely reflects an attempt to maximize self-interest, or greed, at the expense of a vulnerable opponent.

The first category of evidence for the outgroup schema comes from four studies on interindividual-intergroup differences within the context of the PDG-Alt (Insko et al., 1990, 1993; Schopler et al., 1993, 1995). The schema-based distrust, or fear, hypothesis predicts that on the PDG-Alt matrix groups will make more withdrawal choices than will individuals. The social support and identifiability hypotheses predict that, because groups are greedier than individuals, groups will compete more than individuals even when, as on the PDG-Alt matrix, a withdrawal option is available. Consistent with the idea that the discontinuity effect is rooted in the greater fear and greed in intergroup relative to interindividual interactions, all of the above-referenced PDG-Alt studies found that groups made significantly more withdrawal and competitive choices than did individuals.

Given our present concern with the perception of outgroup threat, the study conducted by Insko et al. (1993) is of special interest. This study investi-

gated the effect of communication on interindividual-intergroup discontinuity within the context of a PDG-Alt matrix. Before summarizing the results of the study, we will briefly introduce its theoretical basis. As mentioned earlier, interindividual-intergroup discontinuity has typically been examined within the context of mixed-motive matrix games in which communication between players is allowed. In some studies the communication between groups involved group representatives (e.g., Schopler et al., 1993), in some studies the communication involved a meeting between all members of both groups (e.g., Insko et al., 1987), and in some studies the communication involved the use of an intercom system (e.g., Insko et al., 1993). A frequent outcome of these discussions between players was an agreement to cooperate on the upcoming trial, or at least an assertion by one side or the other that they would cooperate on the upcoming trial. For example, coding of tape-recorded intercom discussions in a one-trial experiment with the PDG-Alt matrix indicated that there was a consensus to cooperate in 85% of the intergroup sessions and 76% of the interindividual sessions (Schopler et al., 1995).

The schema-based distrust hypothesis postulates a schema consisting of learned beliefs that intergroup relations are competitive, unfriendly, deceitful, and aggressive, which dictates distrust of outgroups. The influential program of research on attitudes and communication conducted at Yale University in the 1950s identified trustworthiness as an important component of source credibility (Hovland, Janis, & Kelley, 1953), and subsequent research has demonstrated that the trustworthiness of a source affects the persuasiveness of communication (Walster, Aronson, & Abrahams, 1966). This implies that, if there is a schema dictating distrust of an outgroup, communication between groups should be less credible and persuasive than communication between individuals. Hence, the presence or absence of communication between groups should have a smaller impact on cooperation than should the presence or absence of communication between individuals. In other words, the schema-based distrust hypothesis implies that communication between individuals should produce a greater increase in cooperation than should communication between groups.

Insko et al. (1993) tested the predicted groups versus individuals by communication versus no-communication interaction effect on cooperative choices within the context of a one-trial experiment with the PDG-Alt matrix. Communication was manipulated by varying whether individuals and groups did or did not have the opportunity to communicate with the opponent through an intercom system. Results indicated that the critical individuals versus groups by communication versus no communication interaction on cooperation was significant. Consistent with the schema-based distrust, or fear, hypothesis, communication produced a greater increase in cooperation between individuals than between groups. In fact, the descriptively small effect of communication in intergroup interactions was not significant. Cooperative intentions communicated between groups did not increase cooperation, presumably because neither group perceived the other group's message as credible.

### *Explicit Beliefs and Implicit Association Regarding Intergroup Interactions*

We define a schema as a set of beliefs serving to organize and guide memory for past events and expectations regarding future events. The above-discussed results are consistent with the idea that within the context of mixed-motive matrix games there is more distrust between groups than between individuals. The second category of evidence in fact demonstrates that people have conscious beliefs and unconscious associations indicating that outgroups are competitive and untrustworthy. A study by Hoyle, Pinkley, and Insko (1989; Study 1) examined the difference between college students' perceptions of interpersonal and intergroup social interactions. Participants rated the extent to which 50 trait adjectives characterized typical interindividual interactions or, in a different condition, typical intergroup interactions. Participants were given illustrations of interindividual or intergroup interactions (e.g., two students in a particular class, two fraternity groups). Factor analytic yielded two seven-item scales. One scale, labeled *agreeableness*, was defined by trait adjectives such as cooperative, trustworthy, and helpful. The other scale, labeled *abrasiveness*, was defined by trait adjectives such as competitive, boastful, and domineering. Results indicated that intergroup interactions were perceived as less agreeable and more abrasive than were interindividual interactions.

Hoyle et al. (1989) measured participants' beliefs about interindividual and intergroup interactions using traditional self-report ratings. More recently, the importance of implicit processes in social cognition has been emphasized. Greenwald and Banaji (1995) define implicit attitudes as "introspectively unidentified (or inaccurately identified) traces of past experience that mediate favorable or unfavorable feeling, thought, or action toward social objects" (p. 8). If the outgroup schema is rooted in people's differentially negative experiences with outgroups, traces of those experiences, in the form of implicit associations, should be observable on measures which do not require participants' awareness or motivation. This hypothesis was investigated by means of the Implicit Association Test (IAT; Greenwald, McGhee, and Schwartz, 1998), a widely used technique for measuring implicit attitudes. The IAT assesses the relative strength of pairs of associations within the context of a word classification task. Participants classify words into appropriate categories using two response keys (e.g., 'd' and 'k'). For the critical trials, each response key corresponds to two categories (e.g., 'd' for FLOWER/PLEASANT and 'k' for INSECT/UNPLEASANT). The relative strength of association between category pairs is measured by comparing the average response time for word classifications under one configuration of category pairs (FLOWER/PLEASANT and INSECT/UNPLEASANT) to the average response time under the other configuration of category pairs (INSECT/PLEASANT and FLOWER/UNPLEASANT). For example, if people have more positive and less negative implicit attitudes about flowers than about insects, then we would expect the average response time to be shorter under



the former configuration than under the latter configuration. This prediction was, in fact, confirmed by Greenwald et al. (1998).

In a series of experiments, Pinter and Insko (2003) investigated implicit and explicit attitudes toward individuals and groups. In one experiment, participants were presented with two IATs. One IAT was designed to assess feelings about individuals and groups using a general evaluative dimension (i.e., pleasantness/unpleasantness). Words were selected for the classification task based on typicality of the categories they represented (e.g., one, single, many, collective, diamond, peace, war, evil). The second IAT was designed to assess relative beliefs about individuals and groups, and included agreeableness and abrasiveness adjectives used previously by Hoyle et al. (1989). Results from both IATs were consistent with the existence of a negative outgroup schema. Participants more quickly classified words when the response keys paired words representing the individual and group categories with words representing the pleasant and unpleasant categories, respectively. In addition, explicit measures showed the expected results favoring individuals and were related to the implicit measures.

The second study was a replication of the first study, which also included parallel explicit versions of the implicit measures. The results for the implicit measures were consistent with those of the first study (average  $d = .87$ ). More important, the results of the explicit measures converged with the results of the implicit measures.

Two additional experiments used an alternative response latency measure, the Go/No-Go Association Task (GNAT; Nosek & Banaji, 2001), to replicate and extend the preliminary findings. Results from these experiments were consistent with predictions and suggestions that people hold—independently—both negative implicit attitudes toward groups and positive implicit attitudes toward individuals. Together, the results of these experiments suggest that, regardless of phenomenological character of the attitude, perceivers regard groups more negatively than individuals.

### *Expectations of Competitive Outgroup Behavior*

The outgroup schema hypothesis proposes that intergroup interactions are more competitive than interindividual interactions because participants expect other groups to be more competitive than other individuals. The third category of evidence consists of five studies that jointly indicate that such differential expectations indeed exist (Hoyle et al., 1989; Insko et al., 1993; Insko et al., 2001; Schopler et al., 1995; Schopler et al., 2001). In a follow-up to the above-described study of differential beliefs regarding other groups and other individuals, Hoyle et al. asked participants to rate the expected characteristics of an anticipated series of interactions using the previously developed *agreeableness* and *abrasiveness* scales. One independent variable related to whether partici-



pants expected to participate in the interaction as an individual or as a group member. A second independent variable related to whether participants expected to interact with an individual or with a group. The interactions were described to the participants as “everyday social situations,” but they never actually occurred. Results revealed no significant effects for whether the participant anticipated interacting as an individual or as a group member. However, there was a significant main-effect for the anticipation of interacting with an individual or a group. Interactions with a group were anticipated to be more abrasive than were interactions with an individual. Although the effect for agreeableness was in the predicted direction (i.e., more anticipated agreeableness for interactions with an individual), it was not significant.

Participants in the Hoyle et al. (1989) study were told that they would participate in an experiment concerning the ways in which people interact in everyday social situations. As described above, participants anticipated everyday social interactions with groups to be more abrasive than interactions with individuals, regardless of whether they anticipated acting as individual or as a group member. Are these differential expectancies of individual and collective others also evident in the PDG setting? Four studies are relevant to this question. In the previously described study testing—and confirming—the prediction that communication between individuals produces a greater increase in cooperation than does communication between groups, Insko et al. (1993) also assessed participants’ expectancies regarding the decision of their opponent. This experiment involved one trial with the three-choice PDG-Alt matrix, and participants’ expectations were assessed by asking them to distribute 100 percentage points among the three PDG-Alt alternatives according to the likelihood that the opponent had chosen or would choose X, Y, or Z. This assessment was taken either immediately after the practice trials (“before choice”) or immediately after the choice, but before participants received feedback regarding the opponent’s choice (“after-choice”). Note that because the “before-choice” assessment occurred before the manipulation of communication was introduced, no effect for the communication manipulation could have occurred in this condition. For our present purposes, we therefore focus on the results for the “after-choice” assessment of expected competition and expected cooperation. We proposed earlier that if there is a schema dictating distrust of an outgroup, communication between groups should be less credible and persuasive than communication between individuals. If this is true, communication between individuals should lead to a stronger decrease in expected competitiveness and a stronger increase in expected cooperation than communication between groups. Consistent with this prediction, analysis of the “after-choice” assessments of expected competitiveness indicated a significant individuals versus groups by communication versus no communication interaction. For individuals, communication decreased expected competitiveness significantly but for groups, this effect was nonsignificantly reversed. Analysis of the “after-choice”

assessment of expected cooperation also indicated a significant individuals versus groups by communication versus no communication interaction. For both individuals and groups, communication increased expected cooperation significantly but the effect was more pronounced for individuals than for groups.

The second experiment (Schopler et al., 1995) relevant to differential expectancies of individual and group opponents within the context of matrix games also involved one trial with the PDG-Alt matrix, and included an assessment of expectancies after participants made their choice but before they learned of the opponent's choice. The results indicate that individuals expected less competition, more cooperation, and less withdrawal choices from their opponents than did groups. The third experiment (Schopler et al., 2001) involved one trial with the PDG matrix. Individuals expected more cooperation from their opponents than did groups.

The fourth experiment (Insko et al., 2001) also involved one trial with the PDG matrix. In addition to a manipulation of interindividual versus intergroup interaction, this experiment included a manipulation of anticipated future interaction. Approximately half of the participants were told that they would interact for only one trial, whereas the other participants were told that they would interact for multiple trials. Expectancies were again assessed after participants made their choice, but before they learned of the opponent's choice. A significant individuals versus groups by single versus multiple trials interaction indicated that the greater distrust in intergroup relative to interindividual interactions was more pronounced in the single trial condition than in the multiple trials condition. However, the smaller difference between interindividual and intergroup interactions in the multiple trial condition remained significant. Anticipating continued interaction increased trust between groups but not to the level observed between individuals.

#### *Outgroup Fear Expressed in Intergroup Discussions and Retrospective Reasons*

If there is greater distrust between groups than between individuals, we can expect that discussions between groups will include more statements of distrust than will discussions between individuals. The fourth category of evidence is consistent with this expectation. Two studies (Insko et al., 1994; Schopler et al., 1995) examined the content of tape-recorded communication between individuals and groups. In the Insko et al. study, which involved two different *n*-person generalizations of the PDG, the tape-recorded discussion, were coded for both explicit statements of distrust (e.g., "I don't trust you") and implicit statements of distrust (e.g., "Don't cheat on this"). Compared to discussions between individuals, discussions between groups were characterized to a greater extent by statements of both implicit and explicit distrust. Because the Insko et al. study obtained similar results for implicit and explicit statements of distrust,

the two types of statement were combined into a single index of distrust in the Schopler et al. study. This study again found that, compared to discussions between individuals, discussion between groups were characterized to a greater extent by statements of distrust.

The discussion data indicate more expressed distrust between groups than between individuals. These findings are consistent with the results of three studies that assessed participants' own written reasons for their decisions (Insko et al., 2001; Schopler et al., 1995, 2001). In the Schopler et al. (1995) study, coding of participants' open-ended responses revealed that, compared to individuals, groups reported more retrospective distrust and less retrospective trust. Furthermore, retrospective distrust statements were significantly correlated with cooperative choices (-.48) and withdrawal choices (.50). Retrospective trust statements were significantly correlated with cooperative choices (.82) and competitive choices (-.58). Likewise, both the Insko et al. (2001) and the Schopler et al. (2001) studies found that groups reported more retrospective distrust than did individuals. Consistent with the idea that distrust, or fear, mediates the discontinuity effect, both studies demonstrated the interindividual-intergroup discontinuity effect was significantly reduced when distrust was held constant. In agreement with the schema-based distrust hypothesis, there is compelling evidence across studies that groups make more retrospective distrust statements than do individuals, and that these statements are associated with PDG choice behavior.

### *Differential Memory for Interindividual and Intergroup Interactions*

Why do participants believe and expect relations between groups to be more competitive than relations between individuals? One possibility is that participants recall intergroup relations as more competitive than interindividual relations. The fifth category of evidence concerning the differential distrust of groups and individuals comes from participants' memory for intergroup and interindividual relations.

Three studies by Pemberton Insko and Schopler (1996) that investigated The first two of these investigations required participants to recall and describe in brief phrases either intergroup interactions or interindividual interactions. Next, participants rated the interactions they described on the *abrasiveness* and *agreeableness* scales of Hoyle et al (1989). Examples of recalled intergroup interactions were: "church groups at camp," "UNC vs. Duke basketball game," and "Pro-Life vs. Pro-Choice groups." Examples of recalled interindividual interactions were: "Christine and I talking at the mall," "Shannon and I camping last weekend," and "stranger and I stuck in the elevator." Consistent with the results of Hoyle et al., neither study found significant effects for type of recalled interaction on the items of the agreeableness scale. However, both experiments found significant effects for type of recalled interaction on all items of the

abrasiveness scale, such that the intergroup interactions were rated as more abrasive than the interindividual interactions. In both studies these effects remained significant after interactions relating to sports and games were removed from the data set and can therefore not be attributed to the tendency for competitive intramural sports to be between groups rather than between individuals.

In the third study, participants were asked to recall interactions in one of four categories: cooperative interindividual, cooperative intergroup, competitive interindividual, and competitive intergroup. Thus, there were two independent variables: cooperative versus competitive interactions and interindividual versus intergroup interactions. The dependent variable was the number of recalled interactions. Analysis of the number of recalled interactions revealed two significant effects. First, participants recalled significantly more interindividual than intergroup interactions, presumably because the former occurred much more frequently than the latter. Second, and of greater importance, there was an interaction indicating that the tendency for greater recall of interindividual than of intergroup interactions was more pronounced for positive interactions than for negative interactions. Follow-up tests of simple effects indicated that participants recalled more competitive than cooperative intergroup interactions, and marginally more cooperative than competitive interindividual interactions. The interaction effect remained significant after interactions relating to sports and games were removed from the data set.

### *Differential Experience with Interindividual and Intergroup Interactions*

The above-described studies of Pemberton et al. (1996) demonstrated that interindividual interactions are recalled predominately as cooperative, whereas intergroup interactions are recalled predominately as competitive. One possible explanation for this finding is that people actually experience intergroup relations as more competitive than interindividual relations. Our sixth category of evidence is consistent with this possibility. It consists of two studies with a modified version of the Rochester Interaction Record (RIR; Reis & Wheeler, 1991) reported by Pemberton et al. (1996).

In the first study, participants kept a record of their interactions over a one-week period. They were trained to distinguish between five types of interaction: one-on-one interactions, within-group interactions, one-on-group interactions, group-on-one interactions, and group-on-group interactions. One-on-group and group-on-one interactions were distinguished by whether the participant interacted with a group (one-on-group) or whether a group in which the participant was a member interacted with an individual (group-on-one). The meaning of the term *group* was conveyed to participants through examples. Participants classified their interactions and then rated them on separate competitiveness and cooperativeness scales. The prediction was for the

three types of interaction involving groups (one-on-group, group-on-one, and group-on-group) to be rated as more competitive than the two types of interaction not involving groups (one-on-one, and withingroup). In light of past results for beliefs, expectancies, and memories (e.g., Hoyle et al., 1989), no differences were expected among the five types of interaction on the cooperativeness scale.

Consistent with predictions, the mean rated competitiveness of the three types of interaction involving groups was significantly higher than the mean rated competitiveness of the two types of interaction not involving groups. This difference remained significant after all interactions involving sports or games were eliminated. There were no significant differences among the different types of interaction for rated cooperativeness. These results suggest that a possible explanation for the tendency to recall intergroup relations as more competitive than interindividual relations is that intergroup relations are actually experienced as relatively more competitive.

This brings us to an important point: Schemas involve some abstraction away from the experiences from which they originate (Anderson, 2000; Smith, 1990). Thus, evidence for the existence of a schema is most obviously provided by results that cannot be explained simply by differential experience. In their first RIR study, Pemberton et al. (1996) addressed this issue directly by asking participants, after the week of recording their interactions, to recall as many of their one-on-one, group-on-one, one-on-group, and group-on-group interactions as possible. Subsequently, participants rated the recalled interactions for competitiveness. Mean competitiveness ratings on a 7-point scale for recalled interactions were 2.92 for one-on-one and 4.59 across the three types of interaction involving groups. For recorded interactions, the competitiveness ratings were 2.34 for one-on-one and 3.45 across interactions involving groups. The difference between one-on-one and interactions involving groups was significantly larger for the recalled interactions than for the recorded interactions, suggesting that the memory results were not just a function of experience.

The second RIR experiment used a different procedure. Analogous to Pemberton et al.'s (1996) third memory study described earlier, participants did not rate their interactions but instead categorized each of the five types of interaction as either competitive or cooperative. The dependent variable was the number of recorded interactions in each of the resulting 10 categories over a one-week period. Conceptually replicating the findings of the first RIR experiment, results for the second RIR experiment indicated that the three types of interaction involving groups (one-on-group, group-on-one, and group-on-group) were seen as more competitive than the two types of interaction not involving groups (one-on-one and withingroup). Results remained unchanged after all recorded interactions relating to sports and games were removed from the data set.

Why are intergroup interactions experienced as more competitive than interindividual interactions? There are several possibilities. First, as some of

the reviewed this far research suggests, the beliefs and expectations associated with the outgroup schema can be self-fulfilling. When distrust and suspicion of other groups leads people to approach those groups with some degree of hostility, the other group may have no other option than to reciprocate this hostility, thus confirming the negative beliefs and expectations. Second, as suggested by the social support explanation of the discontinuity effect intergroup interactions may be more competitive because group members can provide each other with social support for the pursuit of immediate self-interest. Third, as suggested by the identifiability explanation of the discontinuity effect intergroup interactions may be more competitive because group membership provides a shield of anonymity. Fourth, as suggested by Schopler et al. (2001) interindividual relations, relative to intergroup relations, may afford greater freedom of choice when it comes to selecting interaction partners. The obvious advantage of having such freedom of choice is that one can choose to interact with cooperative partners and shun competitive partners.

### *Section Summary*

We defined a schema as a set of beliefs serving to organize and guide memory for past events and expectations regarding future events. We proposed that the interindividual-intergroup discontinuity effect is partially rooted in a negative schema of outgroups, consisting of learned beliefs or expectations that intergroup interactions are competitive, unfriendly, deceitful, and aggressive. Six categories of evidence indicated that (1) participants make PDG-Alt choices indicative of more distrust of groups than of individuals; (2) participants believe, at both an explicit and an implicit level, that intergroup interactions are more negative than interindividual interactions; (3) participants expect other groups to act more competitively than other individuals; (4) participants express more distrust of other groups than of other individuals in discussion and written statements; (5) participants remember interactions involving groups as more competitive than interactions not involving groups; and (6) differences in memory for interactions involving groups and interactions not involving groups in part reflect actual differences in experience. Results from the first RIR experiment of Pemberton et al. (1996) suggest that the tendency to remember intergroup interactions as more competitive than interindividual interactions is not purely a function of experience.

## THE OUTGROUP SCHEMA: ACTIVATION

We propose that the beliefs and expectations associated with the outgroup schema will be activated when an aggregate of individuals is perceived as a group, or “social entity” (Campbell, 1958). In this section we will review re-

search findings that are consistent with the possibility that *procedural interdependence* among outgroup members is an antecedent of outgroup schema activation. Procedural interdependence refers to an interrelationship of group members' behavior and outcomes. It is created, for instance, by introducing a consensus requirement or majority rule. Following such procedures, group members' individual preferences or decisions are combined into a collective group decision. We suggest that procedural interdependence among outgroup members activates the outgroup schema because it gives rise to the perception of entitativity or "groupness" (Campbell, 1958). Although this part of our chapter will focus on the role of procedural interdependence, we do not mean to imply that procedural interdependence is a necessary antecedent of outgroup schema activation. It is possible that other variables that increase the perceived entitativity of outgroups (e.g., spatial proximity) can lead to outgroup schema activation.

### *The Role of a Consensus Rule*

Two early studies (Insko et al., 1987; 1988) demonstrated that a consensus rule (i.e., a requirement within both interacting groups for the members to reach a consensus on their PDG choice) contributes to the interindividual-intergroup discontinuity effect. To the extent that the discontinuity effect is driven by greater fear of other groups than of other individuals, these studies suggest that a consensus rule plays a role in outgroup schema activation. Note, however, that neither study included assessments of expectations regarding the opponent's decision or participants' retrospective reasons for their own decision. The evidence from these studies regarding the role of a consensus rule in outgroup schema activation is therefore suggestive rather than conclusive.

The Insko et al. (1987) study was designed to test the altruistic-rationalization explanation of the discontinuity effect. According to this explanation, which has since been abandoned, the discontinuity effect arises from the tendency of group members to rationalize their competitive behavior as being an altruistic act, carried out for the sake of other group members. The study was run in a laboratory suite containing a center room with three smaller rooms on opposite sides and used a one-way experimental design with four conditions. The first condition was an *individuals* condition, in which three individuals, located in separate rooms on one side of the suite, interacted on an interindividual basis with single individuals located in separate rooms on the other side of the suite. On a given trial, participants examined the PDG matrix for 20 seconds, met in the center room for 15 seconds to discuss the situation with their opponent, and then returned to their homerooms where they had 15 seconds to select the cooperative or competitive choice. This procedure was repeated for 10 trials. The *outcome interdependence* condition was similar to the individuals condition but in addition participants were told that they would be sharing outcomes



with the three persons on the same side of the suite. This created the opportunity to engage in altruistic rationalization. In the *group-rep* condition participants on the same side of the suite were placed in the same homeroom. Each group of three participants selected a representative to meet with a representative from the other group in the center room. After the representatives returned to their homerooms, both groups made their choice following a consensus rule. The *group-all* condition was identical to the consensus condition, except that the members of both groups were required to meet collectively in the center room.

Relevant means are presented in the top row of Table 18.1. Please note that the *group-rep* condition is labeled *consensus* in Table 18.1 in order to emphasize its resemblance to similar conditions in experiments to be described below. The *group-rep* and *group-all* conditions were more competitive than the individuals and outcome interdependence conditions. Inconsistent with the altruistic rationalization hypothesis, the latter two conditions did not differ significantly.

In a follow-up experiment, Insko et al. (1988) examined what makes the *group-rep* and *group-all* conditions so much more competitive than the individuals and outcome interdependence conditions. Like the Insko et al. (1987) study, this study used a one-way experimental design, starting with an *outcome interdependence* condition, which was followed by four other conditions that progressively took on more of the properties of the *group-all* condition. In the second, or *contact*, condition the three participants on each side of the laboratory were placed in the same room but were not allowed to talk to each other. In the third, or *discussion*, condition the three participants in each room were required to discuss their individual PDG decision with each other. The fourth, or *consensus*, condition was one in which participants were required to reach a consensus regarding their separate PDG choices within their group. The fifth condition, labeled *group-all*, involved collective interaction between members of both groups, similar to the Insko et al. (1987) study. The only aspect in which

TABLE 18.1. Proportion of Competitive Choices Across Trials for the Insko et al. (1987), Insko et al. (1988), and Wildschut et al. (2001) Experiments

Study	Individuals	Inter- dependence	Contact	Discussion <sup>a</sup>	Consensus <sup>b</sup>	Group- all
Insko et al. (1987)	.07	.07	—	—	.53	.36
Insko et al. (1988)	—	.15	.13	.17	.47	.50
Wildschut et al. (2001)						
U.S. sample	.07	—	—	.32	.43	—
Dutch sample	.24	—	—	.30	.53	—
Weighted Average (by N)	.12	.10	.13	.26	.49	.42

Note. <sup>a</sup>This condition was labeled *procedural independence* by Wildschut et al. (2001); <sup>b</sup>This condition was labeled *group-rep* by Insko et al. (1987), and *procedural interdependence* by Wildschut et al.

the latter two conditions differed was that in the consensus condition the participants on one side of the laboratory still interacted individually with a member of the other group, whereas in the group-all condition, all three participants on one side of the laboratory interacted collectively with all participants on the other side.

The second row of Table 18.1 shows that participants in the consensus condition were more competitive than those in the outcome interdependence, contact, and discussion conditions and did not differ significantly from those in the group-all condition. These results suggest that a consensus rule is a sufficient antecedent of the discontinuity effect.

Unfortunately, these two studies are limited because expectations regarding the opponent's decision or participants' retrospective reasons for their own decision were not assessed. A third study (Wildschut, Lodewijckx, & Insko, 2001) did assess participants' retrospective reasons and provides stronger support for the role of a consensus rule in outgroup schema activation. Dutch and US participants interacted with a cooperative programmed opponent on three trials of a PDG. In addition to participant nationality, a second independent variable related to the type of interaction participants were involved in. This independent variable had three levels. The first level was an *individuals* condition, in which participants were under the impression that they exchanged decisions with another individual through an audiovisual circuit. The second level resembled the *discussion* condition of Insko et al. (1988). Groups of two or three participants were under the impression that they exchanged decisions on an interindividual basis with members of another group through an audiovisual circuit. Although each group member interacted individually with a person in the other group, members of the same group were allowed to discuss their PDG decisions. The third level resembled the *consensus* condition of Insko et al. In this condition, participants were required to reach a collective agreement regarding their group choice. Upon completion of the three PDG trials, participants completed a questionnaire that included two items assessing fear of the opponent ("I do not trust the other person/group" and "I want to defend myself/my group against the actions of the other person/group"). The remaining items assessed two components of greed: a concern for maximizing own absolute outcomes, or *max own*, and a concern for maximizing own outcomes relative to the outcomes of the opponent, or *max rel*.

Mean proportions of competitive choices for the US and Dutch samples are presented in the third and fourth row of Table 18.1, respectively. Across nationalities, participants in the consensus condition were more competitive than were participants in the individuals and discussion conditions. The latter two conditions did not differ significantly. There were no significant effects involving nationality. The results for retrospective fear tracked the choice data. Retrospective fear was higher in the consensus condition than in the discussion and individuals conditions, which did not differ significantly. When fear was controlled, the main effect for interaction type (i.e., individuals vs. discussion

vs. consensus) was no longer significant. In this model, the association between fear and competition was significant. This pattern of results is consistent with the possibility that outgroup fear mediates the role of a consensus rule in interindividual-intergroup discontinuity. However, the fact that fear was assessed after the PDG interaction means that the association between fear and choice behavior may reflect the effect of choice behavior on fear, instead of the reverse.

Jointly, these three studies provide compelling evidence for the role of a consensus rule in interindividual-intergroup discontinuity. To the extent that intergroup competition is driven by outgroup fear, results from the first two studies are consistent with the possibility that a consensus rule leads to activation of the outgroup schema. Mediation analyses conducted within the context of the third study support this conclusion.

### *Outgroup Fear in the Absence of a Consensus Rule*

Is a consensus rule a necessary antecedent of discontinuity effect? This question was addressed in a study by Insko et al. (1994; Experiment 2). In this experiment, individuals, groups without required consensus, and groups with required consensus interacted within the context of one of two *N*-person generalizations of the PDG: the intergroup public goods game (IPG) and the intergroup prisoner's dilemma (IPD) game. The IPG is based on the minimal contributing set paradigm and models intergroup conflict over step-level public goods (Rapoport & Bornstein, 1987). The IPD game models intergroup conflict over continuous public goods (Bornstein, 1992). In the IPG and IPD, players (individuals or groups) are given promissory notes that can be invested. Self-interest is maximized by investing more notes than the opponent. Similar to the PDG, however, when both players invest all their notes, they earn less than they would have earned if neither player had invested their notes. In other words, investing in the context of these *n*-person generalizations of the PDG is analogous to competing in the context of a two-choice PDG.

Results indicated that groups were more likely to invest (i.e., were more competitive) than individuals in both the IPG and IPD. Seemingly inconsistent with the experiments of Insko et al. (1987, 1988) and Wildschut et al. (2001), there was no significant effect for required consensus on intergroup competition. These results demonstrate that the interindividual-intergroup discontinuity effect can occur in the absence of a consensus rule.

A number of additional dependent variables were derived by coding tape-recorded discussions for various types of statement, including explicit fear and implicit fear. Participants in the individual condition made fewer explicit and implicit fear statements than did participants in the two group conditions. The no-required-consensus condition and required-consensus condition did not differ on explicit fear or implicit fear. Thus, greater fear of other groups than of other individuals can occur in the absence of a consensus rule.

### *Procedural Interdependence and Outgroup Fear*

Three studies (Insko et al., 1987, 1988; Wildschut et al., 2000) demonstrated the role of a consensus requirement in interindividual-intergroup discontinuity. Findings from the most recent of these studies suggest that the effect of a consensus rule is mediated by outgroup fear. In light of these findings, it seems surprising that within the context of two  $n$ -person generalizations of the PDG no significant effects were found for a consensus requirement on either intergroup competition or statements reflecting outgroup fear. Note, however, that consensus decisions in the two-choice PDG and group decisions in the  $n$ -person generalizations of the PDG share a key feature. In each case, the group members' decisions are translated into a collective group choice. In the case of consensus decision with the two-choice PDG this is straightforward: the group members discuss their preferences during a withingroup discussion period and decide on the collective group choice. Within the context of the  $n$ -person generalizations of the PDG this is more complex. Although group members decide individually whether or not to invest their promissory note, the total number of notes invested by the group as a whole is determined by the joint actions of the individual group members. In the  $n$ -person games, the total number of notes invested by one group is combined with the total number of notes invested by the other group to determine each group's total payoff. Thus, in both the two-choice PDG and the  $n$ -person games there is an interrelationship of own group members' decisions and outcomes, a state of affairs that we have labeled *procedural interdependence* (Insko et al., 1994, Wildschut et al., 2001). With the two-choice PDG, a consensus rule may be a prerequisite for procedural interdependence whereas with the more complex  $n$ -person games a consensus rule may not be required.

An important remaining issue is that in these three studies the effects of ingroup and outgroup procedural interdependence were confounded. Within each experimental session, members of both groups either were or were not procedurally interdependent. The observed effects of procedural interdependence on competition and outgroup fear could therefore be due to procedural interdependence among members of the ingroup, procedural interdependence among members of the outgroup, or both. We propose that outgroup procedural interdependence, but not ingroup procedural interdependence, is an antecedent of outgroup schema activation. Ingroup procedural interdependence is, in our view, more obviously relevant to the identifiability and social support explanations of the discontinuity effect.

Is the exclusive focus on outgroup procedural interdependence as an antecedent of outgroup schema activation justified? Recall Hoyle et al.'s (1989) second experiment in which participants rated the expected characteristics of an anticipated series of interactions for agreeableness and abrasiveness. One independent variable related to whether participants expected to participate in the interaction as an individual or as a group member. A second independent vari-

able related to whether participants anticipated interacting with an individual or with a group. Consistent with the postulated outgroup schema, interactions with a group were expected to be more abrasive than were interactions with an individual. More important, there was no significant effect for whether the participant anticipated acting as individual or as group member. In other words, target attributes were more important in determining ratings of abrasiveness than perceiver attributes. These findings partially justify our focus on procedural interdependence of the outgroup rather than procedural interdependence of the ingroup.

A more compelling justification for our focus on outgroup procedural interdependence comes from a recent experiment by Insko, Wildschut, and Pinter (2002), which involved one trial with the PDG matrix. One independent variable related to whether or not outgroup members were procedurally interdependent. A second independent variable related to whether or not ingroup members were procedurally interdependent. An effect for outgroup procedural interdependence on intergroup competition would be consistent with the hypothesized link between outgroup procedural interdependence and outgroup schema activation. The role of ingroup procedural interdependence is not directly relevant to this hypothesized link, although this is not to say that an effect for ingroup procedural interdependence would be uninteresting or unimportant.

Participants were run in groups of three and were seated individually in three small rooms that were attached to a larger central room. Participants were told that they would be interacting with another group of three persons, who were seated in a nearby laboratory. In reality, no other group was present, and all feedback from this alleged other group was controlled by the experimenter. Participants were told that they were yoked to a person in the other group and that they would interact with this person in the context of a PDG. Procedural interdependence among ingroup members was manipulated by instructing participants to use one of two different decision rules. In the no-procedural interdependence condition, participants were told that they would determine individually whether to compete or cooperate with the outgroup member to whom they were yoked. In the procedural interdependence condition, participants were told that there would be a group decision, and that this decision would be determined following a majority rule. In this condition, participants could not determine individually whether to compete or cooperate with the outgroup member to whom they were yoked. Instead, their decision was determined by the majority of the group. Outgroup procedural interdependence was manipulated by informing participants that the outgroup members to whom they were yoked would either be following the individual or the majority decision rule described above.

Consistent with the hypothesized link between outgroup procedural interdependence and outgroup schema activation, participants were significantly more competitive when they thought that outgroup members were following a

majority decision rule than when they thought that outgroup members were following an individual decision rule. There was also an effect for ingroup procedural interdependence. Participants were more competitive when they thought that ingroup members (including themselves) were following a majority decision rule than when they thought that ingroup members were following an individual decision rule (for a full discussion of the latter finding, see Insko et al., 2003).

### *Mediation by Perceived Entitativity*

Why does outgroup procedural interdependence increase outgroup fear? Insko et al. (1994) proposed that procedural interdependence is an antecedent of perceived entitativity, or the perception of an aggregate of persons as a group (Campbell, 1958). Entitativity, in turn, may lead to outgroup schema activation. We propose this causal sequence from procedural interdependence to perceived entitativity to outgroup schema activation as suggestive rather than conclusive. Nevertheless, we believe that there is a strong theoretical basis for this proposed sequence, as well as some compelling empirical support.

Campbell (1958) suggested that aggregates of persons are organized according to elementary perceptual principles identified by Gestalt psychologists. Specifically, Campbell suggested that the degree of similarity, proximity, and common fate among persons affects the perceived “groupness” of the aggregate. Common fate, which can be defined as the degree to which elements move in the same direction in space and time, shares some key features with procedural interdependence. By definition, procedural interdependence creates a situation where group members move in the same direction (i.e., the direction of the collective group decision) and experience common outcomes as a function of the group decision. S. L. Gaertner et al. (1999), referring to interaction between groups, noted that “when groups interact fully to reach a consensus solution to the same problem, members may intrinsically experience common fate with one another” (p. 390). In agreement with this idea, Insko et al. (1988) found that procedurally interdependent participants in the consensus and group-all conditions, who had to reach a collective decision within their group, reported less self-control over personal earnings than procedurally independent participants in the outcome interdependence, contact, and discussion conditions.

The above-described research by Insko, Wildschut, and Pinter (2003) produced results consistent with the postulated causal sequence from outgroup procedural interdependence to outgroup entitativity to outgroup schema activation. Relevant to the first link in sequence, they found that participants were more likely to perceive the interaction as involving two entitative groups as opposed to separate individuals when outgroup procedural interdependence was present rather than absent. Relevant to the second link in the sequence, they found that those participants who perceived the interaction as involving two

entitative groups reported more distrust of the outgroup than those who perceived the interaction as involving separate individuals. Distrust, in turn, predicted competition.

Further evidence for the second link in the causal sequence was provided by Dasgupta, Banaji, and Abelson (1999). They found that greater perceptual similarity and spatial proximity among a group of personlike figures increased the perceived likelihood that the group would engage in negative behavior vis-à-vis another group of personlike figures. Assuming that similarity and proximity are antecedents of entitativity, these results can be interpreted as demonstrating that “participants see groups as more combative and dangerous when they are more entitative” (Abelson, Dasgupta, Park, & Banaji, 1998, p. 247). A final source of evidence is offered by research on perceptions of outgroup homogeneity. It has been demonstrated that perceptions of other groups become less negative when their heterogeneity is made salient (e.g., Maurer, Park, & Rothbart, 1995). Assuming that perceived heterogeneity of another group is inversely related to the perceived entitativity of this group, these results support the proposed effect of perceived outgroup entitativity on outgroup schema activation.

### *Section Summary*

We reviewed research demonstrating that procedural interdependence is an antecedent of outgroup fear. These findings are consistent with the possibility that procedural interdependence leads to outgroup schema activation. We account for this relation between procedural interdependence and outgroup schema activation in terms of perceived entitativity. A causal sequence from procedural interdependence to perceived entitativity to outgroup schema activation was tentatively proposed. The first link in the sequence is in agreement with Campbell's (1958) seminal analysis of group perception, and is supported by recent research examining the unique effects of ingroup procedural interdependence and outgroup procedural interdependence on intergroup behavior and intergroup perception (Insko et al., 2003). The second link in the sequence is strongly supported by research on the relation between antecedents of entitativity and outgroup fear (Abelson et al., 1998; Dasgupta et al., 1999).

## DISCUSSION

### *The Reduction of Outgroup Fear*

Research on interindividual-intergroup discontinuity has attempted to identify strategies for reducing intergroup conflict by examining why intergroup relations are sometimes more hostile and competitive than interindividual relations. The schema-based distrust (or fear) hypothesis is based on the tendency to



distrust other groups more than other individuals. According to this hypothesis, intergroup interactions tend to be more competitive than interindividual interactions because the anticipation of interacting with another group activates a negative outgroup schema, consisting of learned beliefs and expectations that intergroup interactions are competitive, deceitful, and aggressive. Because schemas involve some abstraction away from the experiences that give rise to them, evidence for the existence of a schema is most obviously provided by results that cannot be explained in terms of different experience. Recall that Pemberton et al.'s (1996) first RIR experiment provided such evidence. Participants were asked to recall as many of the interactions that they had recorded over the course of a week. Interactions involving groups were both recorded and recalled as being more competitive than one-on-one interactions, but this difference was significantly larger for the recalled interactions, suggesting that participants' memory reflected some abstraction away from actual experience.

If our beliefs and expectations of other groups are based on a summary representation abstracted from past experience, then outgroup fear may be difficult to reduce. Why is this the case? S. B. Klein and Loftus's (1993) research on the representation of self-knowledge supports the idea that abstract self-knowledge and autobiographical self-knowledge are accessed independently and may in fact be stored independently. According to their Dual Exemplar/Summary view, the self-descriptiveness of traits (e.g., friendliness) can be judged by accessing directly an abstract representation of the self (e.g., I am a friendly person), or by accessing trait-relevant autobiographical memories (e.g., I gave John a nice birthday present). Klein and Loftus propose that in the process of judging the self-descriptiveness of traits we rely primarily on a summary representation of the self and that autobiographical information will be accessed only when a trait is not represented in summary form.

To the extent that findings regarding the representation of self-knowledge can be generalized to the representation of knowledge about other groups—and there is evidence that supports such a generalization (Gramzow, L. Gaertner, & Sedikides, 2001; E. R. Smith, in press)—Klein and Loftus's research implies that outgroup fear may be difficult to reduce. When people anticipate interacting with another group, they may rely on the summary information represented in the outgroup schema rather than their memory for specific interactions with particular outgroups, some of which may have been friendly.

A possible strategy for reducing outgroup fear that is less susceptible to the above-described problem is suggested by the Common Ingroup Identity model of S. L. Gaertner, Dovidio, Anastasio, Bachman, & Rust (1993). According to this model, intergroup bias can be reduced "by transforming members' cognitive representations of the memberships from two separate groups to one involving a common ingroup identity" (S. L. Gaertner et al., 1999, p. 389). If this transformation is successful, so the model proposes, "processes that produce more favorable regard for ingroup members can be directed to former outgroup members" (S. L. Gaertner et al., p. 389). A further outcome of creat-

ing a common ingroup identity, or superordinate group (Sherif, Harvey, White, Hood, & Sherif, 1988), may be that processes producing unfavorable regard for outgroup members, such as outgroup schema activation, are eliminated.

Past research on interindividual-intergroup discontinuity has revealed surprisingly little evidence for the role of group members' cognitive representations in determining intergroup behavior. Insko et al. (1998) found that, compared to the usual situation where the PDG choices of both sides are unconstrained by the experimenter, interacting with an opponent who followed a tit-for-tat strategy reduced intergroup competition. This reduction in competition was not tracked, however, by group members' cognitive representations of the interaction. Nevertheless, more recent studies have produced some interesting evidence for the relation between group members' cognitive representations of the interaction and outgroup fear. For instance, Insko et al. (2001) asked participants to indicate whether they thought of the people participating in the PDG as one group, two groups, or separate individuals (S. L. Gaertner, Mann, Murrell, & Dovidio, 1989). Results revealed a significant association between the anticipated likelihood that the other group would compete on the PDG and the two-groups representation, with the two-groups representation being stronger for groups that anticipated a competitive opponent than for groups that anticipated a cooperative opponent. This relation between trust and categorization suggests the interesting possibility that the tendency to perceive intergroup interactions as involving separate, entitative groups partially determines outgroup fear. Consistent with this possibility, participants in a minimal group experiment by L. Gaertner and Insko (2000) expected their monetary allocations (on Multiple Alternative Matrices) to be less strongly reciprocated by members of a different artistic-preference category than by members of their own artistic-preference category. Jointly, these studies indicate that one possible route to reducing outgroup fear is recategorization, or the creation of a common ingroup identity.

### *Is Trust Enough?*

Recall that, in the introductory sections of this chapter, we proposed that the tendency for intergroup interactions to be more competitive than interindividual interactions is rooted in the greater fear and greed in intergroup as compared to interindividual relations. The question therefore remains whether possible reductions in outgroup fear flowing from interventions aimed at establishing a common ingroup identity will go hand-in-hand with reductions in greed. In other words, does trust provide a sufficient basis for cooperation between groups?

Somewhat paradoxically, we believe that trust may sometimes increase cooperation and sometimes decrease cooperation (or increase competition). There are three possible reasons why trust might increase cooperation. First, trust carries the strong implication that in the long run outcomes can be maxi-

mized through cooperation. Second, trust contradicts a rationalization that is sometimes used to justify greed-based exploitation. Insko et al. (1993) cited anecdotal evidence that diplomats of the former Soviet Union sometimes justified Soviet domination of Eastern Europe on the basis of Russia's historic fear of being invaded by the West; that is, by Soviet distrust of the West. Third, it is possible that trust carries with it the normative expectation of being cooperative. Taking advantage of a cooperative and vulnerable other may be counter normative—certainly if the other is an individual, but even if the other is a group. The outrage that Americans felt toward the Japanese following the Pearl Harbor attack may be partially explained on this basis.

Given the above reasons why trust may increase cooperation, why should trust ever decrease cooperation? The reason is that in the context of a PDG-like situation trust implies that the other will be cooperative and thus vulnerable to exploitation (Axelrod, 1984; Shure, Meeker, & Hansford, 1965). This, of course, assumes that individuals or groups are sometimes likely to respond on the basis of simple self interest. It seems apparent that in some situations individuals, and particularly groups, do respond on the basis of own interest. What might contradict this tendency of trust to increase competition? This is an interesting question for future research, but one possibility relates to perceiving common categorization in the context of continuing interaction, where self interest can be maximized through long-term cooperation as opposed to short-term competition.

#### AUTHOR NOTE

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