

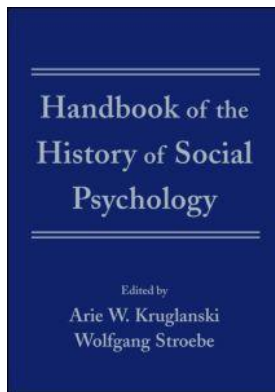
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### **A History of Social Conflict and Negotiation Research**

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## 20 A history of social conflict and negotiation research

*Dean G. Pruitt*

Social psychology was a relative latecomer to the study of conflict and negotiation, with its first publication in 1953. Scholars in several other fields preceded our efforts, including economists (e.g., Edgeworth, 1881), sociologists (e.g., Simmel, 1922/1955), international relations theorists (e.g., Wright, 1942), and mathematicians (e.g. Von Neumann & Morgenstern, 1944). The earliest social psychologists who studied these topics relied heavily on scholars from these other fields for variables, hypotheses, and paradigms that could be translated into research methods. Psychological theory was a lesser source of ideas at first, but it has become increasingly important over the years.

Conflict occurs when one party tries to influence another's behavior or outcomes and the other resists or retaliates. The parties to a conflict may be individuals, groups, organizations, or nations. Conflict often results from divergence of interest, in which the parties have opposing preferences, though there are other sources. Negotiation occurs when parties communicate in an effort to settle a conflict.

The social psychology of conflict and negotiation is mainly an empirical field. It started with research on the Prisoner's Dilemma (PD) and moved on to research on negotiation and mediation. Much progress has been made, especially in understanding negotiation. But this progress has not resulted from the development and testing of new theories. Instead, the variables studied and the hypotheses tested have been borrowed from other fields, derived from observations, or based on informed speculation. There have been turning points in which new questions were asked and new phenomena examined, but these have not resulted from theoretical developments within the field.

Strangely, there is also a small but rich tradition of social psychological theory about conflict, which is only loosely tied to the empirical literature. This tradition is much broader in scope than the empirical literature, embracing conflicts from the playground to the battlefield and having a lot to say about escalation. It is also more cumulative, in that later theorists have usually embraced earlier ones and moved on to greater complexity. Theory building started earlier than empiricism, and one early theorist, Morton Deutsch, got the empirical field going in two ways. First, he posed one of the most fundamental research questions: In mixed-motive settings—where there are incentives for both cooperation and competition—what determines whether behavior will go in a cooperative or a

competitive direction? Second, he was the first to use experimental games (see below), a tradition that continues to this day. However, few studies have tested hypotheses derived from the theoretical tradition, even studies performed by the theorists themselves.

Theory and research have spawned a small practical tradition. There are a few scholar-practitioners in the field including two social psychologists who have developed well known innovations in the realm of conflict resolution—Herbert Kelman with his problem-solving workshops and David Johnson with his school mediation programs. In addition, some scholars provide research-based advice to negotiators in the form of practical books, workshops, and interactive computer programs.

The next section of the chapter describes the development of the social psychological theories of conflict. The few empirical studies that explicitly tested these theories will be mentioned in that section. The following three sections present, in historical perspective, the main topics of empirical research—the Prisoners Dilemma, negotiation, and mediation. The penultimate section discusses practice; and the conclusions will be mainly devoted to a critique of the field, especially its negotiation segment.

American scholars dominated this field for many years, but there has been growing international participation, as is true for the field of social psychology as a whole. Non-American scholars will be so identified, to allow the reader to follow this trend.

### **Conflict theory**

Most theorists entered this field because of a concern about the problems associated with conflict, particularly international conflict. The historical context that shaped their various interests included the Second World War, the Cold War, the Vietnam War, and the Arab–Israeli conflict. Thus Sherif (1966), the father of the field, wrote of conflict as “the most overriding, the most anxiety-ridden, and therefore the most challenging of human problems in the modern world” and described international conflict as “towering above all [other] problems” (p. 1). Deutsch (1969) wrote, “My work in social psychology has been shadowed by the atomic cloud” (p. 1076). White (1968) justified his theorizing as a step toward preventing a third World War. Similar concerns impelled many empirical researchers,

though there were other formative contexts that will be mentioned at the beginning of the section on negotiation research.

### **Muzafer Sherif**

Sherif's theory (Sherif, Harvey, White, Hood, & Sherif, 1961; Sherif & Sherif, 1953) asserts that competitive activity leads to intergroup hostility, unfavorable attitudes and stereotypes, and conflict. Though he does not mention divergence of interest, this is the usual source of competition and hence can be viewed as an antecedent of conflict within the context of his theory. As conflict develops, solidarity and pride in the ingroup increase along with a tendency to overestimate the ingroup's achievements *vis-à-vis* the outgroup. In groups experiencing conflict, people who are good at competitive activity rise in status. To reverse all these developments, simple contact between the groups is insufficient and may encourage more fighting. Rather, "superordinate goals" are needed—common goals that require intergroup cooperation for their achievement.

This theory was "tested" in three experiments on boys' camps, which Sherif organized for this purpose. The word "tested" is in quotes because these experiments, while rich in realism, were basically efforts to demonstrate the validity of his theory. There were no control groups and Sherif only wrote up his first and third camps, since the second camp did not produce much conflict.<sup>1</sup> The first camp only demonstrated the conflict development part of his theory (see Sherif & Sherif, 1953), while the third camp—the Robbers Cave experiment—demonstrated both that and the conflict resolution part (see Sherif et al., 1961). Hence only the third camp will be described.

The Robbers Cave experiment involved two groups of 12 boys aged 11–12. These groups engaged in a series of competitive games during which conflict developed—in the form of name calling, apple fights, and raids on each other's cabins—and the other predicted individual and group phenomena were observed. This conflict was dispelled by the introduction of several superordinate goals, such as the need to diagnose and repair a breakdown in the camp's water supply.

Sherif's theory is foundational for the empirical study of intergroup relations (see the chapter by Dovidio), but there has been only one test of his hypotheses about conflict. In a well-controlled laboratory experiment that largely replicated his design, Worchel, Andreoli, and Folger (1977) showed that competition does indeed produce intergroup hostility. But superordinate goals only reduce this hostility if they are achieved. If the combined effort of the groups ends in failure, the hostility returns, with each group blaming the other for this failure.

### **Morton Deutsch**

While Sherif was the father of the field, Deutsch was its initial driving force, attracting scholars and giving the field direction. Unlike Sherif, his theory (Deutsch, 1973) applies to conflict

between individuals as well as between collectives. He agreed with Sherif that divergence of interest can lead to conflict but argued that divergence of interest usually co-occurs with convergence of interest. In other words, most conflict situations have a "mixed-motive" character, with incentives for both competition and cooperation. He got the concept "mixed motive" from Nobel Laureate Thomas C. Schelling (1960), an economist and game theorist, who heavily influenced early scholars in this field. Schelling's name will appear several times as we go through this chapter.

Deutsch reasoned that in mixed-motive settings, a "cooperative process" sometimes develops rather than the "competitive process" that was seen in the Robbers Cave experiment. In a cooperative process, efforts to influence the other party involve persuasion rather than coercion and deception. Communication is open and honest, and the parties trust each other. Efforts are made to resolve the divergence of interest in a manner satisfactory to both parties rather than to advance strictly selfish objectives.

Certain conditions encourage a cooperative process, including friendly relations, superordinate goals, common attitudes and values, and membership in a common community. A competitive process is more likely to arise when positions are far apart or the parties feel the issues deeply. There are also individual differences in preference between these processes. Deutsch's "crude law" holds that the characteristics and effects of each process tend to elicit that process. In other words, "cooperation breeds cooperation, while competition breeds competition" (Deutsch, 1973, p. 167).

A search for conditions that encourage these two processes underpinned Deutsch's empirical work and was the starting point for much subsequent research in the field. However, most of his studies did not test propositions derived from his theory but instead manipulated variables drawn from other sources. Some of his studies employed the Prisoner's Dilemma and hence will be discussed in the next main section. Others used a "trucking game," in which two participants try to move simulated trucks to a destination. Each must choose between two routes: a shorter common path where their trucks will collide unless they take turns, and a longer unshared path. In some conditions, the parties have gates they can lower to block the other party's exit from the common path.

Using the trucking game, Deutsch tested the hypothesis that bilateral threat capacity encourages competitive conflict, with mutually injurious outcomes. His studies (Deutsch & Krauss, 1960) showed that having the gates (threat capacity) encouraged their use (competitive conflict), which led to loss of points on both sides (mutually injurious outcomes). However, Kelley and his students questioned the generality of these results, showing that the effect of having the gates disappeared over time if the alternative paths were removed (Shomer, Davis, & Kelley, 1966) or money was used instead of points (Gallo, 1966).

Two later theorists were directly influenced by Deutsch. Deutsch's theory implies that conflict can have positive

outcomes if properly handled, a position later elaborated by Tjosvold (1991) in his theory of the conflict positive organization. In addition, Deutsch's crude law is the main building block of a computer simulation of community conflict built by Polish social psychologist Andrzej Nowak (Nowak, Deutsch, & Bartkowski, 2009).

### *Henri Tajfel*

Tajfel (Tajfel & Turner, 1979, 1986), a Polish-born social psychologist working in Britain, accepted Sherif's and Deutsch's position that divergence of interest and resulting competition can produce intergroup conflict. However, he had two concerns about this "realistic conflict theory." One was that groups with different levels of wealth and power seldom fall into conflict despite competition for resources and influence. He argued that conflict only occurs in such relationships when (a) there is little individual mobility from the less privileged to the more privileged group, (b) the less privileged group compares itself with the more privileged group, and (c) the less privileged group views the existing status structure as illegitimate and unstable (and hence assailable).

Tajfel's other concern stemmed from his experimental evidence for the "minimal group effect"—that the mere existence of two groups, without divergence of interest or interaction, encourages discrimination in favor of the ingroup (Tajfel, 1970). While discrimination is not the same thing as conflict, there is a good chance that it will produce conflict.

Tajfel and Turner (1986) explained the minimal group effect in terms of social identity theory, arguing that group membership is an important part of an individual's identity. Hence to strengthen self-esteem, people seek to bolster the perceived status of their group. Discrimination in favor of the ingroup serves this end. For another interpretation of the minimal group effect see the work of Dutch social psychologist Jacob Rabbie (1993).

As with Sherif, Tajfel's theory has inspired much research in the field of intergroup relations, which is covered in Dovidio's chapter in this volume. But it has had little impact on conflict research, perhaps because that research has mainly focused on conflict between individuals rather than groups.

### *Ralph K. White*

The three theorists just discussed were interested in the origins and nature of conflict and built on one another's work. But White (1968, 1984) went off in a different direction, seeking to understand the psychological processes that cause some international conflicts to escalate and stay escalated. The theory he developed can be generalized well beyond the international sphere.

A student of Lewin, White had spent his early career in the United States Information Agency and witnessed first-hand some of the thinking that led to US involvement in the Cold War and the Vietnam War. He supplemented this knowledge

with careful study of the run-up to the First and Second World Wars.

White explained escalation as the product of a vicious circle in which each side is reacting to the "cumulative impression from all the previous actions by the other side" (White, 1984, p. 95). As this circle grinds on, psychological changes may occur that maintain the conflict in a highly escalated state. A diabolical enemy image develops, which may embrace the adversary group as a whole or only the adversary's leaders. Accompanying this is a moral self-image, and the two images together explain the conflict as the adversary's fault, thus maintaining self-regard. These images are bolstered by several mechanisms that allow parties to overlook their own role in the vicious circle and any signs of peaceful intentions on the other side: (a) selective perception, inattention, and attribution; (b) lack of empathy for the adversary; (c) worst case analysis; and (d) a "pro-us illusion" that the adversary realizes we are peace-loving. Conformity and conformity pressures also help perpetuate these images. Two accompaniments of escalation tend to encourage violence: "macho pride," which can lead to preemptive attack or undue retaliation, and military overconfidence. If a nation goes to war, the pro-us illusion may lead them to falsely predict that the population invaded will welcome them as liberators.

### *Dean G. Pruitt and Jeffrey Z. Rubin*

After years of empirical research, the author of this chapter and the late Jeffrey Z. Rubin set out to create a theoretical integration of all that was known about conflict. Their goal, to explain everything with a minimal number of concepts, proved too ambitious. But they produced a novel synthesis of past theory and research, and their book still serves as a popular introductory text (Pruitt & Kim, 2004; Pruitt & Rubin, 1986; Rubin, Pruitt, & Kim, 1994).

In explaining the origin and basic nature of conflict, their theory agrees with Deutsch that conflict results from divergence of interest and that most conflict situations have a mixed-motive nature. But it differs from Deutsch in that the unit of analysis is the individual party deciding what strategy to adopt rather than the dyad moving to cooperation or competition. Focusing on the individual party allows incorporation of ideas from individual psychology (e.g., aggression theory), group dynamics (e.g., conformity theory), and the theory of strategic choice (e.g., Schelling's [1960] theory of threats). Tajfel's minimal group effect is accepted but treated as a secondary source of conflict.

The theory asserts that parties who perceive a divergence of interest must choose among four strategies: contending (trying to impose one's preferred solution), problem solving (trying to satisfy both parties' interests), yielding, and inaction. A "dual concern model" (adapted from Blake & Mouton, 1964 and Thomas, 1976) is presented, which predicts strategic choice from the strength of concerns about own and others' outcomes. Low self-concern and low other-concern encourage inaction;

low self-concern and high other-concern encourage yielding; high self-concern and low other-concern encourage contending; high self-concern and high other-concern encourage problem solving.

This dual concern model is supported by the author's earlier research on negotiation (e.g., Ben-Yoav & Pruitt, 1984a, 1984b) and by multidimensional scaling of strategic preferences (Van de Vliert, 1990). Further support comes from a meta-analysis of 28 studies that compared the two-dimensional dual concern model with Deutsch's one-dimensional cooperation-competition model (De Dreu, Weingart, & Kwon, 2000). This study found that participants who had a prosocial, as opposed to an individualistic, motive employed more problem solving and less contending and achieved higher joint benefit, as implied by Deutsch's model. However, it also showed that a moderator variable was needed, which turned out to be resistance to yielding, a close cousin of self-concern. Under high resistance to yielding, the effects just mentioned were substantially strengthened, as predicted by the dual concern model.

The theory continues with a discussion of escalation, which is conceptually distinguished from conflict. Following White, escalation is attributed to a vicious circle ("conflict spiral") and persistent escalation to psychological changes that are held in place by mechanisms such as selective perception and conformity. Adapting ideas from group psychology and sociology (e.g., Coleman, 1957), the theory points to other "structural changes" that can cause escalation to persist, at the intragroup level (attitude polarization, elevation of radical leaders) and the community level (community polarization).

The final part of the theory concerns de-escalation from intractable conflict. Adapting ideas from international relations scholar I. William Zartman (2000), de-escalation is assumed to occur when both parties perceive that they are in a hurting stalemate, provided that there is optimism about the possibility of finding a mutually acceptable agreement. In other theoretical work based on case studies of successful peace processes, the author (Pruitt, 2007, 2008) has suggested that such de-escalation often starts tentatively, with one party sending signals or unofficial messengers to feel out the opponent. If the opponent responds favorably, secret back-channel communication may begin—sometimes involving chains of intermediaries. If sufficient optimism develops in the back-channels, full-scale negotiation will occur.

Dutch social psychologist Evert Van de Vliert (1997) has criticized the dual concern model, arguing that sequences and other combinations of the four strategies must be brought into the theory.

### ***Other escalation theorists***

Escalation has continued to interest theoreticians. Thus Canadian social psychologists Ronald J. Fisher and Loreleigh Keashly (1990) have developed an influential contingency model that indicates the most effective type of third-party intervention for each of four levels of escalation in intergroup and

international conflict. At Level 1, where the parties have differing interests, conciliation (good offices) is usually sufficient to produce productive negotiation. At Level 2, where the parties' relationship is in jeopardy, problem-solving workshops are useful as a prelude to negotiation and mediation. At Level 3, where the parties view each other as enemies and employ threats, arbitration and mediation by powerful third parties are useful gateways into problem-solving workshops. At Level 4, where the parties are involved in intractable physical conflict, peacekeeping (third-party use of force) will often be needed before any other third-party method is useful.

Israeli social psychologist Daniel Bar-Tal (2000) attributes persistent escalation to societal narratives—often passed down from generation to generation—that highlight instances of harmful behavior from the other party. These encourage security concerns and a need for own group unity. They also delegitimize and dehumanize the other group, while producing a positive image of one's own group. All of this becomes part of what Bar-Tal calls an "ethos of conflict," which is widely believed and appears regularly in the media, public ceremonies, and other cultural products.

Coleman and his associates (P. T. Coleman, Vallacher, Nowak, & Bui-Wrzosinska, 2007) have developed a theory that views low and high levels of escalation as attractors in a dynamical systems landscape. Attractors are stable locations on a dimension to which behavior returns if deflected by momentary external forces; for example, a good mood in a chronically optimistic person who occasionally experiences unpleasant circumstances. Most relationships are at a low escalation attractor, to which they return after occasional bouts of escalation. But if external escalatory forces grow to the point where they pass a threshold, an abrupt change is likely to occur in which the relationship moves to a high escalation attractor which is also quite stable. Thereafter, external forces can encourage de-escalation and a return to stable low escalation. But the threshold for return is likely to be at a lower level of escalation than was the prior threshold, which means that runaway escalation is more frequent than runaway de-escalation. Evidence of an abrupt change from low to high escalation in the face of severe provocation from a friend can be seen in thesis research by Polish social psychologist Lan Bui-Wrzosinska (2005).

Despite the existence of a rich theory about escalation, there have been very few social psychological studies of this phenomenon. This is probably because of the inadequacy of the research methods usually used in this field, a topic to be explored in the overall conclusions at the end of this chapter.

### ***Conclusions***

All theorists agree that divergence of interest is often the source of conflict, and Tajfel showed that the mere existence of groups can also have this effect. For Sherif, divergence of interest always produces conflict (though this did not occur in his second, unreported camp), but this view was challenged by Deutsch, who argued that dyads can react to divergence of

interest in two possible ways, depending on the conditions: hostile confrontation and cooperation to solve the problem. Deutsch's position was later augmented by the author and his colleagues, who shifted the analysis to strategic choices made by individual parties, and postulated four possible strategies and a two-dimensional dual concern model that predicts choice among these strategies. Research evidence supports the author's model over Deutsch's one-dimensional model.

Another strand of theory concerns spiraling escalation of conflict, which may result from the choice of a contentious strategy. White described several psychological changes that can make it hard for escalation to dissipate once it occurs. The author added changes in group and community structure that can have the same effect, and later scholars have invoked the concepts of ethos of conflict and attractor landscapes. Despite the vigor of the theory of escalation, there has been very little research on this phenomenon.

### Research on the Prisoner's Dilemma

Having developed the theory described above, Deutsch sought a mixed-motive, two-person task that would allow him to test hypotheses about the conditions leading to a cooperative versus a competitive process. A game theorist suggested that he create a laboratory version of the Prisoner's Dilemma (PD; Deutsch, 1980), a reward structure often analyzed by game theorists (see Luce & Raiffa, 1957; Von Neumann & Morgenstern, 1944). Thus was born the experimental gaming tradition and the first empirical research on the PD.

Experimental games are laboratory tasks in which "(a) each individual must make one or more decisions that affect his own and the other's welfare, (b) the outcomes of these decisions are expressed in numerical form, and (c) the numbers that express these outcomes are chosen beforehand by the experimenter" (Pruitt & Kimmel, 1977, p. 363). The PD is an experimental game, as are most of the tasks used in negotiation research and the trucking game described earlier, which is scored in terms of the number of seconds each participant takes to reach its destination.

A generalized version of the PD is shown in Figure 20.1(a). Two parties, one playing row and the other column, must choose between Options C (cooperation) and D (noncooperation). The outcomes (usually points or money) for each combination of choices are shown at the intersection of those choices, with Party 1's outcomes before and Party 2's outcomes after the comma. To be a PD, the outcomes for each party must have the following relationship:  $Y > W > Z > X$ . An example from the author's laboratory is shown in Figure 20.1(b). The parties usually choose simultaneously in ignorance of the other's choice and then are informed about their outcomes. Sometimes there is only one trial, but most studies involve multiple trials in which the parties confront the same matrix again and again.

The PD involves a dilemma because, on each trial, both parties are better off not cooperating (choosing D) regardless of the other's decision; yet this leads to outcome Z, which is worse

	Party 2		Party 2	
	C	D	C	D
C	$W_1, W_2$	$X_1, Y_2$	C	12, 12    0, 18
	Party 1		Party 1	
D	$Y_1, X_2$	$Z_1, Z_2$	D	18, 0    6, 6
	(a)		(b)	

Figure 20.1 The Prisoner's Dilemma. (a) Generalized version; (b) example of a laboratory task. From Pruitt (1967). Copyright © 1967 American Psychological Association. Reproduced with permission.

for both parties than the outcome for mutual cooperation, W. This means that the PD is a mixed-motive game, with incentives for both cooperation and noncooperation. "The PD underlies some of the most important decisions people make, including choices between helping and not helping, working and loafing, paying and not paying debts, arming and not arming, and so on" (Pruitt, 1998, p. 471).

### Deutsch's PD research

In the first experiment using the PD, Deutsch (1958) compared three types of social motivation, which were produced bilaterally by instructions: prosocial<sup>2</sup> (concern with both parties' welfare), individualistic (concern with own welfare), and competitive (desire to do better than the other party). There was only one trial. Unsurprisingly, prosocial instructions produced more cooperation (C playing) than individualistic instructions, which produced more cooperation than competitive instructions.

These findings were replicated by Kuhlman and Marshello (1975), using a measure of individual differences in motivation involving choices between various combinations of own and other's outcomes, for example: \$60-\$60, \$70-\$40, and \$50-\$10. People who usually choose the first type of option are classified as prosocial, because they are maximizing joint gain; those who usually choose the second type of option are classified as individualistic, because they are maximizing their own gain; and those who usually choose the third type of option are viewed as competitive, because they are maximizing relative gain. This finding implies that there are reliable individual differences in approach to mixed-motive tasks, a conclusion that was supported by another Deutsch study (1960) which found that people who cooperated in the PD tended to be low in authoritarianism.

In the first Deutsch experiment, the three types of social motivation were crossed with three procedural conditions: no communication between the participants, free communication, and reversibility (participants could change their choice repeatedly until they were both satisfied). Reversibility produced more cooperation than communication, which produced a lot more cooperation than no communication. There was also an interaction: These effects were mainly seen in the individualistic condition.

In a five-trial follow-up, which was inspired by listening to the communications in the first study, Deutsch (1958) examined the impact of various messages. Communicating an intent to cooperate and an expectation of cooperation enhanced cooperation in both sender and receiver. This effect was strengthened by adding a threat to retaliate if the other failed to cooperate and was further strengthened by adding a promise of absolution—to cooperate if the other first failed to do so and then switched to cooperation.

### Deutsch's successors

Deutsch's PD studies inspired hundreds of subsequent investigations. This task became popular for at least six reasons (Pruitt & Kimmel, 1977): (a) It yields behavioral rather than questionnaire results. (b) It allows precise specification of the divergence and convergence of interest. (c) It allows precise measurement of cooperative and noncooperative behavior. (d) It is easy to use and economical. (e) External sources of variance found in more naturalistic settings are absent, allowing powerful tests of significance. (f) Conflict behavior "can be manifested without injury to the people or their relationships" (p. 366). Some of this research yielded interesting insights; but because the PD was so easy to use, a lot of mindless potboilers were also produced, which Deutsch (1980) later decried.

First in line was Anatol Rapoport, a mathematical biologist, who ran participants in 50 or more trials at a sitting. His most interesting finding (Rapoport & Chammah, 1965) was that, over trials, there was first a decline in cooperation and then (after 20 to 30 trials) a rise in cooperation. Rapoport was reluctant to explain his results, contending that running participants in the PD was like Galileo rolling balls down an inclined plane, and it was only necessary to fit mathematical equations to the results. However, social psychologists were not happy with this approach, and the author (Pruitt, 1998) proposed a two-part interpretation of this finding:

- 1 The initial downward trend in cooperation is due to a greater tendency to reciprocate noncooperation than cooperation, as shown by Sermat (1967). This places an increasing number of dyads in the "DD trap," where each party fails to cooperate in response to the other's prior noncooperation.
- 2 The later upward trend reflects the onset of long-range thinking in which the participants realize that they are in the DD trap, that the other party will not tolerate being exploited (CD or DC), and that mutual cooperation (CC) is the only reasonable alternative. In that frame of mind, if either party tries cooperation the other immediately reciprocates, and they become locked into mutual cooperation.

Other investigators were interested in the effect of one party's strategy on the other party. Two early studies (Bixenstine & Wilson, 1963; Harford & Solomon, 1967) looked at the impact

of the "reformed sinner" strategy in which the strategist fails to cooperate for a while and then switches to cooperation. This strategy elicits more cooperation from the target than consistent cooperation (which is usually exploited) and consistent noncooperation (which leads to the DD trap).

Still other studies examined the impact of a "tit-for-tat" strategy that matches the other's just prior behavior. This reinforcement scheme is more effective at enlisting the other's cooperation than free interaction (Wilson, 1971) and the reformed sinner strategy (Deutsch, Epstein, Canavan, & Gumpert, 1967). A "deterrent" strategy, in which the party matches the other's noncooperation but not the other's cooperation, enlists very little cooperation (Deutsch et al., 1967).

Some PDs can be decomposed into an infinite number of games in which both parties choose between two options that provide an outcome to self and an outcome to other. The author (Pruitt, 1967) did an experiment involving the following three decomposed PDs.

	<i>Own outcome</i>	<i>Other's outcome</i>	<i>Own outcome</i>	<i>Other's outcome</i>	<i>Own outcome</i>	<i>Other's outcome</i>
C	6	6	0	12	-6	18
D	12	-6	6	0	6	0
	Decomposition 1		Decomposition 2		Decomposition 3	

All of these decompositions add up to the PD shown in Figure 20.1(b), but each of them elicits a different pattern of behavior. With Decomposition 1, cooperation (choice of C) steadily declines and most dyads are in the DD trap by the end of 20 trials; with Decomposition 2, there is an immediate high level of mutual cooperation that persists; and with Decomposition 3, cooperation increases to much the same level.

How can these findings be explained? Here is one possibility: In Decomposition 1, it looks as if one gets one's highest outcome by choosing D; hence, the parties feel independent of each other. But in Decompositions 2 and 3, it looks as if one's highest outcome requires the other party to choose C. Hence, the parties feel dependent on each other, and the only way to get the other party to cooperate is to choose C oneself and hope that the other will reciprocate.

The PD was also used as a method for studying the relationship between actual and inferred intentions, in the tradition of attribution theory. Kelley and Stahelski (1970) measured participants' intentions before they started the task and asked their opponents and observers to judge these intentions after a number of trials. Participants with noncooperative intentions were accurately judged. But those with cooperative intentions were misjudged as noncooperators if paired with a noncooperator because they had shifted to noncooperative behavior for defensive reasons. The noncooperators with whom they were paired were among those making this misattribution, which perpetuated the noncooperators' behavior.

Heavily influenced by Schelling (1960), Tedeschi and his students performed studies on threats and promises using the PD (Tedeschi, Schlenker, & Bonoma, 1973). Their method involved confederates trying to persuade the participants to cooperate. They found that the effectiveness of threats and promises depends on their credibility and the size of the proposed penalty or reward. Credibility is a function of past consistency in enforcement. In the case of threats, it also increases with the status of the communicator (Faley & Tedeschi, 1971), and in the case of promises, with the target's trusting nature (Schlenker, Helm, & Tedeschi, 1973). Compellent threats ("play C or else") were found to be more resented but more effective than deterrent threats ("don't play D or else") (Schlenker, Bonoma, Tedeschi, & Pivnick, 1970).

### **Goal/expectation theory**

In an effort to find coherence in some of the disparate PD findings just described, Pruitt and Kimmel (1977) devised a "goal/expectation" theory. This theory asserts that cooperation in the PD is often the result of a two-part process in which a participant develops a goal of achieving mutual cooperation (CC) and discovers that the other party is also ready for cooperation. This parallels the explanation given above for the delayed upward trend in cooperation found by Rapoport and Chamah (1965). It also explains the reformed sinner effect. During the "sinner" phase, experience in the DD trap encourages a goal of moving to CC. Hence, when the other party "reforms" and shifts to C, that move is reciprocated.

Another finding that is explained by goal/expectation theory is that cooperation by a high-power other is more likely to be reciprocated than cooperation by a low-power other (Lindskold & Bennett, 1973). The other's high power precludes exploitation of the other, making mutual cooperation and mutual noncooperation the only viable options. Since mutual cooperation pays more, participants reciprocate the other's cooperation.

Unfortunately, as with virtually all other theories in this field, goal/expectation theory generated no further research.

### **The decline of PD research**

PD research diminished sharply in the 1970s and has appeared only occasionally since (e.g., research on the "individual-group discontinuity effect" by Insko, Schopler, Hoyle, Dardis, & Graetz, 1990). There are four possible reasons for this decline: (a) The research was largely method bound. Most scholars were testing their hunches rather than their theories and these began to run out. (b) Many of the findings were hard to interpret in the real world. (c) The PD did not involve actual conflict, in the sense of overt confrontation, and many of the researchers were really interested in that topic. (d) New theoretical and laboratory paradigms developed, which were more interesting to most social psychologists. The most important reason is probably (d).

With the introduction of cognitive dissonance theory in 1957 and attribution theory in the 1960s and 1970s, social psychology

began a slow transformation to a predominantly theory-based field. In this process, method-bound research (e.g., on the authoritarian personality and the risky shift) became increasingly unpopular, and this trend hit the PD. Those experimenters who were not pulled away to theory-based research were attracted by two new laboratory paradigms that were closer in appearance to real-world conflict: social dilemmas, which are discussed in the chapter by Van Lange, and negotiation, the next topic here.

There is another problem with PD research that is inherent in using the PD in its original matrix form (Figure 20.1). Humans, individually and collectively, have developed many ways of coping with PDs. But these norms and habits are unlikely to be activated in the typical PD study because the task is so novel and abstract. We certainly learn something about how people adjust to newly encountered PDs in matrix form, but it is unclear how much farther we can generalize many of the findings. The fact that naturalistic variation is absent in PD research is a false advantage. We would learn more about how people normally handle PDs if we put some flesh on these bones by making them look more like everyday scenarios. The decomposed dilemmas go some distance in this direction, which is why we get such large differences in behavior toward different decompositions of the same PD.

### **Conclusions**

Deutsch started PD research to understand the conditions under which parties choose cooperation versus competition in mixed-motive settings. Much was learned about behavior in the matrix form of the PD and a minitheory, the goal/expectation theory, was developed to explain some of the findings. However, it is not clear how many of these findings generalize to real life, where there are norms and habits for dealing with different manifestations of the PD that are not usually seen in the laboratory.

The PD was so easy to use that hundreds of studies were done with it. However, it turned out to be a dead end. Besides being hard to generalize, the results did not involve actual conflict. Hence PD researchers who were not pulled away by the exciting new theoretical developments in the field of social psychology moved on to research on negotiation, which did not have these liabilities.

### **Research on negotiation**

As PD research wound down, negotiation research began to grow. Like the PD, negotiation has a mixed-motive structure. The parties start out with opposing preferences, and hence are motivated to compete; but they also must cooperate in order to reach agreement. Hence, some of the findings from the PD can be extended to negotiation, though not very many since negotiation is a much more complicated phenomenon, with an array of options rather than only two and an outcome that is usually determined by agreement rather than by the parties' separate moves.



Scholarly interest in negotiation goes back to the 18th century. At first the field was dominated by diplomat/writers (e.g., de Callieres, 1716/2000), then by economists (e.g., Edgeworth, 1881), and then by game theorists (Von Neumann & Morgenstern, 1944).

Social psychological research began in 1960. Until the mid-1980s, this research was mainly done in psychology departments; but then the center of gravity moved to management schools, which began teaching courses on negotiation. Management school researchers use social psychological theory and methods and hence are included in this chapter. Reviews of negotiation research can be found in Bazerman, Curhan, Moore, and Valley (2000), De Dreu (2010), De Dreu, Beersma, Steinel, and Van Kleef (2007), Pruitt and Carnevale (1993), and Thompson (2006).

Negotiation research is now a very large field, with dozens of investigators at work. It appeals to researchers with several different interests. For those, like the author, who wish to solve the problem of conflict, negotiation involves both conflict and a nonviolent means for resolving that conflict. Others like Siegel and Fouraker (see below) are interested in collective decision making and view negotiation as one manifestation. Still others are in business schools where they must teach future managers how to negotiate effectively. Some of the latter are even paid for advice by real-life negotiators.

Most studies of negotiation have been done in the laboratory. Like the PD, the research tasks are usually laboratory games in which each option has a numerical value (representing points or money) to each party which is determined ahead of time by the experimenter. The participants—who only know their own outcomes—pass notes or more often talk to each other until they have agreed, broken off, or reached a time limit.

This body of research can be roughly divided into three phases: (1) A traditional phase between 1960 and about 1985, in which variables and hypotheses were mostly derived from the negotiation literature, PD findings, and informed hunches. (2) An intermediate phase between 1985 and 1995 in which the theory of cognitive heuristics was used to generate hypotheses about negotiator bias. And (3) a current phase, which started around 1990 and is heavily indebted to cognitive and social psychological theory. As the research has moved through these phases, it has become increasingly complex and sophisticated.

### *The traditional phase*

There were two main topics in the formative phase: distributive bargaining, which concerns how far each party concedes and the relative value of the outcome to the two parties, and integrative bargaining, which concerns how well the parties do jointly. Studies of distributive bargaining usually involve negotiation about a single issue, such as a wage rate or the price of a car, while studies of integrative bargaining usually involve negotiation about several issues on which the parties have complementary priorities. The research started with distributive bargaining, most likely because it conforms to the common stereotype of

negotiation as a battle of wits in which each party is trying to get its way and agreement is reached at a compromise.

### *Distributive bargaining*

The first experiments on negotiation were done by psychologist Sidney Siegel and economist Lawrence Fouraker (1960). The study of greatest interest to social psychologists involved levels of aspiration that were produced by instructions in a buyer–seller simulation. When the participants had different levels of aspiration, the one with the higher aspirations earned more money.

The next study and several that followed were inspired by Schelling's (1960) observation that negotiated agreements are often reached at prominent alternatives—options that stand out because they are noticeable (e.g., a river in a land dispute), fair (e.g., a 50–50 split), favored by precedent, or suggested by a mediator. This is because each party can guess that the other will not concede beyond that point since it would seem to embark on a slippery slope. Reasoning that a central alternative would be more prominent than a non-central one, Joseph and Willis (1963) compared negotiation with 5 options to negotiation with 6 options. Agreement was reached more often and more rapidly in the former than the latter condition. Similar effects have been found when prominence was induced by a mediator's suggestion (Eisenberg & Patch, 1976) or by including an option that provided a 50–50 split of profits (Benton & Druckman, 1973).

Besides level of aspiration, there is another internal state that affects negotiator behavior—limit or fall-back position, the level of benefit below which one will not concede. This is a traditional variable in the writings of economists and game theorists. Higher limits have been shown to produce larger initial demands (Holmes, Throop, & Strickland, 1971) and greater resistance to concession making (Kelley, Beckman, & Fischer, 1967). They also lead to fewer agreements; but if limits are unequal, any agreement reached will usually favor the party with the higher limit (Kelley et al., 1967).

Lawyer Roger Fisher and anthropologist William Ury (1981) have argued that limit is often based on a negotiator's BATNA (best alternative to negotiated agreement), the value of the outcome of no agreement. Research supports this assumption by showing that negotiators with more favorable BATNAs concede more slowly and reach more favorable agreements (Bacharach & Lawler, 1981).

Negotiators usually make their offers in sequence. First one speaks and then the other. Research suggests that there is an advantage to making the first offer, because the other party tends to mismatch it—responding to a moderate first offer with ambitious demands and to an ambitious first offer with moderate demands (Chertkoff & Conley, 1967; Liebert, Smith, Hill, & Keiffer, 1968). This is less true of later offers. As with the PD, the tit-for-tat strategy (concede when the adversary concedes, otherwise hold firm) is quite successful in eliciting concessions from the adversary (Komorita & Esser, 1975; Wall, 1977).

In a meta-analysis of 116 earlier findings, Daniel Druckman (1994) identified four conditions that reliably affect concession making and latency of agreement: (1) Developing strategy in consultation with the adversary encourages concession making and early agreement. (2) High time pressure encourages concession making and early agreement. (3) Representing other people (constituents) reduces concession making and slows agreement. (4) Accountability to constituents reduces concession making and slows agreement.

### *Integrative bargaining*

In 1965, labor economists Richard Walton and Robert McKersie published a comprehensive book about negotiation, which distinguished between distributive and integrative bargaining and included a theoretical section about the latter phenomenon.<sup>3</sup> Social psychologists immediately latched onto this topic, which became increasingly popular as interest in distributive bargaining waned.

A main reason for this shift in interest is that single dimensional, distributive bargaining is atypical of most negotiation situations, which usually have “integrative potential.” This means that some options are better for both parties than others. For example, buying a new car is seldom a simple matter of negotiating a price. Dealers usually offer extra products and services that cost them relatively little but may be of considerable value to the customer. Ordinarily, one or several combinations of price and extras are worth more to both parties than a simple compromise on price. Such options are called “integrative solutions,” and the process by which they are found is called “integrative bargaining” or “problem solving.”

Another reason for interest in integrative bargaining is that often agreement cannot be reached without finding an integrative solution because both sides have high limits that preclude

much concession making. A third reason for this interest is that integrative solutions are more likely to be honored and to improve the interparty relationship than are simple compromises (Pruitt, 1981).

The most common tasks used in integrative bargaining studies involve two or more issues on which the parties have complementary priorities, allowing logrolling (tradeoffs). An example of profit schedules from such a logrolling task used in the author’s studies is shown in Table 20.1. The participants have the roles of buyer and seller in a wholesale market. There are three issues, each with prices designated A to F (lowest to highest) and associated profits. The participants can only see their own profits, but they can say anything they wish. Television sets are highest priority for the buyer, because they provide the largest profits; while typewriters are highest priority for the seller. Hence, an integrative solution (i.e., high joint benefit) can be achieved if the buyer gets a low price for television sets and the seller gets a high price for typewriters. Such a tradeoff or logrolling solution is better for the two of them than a simple compromise such as DDD, EEE, or FFF. The most integrative solutions involve A for television sets and I for typewriters. Because of the complementary priorities, this task is said to have logrolling potential, a subclass of integrative potential (Pruitt, 1981; Pruitt & Carnevale, 1993).

Most of the research on integrative bargaining has used one or another variation on this task. Typewriters are old-fashioned and no longer employed. Sometimes the issues are aspects of the sale of a single product, such as length of warrant and delivery date (e.g., De Dreu, Koole, & Steinel, 2000), or features of a shopping mall such as temperature and closeness to the entryway (e.g., Weingart, Bennett, & Brett, 1993). A geographic task is occasionally used in which the issues are regions of a landscape that differ in value to the parties (e.g., Trötschel & Gollwitzer, 2007).

*Table 20.1* Profit schedules (\$) in a logrolling task. From Pruitt (1981, p. 164). Copyright © 1981 Elsevier. Reproduced with permission

<i>Buyer</i>						<i>Seller</i>					
<i>Television sets</i>		<i>Vacuum cleaners</i>		<i>Typewriters</i>		<i>Television sets</i>		<i>Vacuum cleaners</i>		<i>Typewriters</i>	
<i>Price</i>	<i>Profit</i>	<i>Price</i>	<i>Profit</i>	<i>Price</i>	<i>Profit</i>	<i>Price</i>	<i>Profit</i>	<i>Price</i>	<i>Profit</i>	<i>Price</i>	<i>Profit</i>
A	2000	A	1200	A	800	A	000	A	000	A	000
B	1750	B	1050	B	700	B	100	B	150	B	250
C	1500	C	900	C	600	C	200	C	300	C	500
D	1250	D	750	D	500	D	300	D	450	D	750
E	1000	E	600	E	400	E	400	E	600	E	1000
F	750	F	450	F	300	F	500	F	750	F	1250
G	500	G	300	G	200	G	600	G	900	G	1500
H	250	H	150	H	100	H	700	H	1050	H	1750
I	000	I	000	I	000	I	800	I	1200	I	2000

The first use of a logrolling task was in an exploratory study by Kelley (1966). Participants negotiated seven times, each with a slightly different variation of the task. The most interesting findings concerned the frequency and timing of various negotiation tactics. As they gained experience, participants used *positional commitments*—the statement that one's current offer is firm—later in the negotiation. This makes sense because early positional commitments run the risk of failure to reach agreement since they are usually made without knowledge of the opponent's range of acceptable offers. *Package offers*—mentioning all issues in a single proposal rather than talking about one issue at a time—became more frequent as the participants gained experience. This also makes sense because, as later shown by Froman and Cohen (1970), agreeing on one issue at a time makes it hard to find tradeoffs and hence is likely to produce less integrative agreements than agreeing on all at once. *Systematic concession making*—mentioning several different offers at one level of benefit to oneself before conceding to a lower level of benefit and again making several offers—became more frequent as the participants gained experience. A follow-up study showed that systematic concession making produces more integrative agreements than any other sequence of offers (Kelley & Schenitzki, 1972).

After Kelley's studies, most of the traditional research on integrative bargaining was done by the author and his students using the logrolling task shown in Table 20.1 (see Pruitt, 1981). The integrativeness of agreements was measured by joint benefit, the sum of the buyer's and seller's profits. The independent variables were borrowed from earlier PD and distributive bargaining studies. Process measures were obtained by coding participant offers and their statements to one another.

The first true experiment on integrative bargaining (Pruitt & Lewis, 1975) employed an independent variable from Deutsch's PD research: prosocial<sup>4</sup> versus individualistic motivation, both produced by instructions. The data supported our prediction that prosocial motivation would encourage higher joint benefit than individualistic motivation. The apparent reason for this was that the former produced more systematic concession making and the latter more contending (threats, positional commitments, and arguments for one's position). There was another independent variable, limit level, for which we predicted that higher limits would produce greater divergence of interest and hence lower joint benefit. But we got instead an interaction. The social motivation effect was enhanced by higher limits, and the greatest joint benefit was achieved in the prosocial-high limit condition. This makes sense if we assume that high limits force negotiators to look beyond obvious compromises and problem solving gives them the tools to do so. Another finding was that the combination of high limits and individualistic motivation produced the most contentious behavior—arguments for one's demands, commitments to hold firm on these demands, and threats.

The dual concern model was partly based on the interactions just reported. The prosocial motivation condition can be viewed as producing high other-concern and the high limit condition as

producing high self-concern. The model predicts that the combination of high other-concern and high self-concern will produce problem solving behavior which should lead to high joint benefit, as was found. And the combination of low other-concern with high self-concern should lead to contending, as was also found. The results of two follow-up studies also contributed to the development of this model.

In the first of these (Ben Yoav & Pruitt, 1984b), self-concern was again manipulated by limit level, and other-concern was manipulated by telling participants that the negotiation would be followed by a second task in which they would either work together on a common goal (high other-concern) or work individually (low other-concern). In the second replication (Ben Yoav & Pruitt, 1984a), self-concern was manipulated by means of high vs. low accountability to a constituent, and other-concern was manipulated as in the first follow-up study. Both studies found again that the combination of high self-concern and high other-concern produced the largest joint benefit and the combination of high self-concern and low other-concern produced the most contending.

Walton and McKersie (1965) asserted that information exchange about the value of the options under consideration is essential for the development of integrative agreements. Pruitt and Lewis did not find a correlation between information exchange and joint benefit in their first experiment but did in their second, especially for participants who were higher in cognitive complexity and hence more capable of using information obtained. Later studies sharpened this finding, showing that the exchange of *priority* information is what leads to high joint benefit in logrolling tasks—that is, information about which issues are most important to each party (Thompson, 1991; Thompson, Peterson, & Brodt, 1996).

### *Cognitive biases in negotiation*

The “cognitive revolution” began to influence experiments on negotiation in the mid-1980s with research on cognitive biases (see Neale & Bazerman, 1991). The traditional research tasks and dependent variables continued to be used, but the independent variables and some of the mediating variables were new. This research was guided by Kahneman and Tversky's (1973, 1979) theories about cognitive heuristics. Heuristics are cognitive shortcuts that produce judgments and decisions with a minimum of information processing and thought.

One of these heuristics is *availability*, the tendency to rely on highly salient information. Thus Neale (1984) showed that when the cost of a bad agreement was salient, concession making diminished; but when the risk of intervention by an arbitrator was salient, concession making was encouraged.

Perhaps the best known study from this era was done by Bazerman, Magliozzi, and Neale (1985) under the influence of Kahneman and Tversky's (1979) prospect or *framing* theory. Framing is the second heuristic. In a negatively framed set of issues, all of the options involve loss; in a positively framed set, all involve gain. A logrolling task was used with individualistic

motivation and the same frame on both sides of the table. Loss-framed negotiators conceded less and reached fewer agreements than gain-framed negotiators, and the agreements they reached involved higher joint benefit. Later studies showed that loss-framed negotiators have higher limits, use more contentious tactics, and take longer to reach agreement than gain-framed negotiators (De Dreu, Carnevale, Emans, & Van de Vliert, 1995). A possible explanation for these effects is that people are more alarmed by loss than pleased by gain and hence concede more slowly. Another follow-up study found that, in mixed-frame dyads, final agreements reflect the wishes of the loss-framed negotiator more than the gain-framed negotiator (Bottom and Studt, 1993). This can be predicted from their differing concession rates.

Carrying this research a step further, De Dreu, Emans, and Van de Vliert (1992) showed that negotiators tend to develop the same frame regardless of how they start. If both start with a positive or a negative frame, that frame continues. But if one frame is positive and the other negative, both end up acting as if they had a negative frame. This resembles Kelley and Stahelski's (1970) PD finding that a cooperator interacting with a competitor usually ends up in the DD trap.

A third Kahneman and Tversky heuristic is *representativeness*, the tendency to make judgments on the basis of more obvious features of a situation, ignoring less obvious features such as statistical evidence. This leads to the use of stereotypes, as in a study by De Dreu, Yzerbyt, and Leyens (1995) where negotiators were less conciliatory toward purported business students than purported divinity students.

A fourth heuristic is *anchoring*, the tendency to assimilate judgments and behavior to salient reference points. The earlier mentioned tendency to mismatch the opponent's first offer has been explained as an anchoring effect. In support of that explanation, Galinsky and Mussweiler (2001) were able to eliminate mismatching by diverting attention away from the opponent's offer and to the opponent's probable BATNA.

Two other negotiator biases have been detected outside the Kahneman and Tversky framework. One is the *fixed-pie bias*—the assumption that there is no integrative potential. In a logrolling task, this would mean that the opponent's preferences are viewed as exactly opposite our own. Thompson (1990) found that this bias is quite pervasive and produces low joint benefit but diminishes with experience. The second bias is *reactive devaluation*, the downgrading of proposals coming from the opponent (Ross & Stillinger, 1991). Neale and Fragale (2006) suggest that reactive devaluation results from the fixed-pie bias; if the opponent's interests are exactly opposite ours, their proposals must not be in our best interest.

The studies described above used students as participants, so the question arose of whether expert negotiators would show the same biases. To answer this question, Neale and Northcraft compared students (amateurs) with experienced real-estate agents (experts). While not showing the fixed-pie bias, the experts still exhibited a framing bias (Neale & Northcraft, 1986) and an anchoring bias (Northcraft & Neale, 1987).

### Recent research

The past 25 years has seen a rapid growth in negotiation research. This is partly because negotiation has become increasingly important in society, as groups and organizations have become less hierarchical. It is also because of (and contributory to) the existence of six journals that are at least partly devoted to negotiation, most of them recently founded: *Negotiation Journal*, *Negotiation and Conflict Management Research*, *International Negotiation*, *Group Decision and Negotiation*, *Journal of Conflict Resolution*, and *International Journal of Conflict Management*. Finally, there has been a proliferation of professional groups that host gatherings of negotiation scholars, including the International Association for Conflict Management, the Conflict Management Division of the Academy of Management, and biennial meetings at *Negocia* in Paris. In this period, laboratory research with experimental games has still been king.

Research in the modern era will be presented under four headings: Two of these—emotion and culture—are topics that have long interested social psychologists and have eventually made their way into the study of negotiation. The third topic—stages and turning points—has been a perennial topic for negotiation theorists in other disciplines but has only recently been studied empirically as a result of the development of new time series methods for data analysis. The fourth topic is, in several ways, the most interesting. Social psychologists have begun to explore the boundary conditions for effects found in earlier research . . . the conditions under which these effects appear and disappear. This research is more sophisticated than most earlier research, making predictions on the basis of recent psychological theory, employing factorial designs instead of single variable designs, and often illuminating the dynamics underlying earlier effects.

### Affect

The earliest studies of affect explored the impact of mood on negotiation behavior. Positive mood was found to encourage concession making (O'Quin & Aronoff, 1981), reduce contending, increase joint benefit (Carnevale and Isen, 1986), and encourage confidence about success in negotiation (Kramer, Newton, and Pommerenke, 1993). By contrast, negative mood and emotion were found to increase contending (Forgas, 1998) and diminish joint benefit (Allred, Mallozzi, Matsui, & Raia, 1997). Interestingly, both positive and negative moods have less impact on behavior when negotiators are higher in Machiavellianism and need for approval (Forgas, 1998). This suggests that mood effects are diminished when people have clear interpersonal goals.

More recently, there has been a shift from studying the impact of negotiator affect to studying the impact of knowledge of the opponent's affect. A study done in the Netherlands showed that people who learn that the opponent is angry make less ambitious demands than those who learn that the opponent

is happy (Van Kleef, De Dreu, & Manstead, 2004a). This effect may at least partly be due to assumptions about the opponent's limit. Anger implies that the opponent has a high limit and will not concede very much, so the negotiator must demand less in order to reach agreement. Happiness implies the opposite.

Strangely, the effect of displayed emotion has not been studied. Two opposing hypotheses can be ventured. On the one hand, negative emotional displays may produce conflict spirals that lead to low joint benefit (Brett & Gelfand, 2006). On the other hand, both positive and negative displays may transmit information about how strongly the parties feel about each issue and hence contribute to successful logrolling and high joint benefit (Barry, Fulmer, & Van Kleef, 2004). Research is needed to sharpen and test these opposing hypotheses.

### Culture

All of the traditional negotiation findings have been based on Western participants, and most researchers have blithely generalized these findings to the rest of the world. However, a flurry of research in the past 10 years has questioned this kind of thinking. It turns out that people in non-Western cultures often differ from the West in the way they handle conflict and negotiation (Brett & Gelfand, 2006; Gelfand & Cai, 2004; Tinsley, 2004).

Western society tends toward individualism, where the main goal is to maximize own benefit, whereas much of the rest of the world tends toward collectivism, where the main goal is maximizing group success (Hofstede, 1980). Along with collectivism goes a stronger interest in developing and maintaining positive relations with others, even when they are adversaries. Thus Hong Kong social psychologist Kwok Leung (1987) found that Chinese (collectivists) in contrast to Americans (individualists) showed a stronger preference for using consensual procedures (negotiation and mediation) to resolve conflict and a weaker preference for arbitration, which often puts a strain on relationships.

The following story from Brett and Gelfand (2006) shows sensitivity to the Japanese collectivist concern about maintaining relationships (by preserving the opponent's face).

A Westerner, visiting a plant that was producing bicycles that the Westerner had sold to a German buyer, determined that the bicycles rattled. Concerned that the buyer would not accept the shipment, he took the plant manager out for a ride, remarked that the German buyer of the bicycles was concerned about precise engineering, and went back to Hong Kong. The bicycles were free of rattles when they arrived in Germany.

(pp. 192–193)

The story also illustrates high-context communication, which is more common in non-Western than in Western societies, where low-context communication predominates.<sup>5</sup> In high-context communication, meaning is conveyed by what is said (the Germans want precise engineering) *in the context of* the circumstances (the bicycle ride). In low-context communication, it is

spelled out in so many words (“Your bicycles rattle”). Adair's research on negotiation (Adair, Okumura, & Brett, 2001; Adair, Weingart, & Brett, 2007) gets heavily into this distinction. She finds that negotiators from high-context cultures engage in less information exchange and make more offers and earlier offers than those from low-context cultures. They are skilled at drawing inferences about the other party's priorities from his or her offers and use this information to achieve joint benefit that is as high as is achieved by negotiators from low-context societies.

### Stages and turning points

Observers of real-life negotiation have often identified two stages: distributive bargaining followed by integrative bargaining (Pruitt, 1981). In addition to signaling strength to the other negotiator, the harsh initial strategy is a way for representatives to impress constituents with how well they are doing their job. The shift to the second stage may be due to what Zartman (2000) calls a “hurting stalemate,” a sense on both sides that the negotiation is going nowhere and a new strategy is needed.

Research on naturally occurring stages has been facilitated by the work of communication scholar Linda Putnam (e.g., 1990), who developed time-series methods to trace changes in negotiation behavior. Evidence of the two-stage distributive-to-integrative sequence was found in a laboratory study by Lytle, Brett, and Shapiro (1999). In another study, Olekalns, Smith, and Walsh (1996) found several patterns over time, but only the distributive-to-integrative pattern yielded high joint benefit. In still another study, Olekalns, Brett, and Weingart (2003) found a four-stage variant of this pattern: distributive proposals followed by distributive arguments followed by problem development followed by a search for integrative solutions. Other four-stage patterns also were found, but the one just described was the most common.

Quite recently, Adair and Brett (2005) combined stage theory with a cultural variable. The same laboratory negotiation task was employed in eight cultures, four of them high-context and four low-context. Four stages were found that were uniform across all of the cultures: relational positioning (distributive), followed by identifying the problem (integrative), followed by suggesting solutions (distributive), followed by reaching agreement (integrative). However at each stage, high-context negotiators behaved differently from low-context negotiators in the manner mentioned in the section on culture.

In 34 accounts of international negotiations, Druckman (2001) observed abrupt changes from competitive to cooperative behavior or vice versa, which he called “turning points.” 75% of the turning points were positive (competitive to cooperative) and 25% were negative. These turning points could be traced to both external events (e.g., a change of government) and internal events (e.g., development of a new idea during negotiation).

Independently of Druckman's research, Olekalns et al. (2003) coded negotiator utterances for “interruptions”—statements that the conversation was not moving toward agreement.

These were usually made during a distributive period and produced a shift toward integrative bargaining; in other words, a positive turning point.

#### *Boundary conditions for earlier effects*

The most unique recent development has been the use of factorial designs to examine the boundary conditions for effects identified earlier. Some of these studies used sophisticated cognitive and social psychological theory to identify the mechanisms underlying these earlier effects and hence would not have been possible until these theories became available.

Two of the studies manipulated or measured prosocial versus individualistic motivation, a variable Deutsch used in his early studies of the PD. They showed that effects discovered earlier disappear when a prosocial motive is substituted for an individualistic motive. Thus, under individualistic motivation, Carnevale and Lawler (1986) were able to replicate an earlier finding by Yukl, Malone, Hayslip, and Pamin (1976) that high time pressure diminishes joint benefit. But this effect disappeared under prosocial motivation, apparently because high time pressure did not produce contending.

Similarly, under individualistic motivation, Weingart et al. (1993) were able to reproduce an earlier finding by Froman and Cohen (1970) that there are more impasses and lower joint benefit when issues are encountered sequentially rather than simultaneously. But this effect disappeared under prosocial motivation because the parties exchanged information about the value of the issues and engaged in explicit reciprocity. The latter finding is especially important because real-life bargaining usually follows sequential rather than simultaneous agendas. As life unfolds, most issues must be dealt with one by one. The finding shows that prosocial motivation permits the achievement of high joint benefit despite this handicap. One party yields when it learns that an issue is more important to the other party than to itself and the other party then reciprocates this courtesy.

In an experiment that derived from the emerging field of cultural studies, Gelfand and Realo (1999) reproduced, with individualists, the standard finding that accountability to constituents encourages contending and reduced joint benefit (e.g., Ben-Yoav & Pruitt, 1984a). But accountability had the opposite effect for collectivists, encouraging cooperation and high joint benefit. One possible explanation is that the effect of accountability depends on the motives imputed to one's constituents, and individualists impute individualistic motives while collectivists impute prosocial motives.

A factorial design was also used to better understand why negotiators concede more to angry than to happy opponents. As mentioned earlier, a possible explanation is that an angry opponent is seen as having a high limit and little inclination to concede, which means that the negotiator must make more concessions to reach agreement. Two Dutch and an English social psychologist, Van Kleef, De Dreu, and Manstead (2004b), reasoned that such complex inferences are a cognitively rich

enterprise. Hence, the effect should disappear when epistemic motivation—the desire to make well-informed judgments about the world (see Kruglanski, 1989; Webster & Kruglanski, 1994)—is weak. They confirmed this hypothesis in a study where epistemic motivation was measured as a personality variable and in another where it was diminished by means of time pressure.

The final studies of this kind concerned boundary conditions for some of the cognitive biases described earlier. The Galinsky and Mussweiler (2001) study reported earlier is an example. The reader will recall that these investigators were able to eliminate the tendency to mismatch the other party's first offer by instructing bargainers to focus their attention on the other party's BATNA.

Another line of research hypothesized that high epistemic motivation should diminish or eliminate negotiator biases, because the cognitive heuristics that underlie them are shortcuts that require little information processing and thought. High epistemic motivation reduced an anchoring bias and completely eliminated a representativeness bias (De Dreu, Koole, & Oldersma, 1999), while low epistemic motivation strengthened a representativeness bias and prevented the fixed-pie bias from disappearing with experience (De Dreu, 2003).

Finally, a related study was performed by German psychologists Roman Trötschel and Peter Gollwitzer (2007) within the framework of Gollwitzer's (1999) theory of implementation intentions—plans for how to pursue a goal. This theory holds that implementation intentions shield goals from disruption by extraneous forces. Since such shielding makes goal achievement more automatic, implementation intentions should also free the mind for more information processing and creative thinking. Both effects should counteract cognitive heuristics and hence overcome negotiator biases.

The investigators were able to replicate the earlier finding (Bottom and Studt, 1993) that negatively framed negotiators concede more slowly and achieve greater benefit than positively framed negotiators. But this advantage was eroded when the participants were given a goal of finding a fair solution, and it completely disappeared when an implementation intention was added: "If I receive a proposal . . . then I will make a fair counterproposal."

#### **Conclusions**

Negotiation research is the elephant in the room—popular for the last 50 years and still growing. Part of the reason for this is that most management schools now teach courses on negotiation that are staffed by scholars trained in social psychology. But the development of these courses reflects a larger reality: that negotiation has become an extremely important part of decision making in the modern world.

There have been three major turning points at which the research became more complex and sophisticated. One was the shift from research on distributive bargaining to research on integrative bargaining, which is now the dominant theme. The

latter topic was embraced by social psychologists because most negotiations are multidimensional and have integrative potential and because integrative solutions contribute to reaching and adhering to agreements. The second turning point was a shift from basing hypotheses on hunch and the earlier negotiation literature to basing them on psychological theory. This trend started with research on negotiator biases, which was based on the theory of cognitive heuristics, and continued with research on affect and culture. A small body of research on stages and turning points in negotiation also developed at this time, stimulated by advances in time-series analysis. The third and final turning point was the growing use of factorial designs involving sophisticated moderating variables to explore the boundary conditions for earlier findings.

Negotiation research has taught us much of value, but there are problems with this field that will be discussed at the end of this chapter.

### Research on mediation

Mediation is usually defined as a third party helping disputants to settle a conflict (Conlon & Meyer, 2004). It can be distinguished from arbitration, in which a third party decides the outcome of a dispute. Mediation probably dates back to the earliest humans, as a primitive form is found in chimpanzees (Carnevale, Cha, Wan, & Fraudin, 2004).

Most social psychological studies of mediation are unrelated to each other, though a few findings overlap. Some of the studies were done by negotiation researchers, who used experimental games. But this research has more often been done in the field, even by negotiation researchers. A summary and critique of this research tradition can be found in Kressel (2006).

The first well designed study of mediation (Pruitt & Johnson, 1970) was an experiment using a single dimensional distributive bargaining task with a mediator present. It supported a hypothesis, put forward by labor economist Carl Stevens (1963), that a mediator's recommendation will relieve the sense of weakness associated with making concessions. A second experiment by the same authors (Johnson & Pruitt, 1972) verified another hypothesis from labor relations: that negotiators concede more rapidly if a deadlock will bring them into arbitration rather than mediation. A probable explanation for this finding is that participants in the former condition wish to avoid losing control of their conflict to the arbitrator.

In the same year, a very different kind of study was published by Kenneth Kressel (1972), a student of Deutsch. He interviewed 13 labor negotiators and reported on the techniques they used and their views about the components of mediator success. A majority of Kressel's respondents felt that mediator neutrality was a prerequisite to success, but a minority argued that mediators should establish closer relations with the more recalcitrant party—the union in that era. Kressel classified mediator tactics into three categories: reflexive (establishing rapport with the parties, understanding the issues), nondirective (keeping the

negotiations going, helping the parties develop priorities), and directive (commenting on disputant proposals, making suggestions). Two decades later, this classification scheme was supported in a factor analysis of mediator decisions (Lim & Carnevale, 1990) and multidimensional scaling of mediator judgments (McLaughlin, Carnevale, & Lim, 1991).

The high point of mediation research came in the 1980s and early 1990s. The era began with an innovative book edited by another Deutsch student, Jeffrey Z. Rubin (1981), in which conflict specialists from several disciplines analyzed Kissinger's shuttle diplomacy after the October War in the Middle East.

In the mid-1980s, Jean Marie Hiltrop (1985, 1989), a British student of Rubin, did two questionnaire studies involving hundreds of cases of labor mediation in Britain. Mediator tactics that were broadly effective included meeting separately ahead of time with the disputants, helping disputants navigate relations with their constituents, and threatening to quit when there was no progress. The effectiveness of other mediator tactics was contingent on the circumstances; for example, forceful interventions produced agreements when disputants were hostile to one another but were counterproductive when they were friendly. The latter finding has been replicated in other settings by Donohue (1989) and Lim and Carnevale (1990).

Around the same time, the author of this chapter, dissatisfied with the narrow scope of his laboratory studies, sought a field setting in which he could manipulate and measure variables on enough cases to do statistical tests. Such a setting materialized when a community mediation center was opened in nearby Buffalo (see Pruitt, 1995). That center allowed him and his students to do two studies. The first was a field experiment in which mediation cases were randomly assigned to conditions that differed in the way a deadlock would be handled (McGillicuddy, Welton, & Pruitt, 1987). When the mediator would become an arbitrator (med/arb), the disputants were less hostile toward each other and generated more ideas for settlement than when the case would simply be dropped (control). This finding was predicted because of the earlier laboratory finding that the threat of arbitration produced more concessions than the threat of mediation (Johnson & Pruitt, 1972). Also, if the disputants were not moving toward agreement, the mediator was more forceful under med/arb than in the control condition. This suggests that mediators are aware of the dynamics mentioned at the end of the paragraph on Hiltrop.

The aim of the second study was to examine the antecedents of short-term success (reaching agreement, immediate disputant satisfaction) and long-term success (compliance, later satisfaction). Short-term success was more frequent when there was less hostility and more joint problem solving and when the mediator structured the discussion and solicited new ideas and reactions to them (Zubek, Pruitt, McGillicuddy, Peirce, & Syna, 1992). Long-term success was unrelated to short-term success (Pruitt, Peirce, McGillicuddy, Welton, & Castrianno, 1993), probably because of new conflicts that were not anticipated in the agreement. Complainants voiced more long-term

satisfaction when respondents saw the mediation procedure as fair, perhaps because compliance with agreements mainly falls to respondents, who are happier with agreements that were reached through fair procedures.

A wide array of tactics is available to mediators (Wall & Lynn, 1992). Peter Carnevale, a former student of the author, used laboratory techniques to examine how mediators choose among them. He developed a strategic choice model (Carnevale, 1986), which postulates two perceptual dimensions: mediator concern for the parties' aspirations (PA) and mediator perceptions of common ground between the parties (CG). High PA and high CG predicts mediator problem solving; high PA and low CG predicts mediator compensation (promising rewards for concessions); low PA and high CG predicts mediator inaction; low PA and low CG predicts mediator pressure. All four of these hypotheses were supported in a laboratory experiment (Carnevale & Conlon, 1988).

The most persistent researcher in this subfield is James Wall. In 1989, he and law professor Dale Rude did several surveys of judges and lawyers to assess the status and effectiveness of judicial mediation in pretrial conferences. They found that when more money was involved, judges projected that a case would take more court time and worked harder to achieve a pretrial mediated settlement. In addition, judges believed that they were more successful when they used more assertive tactics. Wall has also described traditional mediation practices around the world, including mediation in China, Japan, Korea, Hawaii and Malaysia (Wall, Blum, Callister, Kim, & Sohn, 1998; Wall & Callister, 1995, 1999).

Social psychological research on mediation has almost disappeared in the past 10 years. Only two studies could be located. The reason for this is unclear, as mediation is still a vigorous field of practice, and research on mediation continues in other disciplines (see Herrmann, 2006).

One of these studies (Conlon, Moon, & Ng, 2002) was an experiment showing that arb/med, in which an arbitrator's judgment is made and sealed before mediation starts, is a superior to med/arb for achieving integrative agreements. The other study (Kressel & Gadlin, 2009), looked at 18 completed mediations done by the Office of the Ombudsman at the National Institutes of Health (NIH). Mediators appeared to be choosing between two scripts: a tactical problem-solving script, which sought to resolve the presenting issues, and a deep problem-solving script, which sought to discover and resolve unspoken underlying issues. They preferred the latter script but used the former if the issues were minor or the participants could not handle deep analysis. When they employed the deep problem-solving script, they started with three diagnostic questions that reflected dynamics they had seen in the past: (1) Is the conflict due to a dysfunctional communication pattern? (2) Has an investigator's scientific autonomy been blocked? (3) Are there major systems problems in the affected office or division? The broader implication of this research is that professional mediators of all kinds may develop a set of scripts from which they choose in handling new cases.

## Practice

### *Conflict resolution*

Though conflict resolution is a huge field with thousands of practitioners, very few social psychologists are among them. Kressel is an exception. He mediates family disputes and wrote a book about divorce therapy and mediation (Kressel, 1985). Two other members of this small coterie—Herbert Kelman and D. W. Johnson—have achieved fame as conflict resolution innovators.

Building on techniques pioneered by international relations specialist John Burton (1969), Kelman (1972, 2002) has conducted a long series of problem solving workshops, in which prominent citizens of conflicting nations and/or political groups meet under the leadership of scholars to try to understand their conflict and develop means to solve it. Kelman's workshops are designed to help participants understand the needs, fears, and identity dynamics that produce and result from their conflict and the self-perpetuating escalatory processes identified by White; also to encourage the participants to empathize with the other side's position without abandoning their own. Still another aim is to "transfer these changes to the political arena" (Kelman, 2002, p. 175).

In an evaluation of nine workshops performed by Kelman and other scholars, R. J. Fisher (2005) found that participants developed "more accurate perceptions and more positive attitudes" and that there were clear transfer effects. Furthermore, it is known that some of the participants in the Northern Ireland peace process and the Israeli–Palestinian Oslo talks had earlier workshop experience. These findings suggest that communication between groups in highly escalated conflict is not so hopeless as suggested by Sherif's experiments.

D. W. Johnson, another Deutsch student, has devoted most of his career to developing and implementing teaching methods involving cooperation and conflict resolution. His Teaching Students to be Peacemakers Program (Johnson & Johnson, 2005) is used around the world at all grade levels. His method involves training an entire class or grade in problem solving and then in mediation. Finally, two class members work together as mediators each day, and all students mediate at some time during the year.

Johnson's program has been extensively evaluated, unlike most school mediation programs. In a meta-analysis of 16 evaluation studies (Johnson & Johnson, 2002), he found that most students recalled the elements of their training a year later, reported using these techniques inside and outside the classroom, and employed them in simulated conflicts. By contrast, untrained students were found to make predominant use of contentious and withdrawal tactics in their conflicts.

### *Advice and assistance to negotiators*

Books of advice to negotiators go back at least as far as de Callières (1716/2000). In the modern day, books of this kind include the ever popular *Getting to YES* (Fisher & Ury, 1981), *Negotiating rationally* (Bazerman & Neale, 1992), and



*Negotiating globally* (Brett, 2007). The last two of these are research-based, as are many of the workshops and institutes now available to negotiators. There are also a large number of practical university courses. Prominent research-based textbooks for these courses include *The mind and heart of the negotiator* (Thompson, 2008) and *Negotiation* (Lewicki, Barry, & Saunders, 2009). Training is clearly a growth industry.

What is new to this subfield is scientific efforts to evaluate training programs. Thus Weingart, Hyder and Prietula (1996) trained one group of participants with a memorandum describing six negotiation tactics and provided no training to a control group. In subsequent laboratory negotiation, trained participants showed more integrative behavior (e.g., requesting and giving information about their priorities) and achieved higher joint benefit than did untrained participants. In a subsequent study (Weingart, Prietula, Hyder, & Genovese, 1999), this effect was explained by showing that the training led to more reciprocation and longer chains of integrative behavior.

Negotiator support systems have been around since 1989 (Pruitt & Carnevale, 1993). One of the most interesting systems, which is designed for international negotiators, has been developed by Druckman, Harris, and Ramberg (2002). Negotiators enter information about the current state of their negotiation into a computer. The computer then assesses whether they are headed toward a deadlock and, if so, why. Based on this diagnosis, it provides research-based advice. This system was evaluated with multiple runs of a simulated international negotiation (Druckman, Druckman, & Arai, 2004). Negotiator use of the support system led to more agreements and fewer deadlocks than simply thinking about what was happening in the negotiation.

### Overall conclusions

There has been clear progress in the social psychology of conflict and negotiation since Sherif's boys' camp studies. Both theory and research have moved forward vigorously. Theory has advanced in a number of realms; and researchers have learned a lot about the PD, mediation, and negotiation, while testing increasingly sophisticated hypotheses about negotiation. Indeed, research on negotiation has developed to the point where practitioners are willing to pay for advice from researchers. Also, problem solving workshops, the field's most important contribution to conflict resolution methodology, are ever more popular. Another advance in the field is its greater attention to cultural differences and the increasingly international identity of its researchers.

Still there are significant weaknesses in the field. One problem is the inadequate link between theory and research; conflict research has not produced much theory and conflict theory has not produced much research. A second problem is the narrowness of the topics under study in empirical research; most phenomena related to conflict and negotiation are not being studied. A third problem is undue reliance on experimental games, which are based on narrow assumptions unchanged from the work of 19th-century economists.

### *Inadequate link between theory and research*

The output of most studies in this field is *findings*, sometimes with explanations that are occasionally supported by data. These findings can be categorized and listed end to end, but they have seldom been synthesized into broader theories. There is also a rich theoretical tradition, which concerns the origin of conflict, strategic choice, escalation, and de-escalation, among other topics. Many testable hypotheses can be derived from these theories, but researchers have largely ignored them. How can this be explained?

Consider the case of escalation theory, which has been developed over a 40-year period, starting with White's ideas about vicious circles and the psychological processes that maintain highly escalated states. To my knowledge, there have been only three empirical studies of this phenomenon (Brett, Shapiro, & Lytle, 1998; Bui-Wrzosinska, 2005; Mikolic, Parker, & Pruitt, 1997), and none of them produced persistent escalation. My guess is that the problem derives, at least in part, from the brief time span of the typical laboratory experiment. Escalation takes a while to develop and even longer to solidify, with the development of structural changes and group narratives. An hour of a participants' time may simply not be enough to study this phenomenon adequately.

### *Narrowness of the topics under study*

There is also too little innovation in the topics under study. Consider the case of negotiation, the elephant in the room. Siegel and Fouraker (1960), who did the first experiments in this subfield, studied the negotiation episode: negotiator behavior, its immediate antecedents, and its immediate impact. Today, 50 years later, most social psychologists still focus on this self-same issue. This subfield is in a rut.

There are many other important issues in and around negotiation that could be and should be studied with social psychological methods. Most of them have been explored by scholars in other fields, especially international relations—and the names of these scholars will be mentioned as we go through a partial list.

- 1 Under what conditions do parties go into negotiation? Social psychologists *have* looked at this topic in a few studies of procedural choice (Leung, 1987; Thibaut & Walker, 1975). But there has been no research on how severe conflicts begin to de-escalate and move toward negotiation, a central issue in Zartman's (2000) ripeness theory.
- 2 Through what stages do parties move as they approach negotiation? International relations scholar Christopher Mitchell (2000) has written about signals and other gestures that often precede negotiation. Secret back-channel communication in advance of and during negotiation is often very important. In negotiations of any complexity, there are also pre-negotiation talks in which the issues are explored, an agenda drawn up,

and logistics addressed (Stein, 1989). Two social psychologists, Druckman (1986) and the author (Pruitt, 1997, 2007), have done international case studies to examine these phenomena. But experimental social psychologists have not looked at them.

- 3 How do groups prepare for negotiation? How do they navigate the thicket of stakeholders who are trying to push the terms of the agreement in various directions? The laboratory research on representation and accountability to constituents only scratches the surface of this problem. Working in the context of international negotiation, political scientist Robert Putnam (1988) and the current author (Pruitt, 1994) have theorized about this issue, but no researchers have taken up the challenge.
- 4 What determines the long-term success of negotiation—compliance with the agreement, avoiding a resumption of the conflict, and so on? This is an important topic in international relations (e.g., Roeder & Rothchild, 2005). But the issue is addressed by only one social psychologist—the author in his second study of community mediation (Pruitt et al., 1993)—and that study has had no impact on main-stream negotiation research.

Even within the negotiation episode, two issues are largely ignored by experimentalists, despite their clear importance in real life.

- 5 How do negotiators cope with the complex issues usually found in negotiation? This requires a focus on the content under discussion that is foreign to most social psychological research. Again, international relations theory to the rescue: Zartman (1977) has argued that in complex negotiations, disputants usually first develop a formula—an outline of the agreement—and then fill in the details.
- 6 What is the role of justice considerations in negotiator behavior and negotiation outcomes? There is evidence that international negotiators often seek fair solutions (Zartman, Druckman, Jensen, Pruitt, & Young, 1996) and that procedural justice is important for long-term success in community mediation (Pruitt et al., 1993). Furthermore, there is a speculative chapter on justice and negotiation in an edited book on the social psychology of negotiation (Tyler & Blader, 2004). But researchers have largely ignored this topic.

### **Methodological limitations**

Besides being in a substantive rut, most negotiation researchers are in a methodological rut, though the same cannot be said about the handful of mediation researchers. The experimental gaming tradition, which underpins most negotiation (and PD) experiments, embodies sharply limiting assumptions that go back to early negotiation theorists such as Edgeworth (1881).

These preclude study of many common negotiation phenomena and cast doubt on the generality of many findings. One assumption is that outcomes are tangible and quantifiable—the numbers in a negotiator's profit schedule—and hence can be easily compared to locate possible tradeoffs and compromises. Yet cognitive theorists understand that decision making often involves multiple hard-to-compare dimensions (Fiske & Taylor, 1991), and some international relations theorists argue that negotiator demands often derive from basic human needs that cannot easily be compromised or traded for other benefits (Azar, 1990; Burton, 1990).

A second limiting assumption is that the issues and outcomes are fixed and immutable, since they are always predetermined by the experimenter. This means that the participants in these studies cannot probe for underlying issues—a standard tactic for most sophisticated negotiators. A related limitation is that outcome values are fixed and immutable, again assigned by the experimenter. This allows no re-evaluation of the options and no credible efforts to persuade the opponent to re-evaluate them. Yet these are staples of real-life negotiation.

Another element of the methodological rut is the nearly exclusive use of logrolling tasks (see Table 20.1) for studying integrative bargaining. The author (Pruitt & Kim, 2004) has identified five and Carnevale (2006) eight types of integrative agreements, only one of which involves logrolling. Until other types of integrative agreement are studied, the generality of the findings on this topic will be suspect.

Methodological limitations probably underlie many of the substantive limitations that were mentioned in the previous subsection. Thus, how can one study the conditions or stages of entry into negotiation when participants are routinely placed in a negotiation task at the outset? How can one study inputs from stakeholders when the issues and valuations are fixed by the experimenter? And how can one study long-term success when agreements specify numerical outcomes rather than future behavior? In addition, our laboratory tasks are not sufficiently complex for formula-detail stages to develop.

Alternative laboratory tasks are clearly needed. Interested researchers should look at the following conflict experiments that did not employ experimental games: Arad and Carnevale (1994); Brett, Shapiro, and Lytle (1998); Druckman, Broome, and Korper (1988); and Mikolic, Parker, and Pruitt (1997).

Social psychologists also should do much more research in naturalistic settings or with case materials from these settings. Many of the hypotheses that have been tested in the laboratory were originally developed from naturalistic observations. To devise hypotheses about neglected issues, it seems essential to look at case material, to see how negotiators behave in real life. It is also possible, though by no means certain, that some of these issues are so complex and extended in time that laboratory research will never be fruitful. If so, the sophisticated multivariate and time-series methods that are now available for data analysis should be used on data sets collected in the field.

Social psychologists who have used case material to develop theory include Druckman (1986), Pruitt (1997, 2007), and

White (1968, 1984). Those who have done statistical studies of negotiation in naturalistic settings include Brett, Friedman, and Behfar (2008); Irmer and Druckman (2009); Taylor and Thomas (2008); and Tjosvold, Yu, and Wu (2009).

Tackling new issues, developing new laboratory methods, and analyzing messy field data take time and may slow an investigator's publication rate. Hence, some graduate students and assistant professors who are trying to build their resumés may want to look at traditional issues with traditional methods. But beyond tenure, there is little excuse for scholars in this field to keep grinding in the same groove.

## Notes

1. Personal communication from Herbert C. Kelman.
2. Deutsch used the term "cooperative."
3. The concept of integrative bargaining, or "integration" as she called it, was originally devised by Mary Parker Follett (1940), an early business consultant.
4. Called "problem-solving" motivation in this study.
5. These concepts were developed by anthropologist Edward T. Hall (1976).

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