

ENVIRONMENTAL DISPUTES

Competition for Scarce Resources and Clashing of Values

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ENVIRONMENTAL DISPUTES ARE often difficult to resolve because they involve scarce resources and touch on people's core ideological beliefs. Everyone is a stakeholder in the use of the environment and its resources. Consider the dispute over the Arctic National Wildlife Refuge, nineteen million acres in the northwest corner of Alaska designated by President Jimmy Carter in 1980 that environmentalists called the last intact and protected Arctic ecosystem. The refuge, the chief calving ground for the porcupine caribou herd, 150,000 of which migrate to the shores of the Arctic Ocean during the summer, was also believed to be the last chance for a major oil strike in the United States, according to Alaskan leaders and oil-industry officials. The dispute over oil drilling in the refuge

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focused on the potential effects of development on the caribou and the impoverished Gwich'in Indians, who depended on the herd for food.

The dispute appeared to be a complex tangle of issues, parties, values, beliefs, information, and ideology. Bob Childers, advocate for Alaska's Gwich'in Indians, opposed the drilling. The state of Alaska struggled for more than two decades to open the refuge to oil and gas exploration, which would improve the lives of Alaskans. Polls indicated, however, that a majority of Americans opposed developing a remote refuge that few would ever see. The Republican Congress approved the drilling for oil in the preserve in a measure intended to raise \$1.3 billion to reduce the deficit. But a dispute developed within the Republican ranks. Moderate Republicans showed weak support for the drilling, and a disagreement over how to split the drilling revenues erupted. The economic arguments against drilling were bolstered when the U.S. Geological Survey halved its initial estimate of how much oil lay beneath the land.

There were benefits to oil drilling. Neighbors of the Gwich'in, the Inupiat people, who initially feared environmental damage from drilling, began to fear that they would lose the benefits from the \$120 million in oil-related revenues each year from the Alaskan pipeline. As Isaa Akootchook, a village leader for the Inupiat, said as he watched Monday Night Football on his TV, "We used to be against [oil development] because we didn't know about these things. This [drilling] will be good for the Inupiat people" (Delios, 1995, p. 1).

The refuge battle was carried out with extensive direct-mail campaigns and full-page ads in far-off newspapers. This Alaskan refuge battle is an example of how the environment is a symbol for our self- and world-views as well as a resource to be allocated. As with most important issues, one's position on environmental issues provides a medium for the expression of fundamental values, beliefs, and ethics concerning the world. In this chapter, we suggest that environmental disputes are different from other types of conflicts most commonly dealt with in the negotiation literature. We have both a theoretical and a practical mission. In the sections that follow, we analyze environmental disputes from a behavioral negotiation point of view, identify the key obstacles to effective dispute resolution, and show how to create movement in seemingly intractable environmental disputes. We provide a review of the key concepts and elements of behavioral negotiation research and relate those concepts to the analysis of environmental disputes. We do not attempt to review environmental issues and the foundations of the ideologies that underlie them (see Hoffman and Ehrenfeld, 1995; Susskind, 1990; Egri and Pinfield, 1994; Colby, 1989; Gladwin, Kennelly, and Krause, 1995, for overviews).

Behavioral Negotiation Framework

Negotiation is a joint decision-making process through which interdependent persons mutually decide how scarce resources will be allocated. *Mutual* decision making is a necessary component of negotiation. If one party has complete authority over the other party, negotiation cannot occur. Whereas environmental disputes can occur even when only one party gets to make the decision, negotiations require that more than one party have decision-making power. Negotiations must also involve a range of feasible outcomes. If one person must choose between total victory or yielding completely, no bargaining can occur.

Key Elements

According to Thompson and Hastie (1990a), the key elements of a negotiation include the parties, the issues, the parties' interests concerning the resources at stake, the communication that occurs between parties, and the outcomes of the negotiation. The parties are people who have a stake in the negotiation and who have decision-making authority. The parties represent their own interests or the interests of a constituency; a party may be a team, group, or larger collective. In the Alaskan preserve dispute, the parties included the native Gwich'in Indians, the oil companies, Congress, the president, and the American people. The *issues* were the concerns held by each party in the dispute, such as the type of drilling, extent of drilling, and its effects on wildlife and on indigenous persons.

The *interests* of parties refer to their preferences for the issues to be resolved (for example, the Republican Congress is interested in development to minimize the national debt; the Gwich'in Indians and other environmentalists want to preserve their natural way of life). In most negotiation situations, people do not have complete, perfect information about the interests of the other parties involved. For this reason, most negotiation situations are characterized by each party's having *incomplete information*. People may exchange information about their interests, but they cannot verify with certainty the other person's preferences; in this sense, people negotiate in ignorance with respect to the other party's preferences. In a negotiation situation, people have the opportunity to *communicate*. Finally, a critical element of negotiation is the *outcome*. Negotiations may end in mutual agreement or impasse. Mutual agreements may be evaluated in terms of their joint profitability and in terms of parties' outcomes.

Key Principles

We briefly discuss key principles from behavioral negotiation theory (for more extensive treatments, see Neale and Bazerman, 1991; Thompson, 1996), relate them to disputes over environmental issues, and discuss what we view as the main obstacles for the successful application of behavioral negotiation principles.

The Bargaining Zone

Probably the most important question to address in any dispute is whether an agreement is feasible. That is, is it possible for parties to reach a settlement, and is it wise for each party to do so? The answer to this question is determined by the size of the bargaining zone, which represents the overlap between parties' reservation points. A *reservation point* is the point that represents the least acceptable terms a party would be willing to accept. When the bargaining zone is positive—each party's reservation point is potentially acceptable to all other parties—agreement is feasible. It is in both parties' interests to reach agreement, especially if there are costs involved in prolonging the negotiation. For example, consider a simple negotiation situation involving the management of a lumber company and union workers. The union has determined that the lowest hourly wage increase that is acceptable before it goes on strike is five cents; the management has determined that it would be willing to increase hourly wages by seven cents. In this case, the bargaining zone is positive: any wage settlement between five and seven cents is viable, and it is in both parties' interests to agree on a settlement.

Distributive Component

The bargaining zone only tells us whether it is possible for parties to agree. It does not tell us exactly what agreement will be reached. Obviously, it is in each party's interest to reach a settlement that is closer to the other party's reservation point and nearer to its own target point. A *target point* is what parties would like to have (not what they would be willing to live with). In most cases, it is not possible for negotiated settlements to satisfy both parties' target points, which may be unrealistically optimistic. This question of who gets how much of the resources to be divided is the *distributive* component.

A distributive component is present even in negotiation situations that contain exclusively *compatible* issues, because parties must allocate resources. Further, parties may or may not be aware of the presence of

compatible interests. For example, consider a house sale where, unbeknownst to the seller, the buyer would like the seller to leave the hardware materials in the basement. The seller, however, hires a company to clean out the entire basement. The hardware gets thrown away, resulting in less profit for the buyer.

Integrative Component

It is commonly known that every negotiation situation has a distributive component. It usually comes as a surprise that most negotiation situations also contain an *integrative* component, or how the resources available to the parties are expanded. It may seem odd to think of people creating resources in negotiation, but most negotiation situations are not purely fixed sum. Rather, through a variety of mechanisms, people can expand the total pie of resources to be created (see Pruitt and Carnevale, 1993). For example, consider a situation in which citizens want a local manufacturing company to minimize its waste products. The citizens are concerned with maintaining the purity of their waterways; the company is concerned with gaining community endorsement for its products. An integrative agreement is reached when the company minimizes waste and the local newspaper prints a series of full-page endorsements. This example illustrates the principle of nonspecific compensation.

The resource pie can be expanded in various ways (see Rubin, Pruitt, and Kim, 1994; Pruitt and Carnevale, 1993, for overviews). One way is by making *trade-offs* among issues (Raiffa, 1982). For example, consider a negotiation between a city and community residents concerning an airport expansion. The city desires the revenue increase that would come with expansion; the community residents are opposed because of the noise and added traffic. Because both parties feel entitled, on some level, to their own views, the dispute may seem intractable. An agreement may be possible, however, if the pie is expanded by adding other issues and providing opportunities for trade-offs. The city may have long-term growth needs, while the community has immediately pressing medical and education needs. A mutually beneficial trade-off may involve providing the citizens with a new hospital and school facilities in exchange for airport expansion that will take several years to plan and develop. Further, the city may respond to the concerns of the community by enhancing ground transportation to alleviate the projected traffic and placing restrictions on flight patterns to minimize noise.

There are many other ways to construct and enact integrative agreements. Differences more than similarities between people pave the way toward integrative agreement. Because parties to disputes are not identical

in their tastes, forecasts, and endowments, they may have something to offer that is relatively less valuable to them than to those with whom they negotiate. Lax and Sebenius (1986) note five dimensions of difference that negotiators may exploit to capitalize on integrative agreement: differences in valuation for the negotiation issues, differences in expectations for uncertain events, differences in risk attitudes, differences in time preferences, and differences in capabilities. The relative resource gains produced by leveraging resources can vary widely.

Usually, though not always, people must have information about each other's preferences for integrative solutions to be developed. Probably the most serious hindrances to the development of mutually beneficial trade-offs are faulty perceptions people hold about the interests of others. Most negotiators who have not received special training or expertise have a *fixed-pie perception* (Bazerman and Neale, 1983; Thompson and Hastie, 1990b). That is, they perceive the other party's interests to be completely opposed to their own. This faulty perception is present at the outset of most negotiation situations (Thompson and Hastie, 1990b) and is remarkably persistent, even in the face of disconfirming information (Thompson and DeHarpport, 1994). The fixed-pie perception is at the root of a particularly unfortunate negotiated outcome: the lose-lose agreement (Thompson and Hrebec, 1996). The lose-lose agreement occurs when people mutually agree to an outcome that is worse for both of them than some other readily available outcome. Lose-lose outcomes characterize those negotiation situations in which parties fail to realize that they have compatible interests—such as the case with the home buyer and seller. Although in a sense all pareto-inefficient outcomes (those in which there does not exist another outcome that would improve at least one party's utility without reducing the other's utility) could be considered lose-lose agreements, we use lose-lose to refer to pareto-inefficient agreements where compatible issues exist, so that superior outcomes are readily available (Thompson and Hrebec, 1996). The lose-lose outcome occurs in over 20 percent of conflict situations, and over 50 percent of negotiators who do not fall prey to lose-lose outcomes nevertheless erroneously believe that their interests are opposed when they are not. Further, the lose-lose effect is not limited to laboratory investigations; Balke, Hammond, and Meyer's analysis (1973) of a labor strike at a chemical company revealed faulty perceptions about preferred wage increases. Failure to realize that parties have compatible *interests* is different than the failure to realize that parties have different *priorities*, which may be mutually traded off. In most cases, people are not aware that they have unnecessarily wasted resources. Inefficient agreements such as this are

costly not only for the parties involved but also for the larger community (Rubin, Pruitt, and Kim, 1994) that pays the price of increased waste, underutilization of human capital, and a mounting federal deficit.

Integrative agreements offer a number of important advantages for parties to environmental conflicts. First, via integrative agreements people can get more of what they want and therefore may be more satisfied with the outcome. Second, the creation of resources makes it more likely that parties' interests can be effectively resolved and an impasse avoided (especially if the created resources are easy to distribute). For instance, if two parties are negotiating over how to distribute resource A, an integrative agreement might solve the impasse by redefining the situation so that each party feels as though it is gaining what it seeks and not giving up what it desires. Finally, integrative agreements serve the interests of the community by minimizing the likelihood that one or more parties will renege, requiring renegotiation, and by making more efficient use of scarce resources.

We believe that as in other conflicts, integrative agreements are possible in virtually all environmental disputes. In saying this, we do not mean to imply that all parties can attain outcomes that satisfy their target points but rather that some agreements create more added value than others. (See Hoffman and Ehrenfeld, 1995; Porter, 1985, for different perspectives about the feasibility of integrative agreements.)

In the environmental domain, the question of integrative agreements has become one of whether *win-win* agreements are possible. The answer to this question, of course, depends upon how win-win is defined. We define win-win agreements as those that capitalize on parties' interests so as to increase added value. Win-win agreements are usually misconstrued in two serious ways. First, they are construed to mean that both parties to a negotiation achieve their target points. When viewed in this way, win-win agreements are not possible (if they were possible, then there would not be a negotiation problem). In most cases, however, parties may reach agreements that are much better than their reservation points if they focus on the potential for integrative agreement. Further, we believe that some settlements are better for all the parties involved than are others.

Win-win agreements have also been interpreted to mean that people are *happy* with the outcomes they obtain in negotiation. But using subjective perceptions like happiness and satisfaction as an index of the efficiency of negotiated outcomes is problematic for several reasons. First, people's subjective perceptions and evaluations are highly context dependent. The same objective outcome may be viewed quite differently, as a function of arbitrary aspects of the context. For example, people report greater life

satisfaction on days when the weather is sunny than when the weather is cloudy (Schwarz and Clore, 1988). Second, subjective perceptions are influenced by social comparison information. That is, people feel more successful about negotiated interactions when they perceive the other party to be disappointed with the outcome than when the other party seems pleased (Thompson, Valley, and Kramer, 1996). Finally, people often confuse what they regard as "fair" outcomes with integrative outcomes. That is, people feel that if the allocation of resources is equal or equitable, the agreement is good. Compromise, or the even division of resources, is often viewed as a fair procedure for allocating resources. However, "fair" settlements may be inefficient. The equal division of resources in no way guarantees that resources have not been unnecessarily wasted. Furthermore, compromise agreements work against the development of mutually beneficial trade-offs. Another problem is that there is no universal or absolute index of fairness. In a dispute, there are likely to be as many fair solutions as there are parties to the negotiation (Messick, 1992; Bazerman, 1993).

We believe neither of these definitions of win-win is useful. Rather, we regard a win-win outcome to be one that is efficient—meaning that there is no other outcome parties could reach that at least one party would prefer without reducing the other party's utility.

A Framework for the Analysis of Disputes

It is useful to distinguish conflicts of interest from conflicts that arise from different conceptualizations of the situation. Game theory (von Neumann and Morgenstern, 1947; Gibbons, 1992) and cognitive negotiation theory (Neale and Bazerman, 1991; Thompson, 1990, 1996) have been used to analyze how well various compromise strategies work in reaching satisfactory solutions to conflicts of interest. However, many conflicts arise not because of competing interests but because parties do not share the same conceptualization of the situation. This may occur because of divergent ideologies, values, or cognitive structures. The mode of resolution for such conflicts is not joint compromise, concessions, or the integrative bargaining model we have discussed. Resolution requires an altered understanding of the situation by one or both people. Unlike conflicts of interest, conflicts over values and ideology may not have a "best" or optimal solution but instead may be assessed in terms of the accuracy of people's perceptions of the other side (Hammond, Stewart, Brehmer, and Steinmann, 1975) and the preservation of values.

The social psychological and organizational literature on conflict has been divided into two streams that have developed independently. One focuses on conflicts of interest, also known as scarce resource competition; the other focuses on conflicts of ideology, understanding, and value. (Values differ from beliefs, but they have not been treated separately in the literature.) To our knowledge, Rapoport (1960) was the first to distinguish conflicts of interest, or what he called *games* (encounters designed for playing out conflicts of interest), from conflicts of ideology, or *debates* (encounters designed for the discussion of ideological differences). According to Rapoport, the objective of games is to outwit one's opponent, whereas the objective of debates is to convince one's opponent. (Rapoport also discussed fights, in which the goal is to harm the opponent.) Aubert (1963), Hammond (1965), Marwell (1966), Kelley and Thibaut (1969), and Glenn, Johnson, Kimmel, and Wedge (1970) made similar distinctions between scarce resource competition and value conflict.

Using the distinction between scarce resource conflict and ideological conflict, we pose a general framework for the analysis of disputes. Figure 5.1 presents a four-cell structure for analyzing the nature of conflict. For any given conflict, people's interests concerning scarce (tangible) resources may be at stake, or their beliefs about the nature of the world may be in conflict, or both. Of course, it could be argued that all conflicts of ideology involve implications for resources and that scarce resource conflict has its roots in ideological differences, but our concern is the *focal* issues in conflict and how they are *subjectively perceived* by individuals. Cell A is the *no conflict* case: parties agree both on ideology and the distribution of resources. Cell B is the *scarce resource conflict* case: people share an understanding of the situation but disagree on the allocation of resources. This cell is the one most often studied by game theorists, behavioral decision theorists, and negotiation theorists. Cell C is the *ideological conflict* case: people disagree (at least immediately) concerning their ideologies or the facts of the situation but do not have to apportion scarce resources. Cell D is the *complex conflict* case: people are in disagreement concerning their ideologies, and scarce resources are at stake. We suspect that most conflicts concerning environmental issues are of the complex type in cell D.

The central thesis of our chapter is that environmental conflicts, such as the one over the Arctic natural preserve, involve both conflict over scarce resources and clashes of ideology. Resources and fundamental values are at stake. This may occur in two ways. In some instances, parties may have values in conflict and simultaneously compete for perceived scarce resources. In other cases, one party may perceive the conflict in terms of

Figure 5.1. Analyzing the Nature of Conflict.

		Conflict of interest (scarce resources)	
		No	Yes
Conflict of values (ideology)	No	Cell A: No Conflict Parties in agreement on issues and ideology	Cell B: Scarce Resource Conflict Parties in disagreement about apportionment of resources but agree Ideologically about the nature of the dispute
	Yes	Cell C: Ideological Conflict Parties in disagreement about nature of world, correct view, what should or ought to be; no disagreement concerning apportionment of resources	Cell D: Complex Conflict Parties in disagreement about resources and about ideology

values; the other may regard the situation in terms of resources. We suspect that this occurs in environmental disputes when developers base their position on interests and environmentalists base their position on values. The game theory and the behavioral negotiation models can only take us so far in understanding how these complex conflicts may be effectively resolved.

Keeney (1992) has addressed the issue of how values should affect decision making. Keeney encourages making decisions and resolving disputes through the explicit discussion of values. His model, however, cannot paint a complete portrait of the negotiation processes because it fails to take into account the interdependent processes occurring in a negotiation. It is our goal in this chapter to identify social psychological processes that prevent efficient dispute resolution. We also use the social psychological framework to suggest ways to resolve disputes that include conflict over fundamental beliefs and values, like those found in environmental disputes.

Obstacles in the Effective Resolution of Conflict

We propose that environmental conflicts involve both competition for scarce resources and clashes of ideology. The behavioral negotiation framework previously described provides insight into how integrative solutions might permit trade-offs in environmental disputes, but it avoids the issue of how values and ideology (which are present in environmental disputes) influence conflict. What problems might the parties involved, or

third parties, encounter as they attempt to fashion trade-offs among issues in environmental disputes? In this section, we highlight what we regard to be some of the key social psychological obstacles to the development of mutually beneficial, integrative agreements in environmental disputes. Our analysis is primarily speculative and awaits empirical validation. The problems we cite all have the common denominator of conflict over values and ideology. We do not mean to imply that these obstacles are exclusive to environmental conflicts. Rather, we view these as major impediments to the successful resolution of environmental disputes as well as other kinds of conflicts that involve values. We also note that the following obstacles might interact in the sense that factors that produce one obstacle may also lead to other obstacles as well; hence the entries in this list of obstacles are not independent.

Sacred Values and Taboo Trade-Offs

The trade-off principle is ideal for dealing with scarce resources conflicts containing issues that are independent and fungible, that is, available for trade-offs. The behavioral negotiation framework assumes that people are able and willing to place value on resources to compare them or are at least able to make apple and orange comparisons among resources and trade them in a way that maximizes their outcomes. But the notion of trading becomes unconscionable in some conflict situations (Tetlock, Peterson, and Lerner, 1996). That is, in some conflicts people are reluctant and often refuse to place a monetary value on a good or even think of trading it. Tetlock, Peterson, and Lerner call such issues *sacred issues* and distinguish them from their fungible cousin so common in the negotiation paradigm, *secular issues*. Sacred issues are those that the decision maker deems unavailable for compromise, trade, or even questioning. Although a behavioral decision theorist might account for sacred values by attaching a very high monetary value, this does not address psychological aversion to trade. In a dispute concerning the construction of a dam in Arizona that would remove native Indians from their ancestral land, a Yavapai teenager said, "The land is our mother. You don't sell your mother" (Espeland, 1994).

Sacred issues are puzzling to the behavioral negotiation theorist who assumes that acts can be ordered and that all resources may be placed on a single utility metric and then traded accordingly. According to Tetlock, Peterson, and Lerner (1996), sacred issues lead to "taboo trade-offs," wherein people are reluctant or refuse to trade. They note that attaching a monetary value to a bottle of wine, a house, or the services of a gardener

can be a cognitively demanding task but raises no questions about the morality of the individual. In contrast, attaching monetary value to human life, familial obligations, national honor, and the ecosystem seriously undermines one's social identity or standing in the eyes of others (Schlenker, 1980). For the environmentalist, proposals to exchange sacred values (such as environmental resources) for secular ones (for example, money, time, or convenience) constitute taboo trade-offs. To the list of sacred values, we add the porcupine caribou, the wildflowers, and the bird species that inhabit the Alaskan refuge. What makes these sacred is not the tangible resource they represent but the symbolic meaning attached to them—they represent a way of life that is threatened.

Given the inherently sacred values that operate in environmental disputes, the familiar notion of trading, so important to the theory of behavioral negotiation, is likely to be considered unacceptable and reprehensible to the environmentalist. But we believe that sacred and secular issues are contextually defined. That is, the social perceiver, by virtue of key features of social context, attributes sacred status to certain issues (Tetlock, Peterson, and Lerner, 1996). For example, the presence of referent groups that derive their self-identity through their association with certain values and the similarity of the dispute to other disputes that involve sacred issues may lead people to view an issue as sacred. Sociocultural norms also affect sacredness of certain positions, such as smoking, which is now generally considered baneful. The sanctity of issues is also influenced by the labels and names used to define conflicts. For example, in 1994, all three members of Alaska's congressional delegation began referring to the part of the Arctic National Wildlife Refuge that would be subject to oil exploration as the "Arctic Oil Reserve." The group believes this term is more accurate because that part of the refuge is not officially classified as either wilderness or refuge. Environmentalists object to this term and even to the use of the acronym ANWAR (Arctic Natural Wildlife Refuge) because they worry that unless the words *wildlife refuge* are clearly stated the public will not understand the value of the land.

We use the term *sacred* to describe people's preferences on issues on which they view themselves as uncompromising. It immediately becomes obvious, however, that sacred issues may be a profitable strategy. That is, it is to one's advantage in a negotiation situation to be viewed as uncompromising (perhaps even fanatical). By anointing certain issues as sacred, and removing them from bargaining consideration, a negotiator may increase the likelihood of an individually favorable settlement. The strategy is similar to the irrevocable commitment strategy (Schelling, 1960).

We refer to issues that are not really sacred but positioned as such as *pseudo-sacred* (we are indebted to Max Bazerman for this term). There are two variants of pseudo-sacredness that hinge upon the deliberateness of one's strategy. The first variant is that some people may believe their values prohibit any discussion of trade, but presented in the appropriate context a proposal that traded a sacred issue might be considered and chosen. The second variant involves deliberate misrepresentation. We believe that the greatest impediments to resolving environmental disputes stem from the first variant. Perhaps people view themselves as having greater purity of conviction than is actually the case. Thus, for example, if the Yavapai Indians would trade one acre of land for a hospital, a new school, or money, then the land is not truly sacred but pseudo-sacred.

At this point, it could be argued that truly sacred values cannot exist because everyone has his price. That is, with sufficient compensation, people are willing to trade off a sacred value. We think the critical distinction to be drawn is not the amount that one must be compensated but the social-cognitive factors that operate to affect parties' views of sacredness.

Affiliation Bias and Reactive Devaluation

The affiliation bias refers to the tendency of people to evaluate a person's actions based on the person's alleged party affiliation rather than on the merits of the behavior itself. Consider, for example, a hypothetical case: both a chemical company and an environmental advocacy group leave a park area picnic without disposing of their waste products. Which group is judged most harshly? The affiliation bias would suggest that the chemical company group would be judged more harshly than the environmental group—even when their actions are identical.

The common belief is that actions speak louder than words. The implication is that all of us use people's behaviors as an insight into their real attitudes (for example, Jones and Davis, 1965). Certainly, most of us would like to believe that we evaluate a person's behaviors at face value and make judgments about the person's underlying values on the basis of an objective analysis of his or her behavior. Although actions may speak louder than words, a person's party affiliation may speak loudest of all, setting up a directional tendency for observers to make inferences about underlying ideology.

A classic example is the one provided by Hastorf and Cantril (1954) of the differing perceptions of the infractions by different team members in a football game. The perceived aggressiveness of the infractions was entirely predictable by students' team affiliations. Another example is Oskamp's

examination (1965) of people's perceptions of a number of international diplomacy behaviors. Half of the respondents evaluated actions that were attributed to the United States; the other half evaluated the identical action, this time purportedly taken by the Soviet Union. (That is, one respondent would read, "The U.S. has established rocket bases close to the borders of Russia," and the other would read, "Russia has established rocket bases close to the borders of the U.S.>"). People's perceptions of the action differed dramatically as a function of the perceived agent of the action, the United States or Russia, but not of the actual action. This suggests that people perceive the same objective behavior as either sinister or benign merely as a consequence of the agent's affiliation.

In a similar vein, Ross and Stilling (1991) describe the *reactive devaluation* effect as the tendency for people on opposite sides in a conflict to devalue the proposals offered by the other side as a mere consequence of their having been offered; when the same proposal is offered by one's own side or a neutral party, the acceptability of the proposal increases dramatically. The side on which one sits at the negotiation table defines one's affiliation with or against a proposal.

Reactive devaluation can be an obstacle to negotiation. If an environmentalist is willing to concede five hundred acres of forest to a logging interest, we predict that the logging interest will devalue the concession. What is wrong with those trees? Why are "they" willing to give up these trees? Thus a good faith effort on the part of the environmentalist to demonstrate a willingness to negotiate could backfire because it is devalued by the other side.

Punctuation of Conflict and Causal Chunking

A basic tenet of social psychology is that social interaction can be understood as a fairly continuous stream of causes and effects, with each person's actions influencing the subsequent actions of his or her interaction partners (for example, Jones and Gerard, 1967). Indeed, to an outside observer, a series of communications is viewed as an uninterrupted sequence of interchanges. People who are actively engaged in social interaction, especially conflict situations, do not always see things this way, however. Instead, they organize their interactions into a series of discrete causal chunks. Whorf (1956) terms this process the "punctuation of the sequence of events."

According to Swann, Pelham, and Roberts (1987), people simplify their perceptions of their interactions by organizing them into discrete causal chunks. These chunks influence the extent to which people are aware of their influence on others as well as their impressions of others. Swann,

Pelham, and Roberts distinguish between two kinds of chunking patterns: self-causal and other-causal. People form self-causal chunks (for example, my action causes my partner's action) when they are on the offensive and other-causal chunks when they are on the defensive.

Similarly, Kahn and Kramer (1990) describe the biased "punctuation of conflict" as a tendency for people involved in conflict to interpret interactions with their adversaries in self-serving and other-derogating terms. Thus an actor, A, perceives the history of conflict with another actor, B, as a sequence of B-A, B-A, B-A, in which the initial hostile or aggressive move was made by B, causing A to engage in defensive and legitimate retaliatory actions. Actor B punctuates the same history of interaction as A-B, A-B, A-B, however, reversing the roles of aggressor and defender.

Disagreement about how to punctuate a sequence of events and a conflict relationship is at the root of many environmental disputes. When each side to the dispute is queried, people on each side explain their frustrations and actions as defenses against the acts of the other party. As a result, conflict can escalate unnecessarily but cannot be readily defused.

Perceived Efficacy of Coercion and Conciliation in Conflicts

The successful resolution of environmental conflicts depends on accurately predicting the effectiveness of our social influence strategies. That is, to modify another person's actions, it is important to distinguish between the actions that would facilitate such a change and the ones that would inhibit change in the desired direction.

Rothbart and Hallmark (1988) analyzed the nightly broadcasts from London by the American journalist Edward R. Murrow, who reported on the psychological and physical consequences of the Nazi bombing of British cities (Murrow, 1941). Contrary to Nazi intent, the bombing did not move the British toward surrender. It had quite the opposite effect, strengthening rather than diminishing their resolve to resist German domination. Shortly after the United States entered World War II, the Americans joined the British in launching costly bombing raids over Germany. In part, the intent was to decrease the German people's will to resist. Later research reported by the Office of Strategic Services compared lightly and heavily bombed areas and found only minimal differences in civilians' will to resist. Similarly, in environmental disputes the erroneous perception that the opposition will weaken in the face of heavy attack often encourages aggressive rather than constructive action.

In addition to that World War II example, Rothbart and Hallmark cite others, including Pearl Harbor, South Africa, and North Vietnam. Each instance reveals large differences in countries' perceptions of what will be

effective in motivating an enemy and what will be effective in motivating themselves or their allies. The general principle appears to be that coercion is viewed as more effective with our enemies than with ourselves, whereas conciliation is viewed as more effective with ourselves than with our enemies.

Rothbart and Hallmark cite three explanations why this principle might be true. First, the multiple goals interpretation suggests that a preference for punitive strategies with one's enemies may reflect a desire to inflict injury or pain as well as a desire to influence behavior in a desired direction. The relative preference for punishment is based on an incompatible desire to both injure and modify the behavior of the enemy. The symbolic value explanation suggests that people are inclined to use more coercive strategies with an opponent because the appearance of toughness conveys information about our own motives and intentions, which in the long run may bring about the desired result. A third approach, social categorization, suggests that the mere creation of mutually exclusive, exhaustive social categories leads to different assumptions about category members, with more favorable attributes assigned to in-group than to out-group members (Brewer, 1979; Tajfel, 1970). We suspect that social categorization processes are particularly powerful in environmental disputes because of the well-defined camps.

With this literature in mind, one cannot help but wonder whether some of the tactics used in environmental disputes may raise the hurdle that needs to be overcome for a successful negotiation. Tactics such as chaining oneself to a fishing boat or placing metal spikes in trees to damage logging equipment might strengthen the resolve of the other side.

Exaggeration and Polarization of Others' Views

In many instances, people exaggerate the difference between their own and others' belief systems in a way that promotes conflict. Ross and Ward's principle of naive realism describes a psychological process that leads to the exaggeration of differences. According to Ross and Ward (1994), people believe that their own views are unbiased and assume that others are reasonable people like themselves. When confronted with what appears to be a difference in views and opinions concerning a sociopolitical matter, people initially assume that the other side lacks the information that led them to their own reasoned and objective viewpoint. If one supplies the other side with information that seems abundantly clear but the other party still does not come around, the perceiver regards the opponent to be an irrational, ideological extremist.

Robinson, Keltner, Ward, and Ross (1994) examined people's perceptions of the other side in a variety of sociopolitical issues, such as racial incidents and school curriculum reform. The pattern of results was striking. People exaggerated the viewpoints held by the other party in a way that made differences in ideology appear larger than they really were. People tended to perceive the other side's views as more uniform and their own views as more varied and heterogeneous. Thus ideological conflict is often exacerbated unnecessarily as a partisan construes the other person's values to be more extremist and unbending than they really are. We expect this tendency to be further exacerbated to the extent that perceivers homogenize all members of the other party—that is, perceive minimal variability in views held by the other side (Linville, Fischer, and Salovey, 1989).

Sinister and Fanatical Attribution Errors

Ross (1977) described the fundamental attribution error as the tendency for social perceivers to explain the causes of the behavior of others in terms of their underlying dispositions and to discount the role of situational factors. We think that the fundamental attribution error operates in environmental conflicts as well. But Ross did not specify what kind of dispositional attribution people would make. Jones and Davis (1965) suggested that people will make correspondent inferences; attitudes are seen as corresponding to the overt behavior. We believe that the attributions people make in environmental disputes take a particular form that is not symmetric. Many environmental disputes involve a group that is believed to be interested in the economic *development* of the environment and an opposing group that represents the interests of the *ecosystem*. We believe that when each group is asked what they believe to be the cause of the dispute, each will attribute the negative aspects of conflict to the dispositions of the other party.

Our analysis of sinister and fanatical attributions complements Fiske's account (1993) of attributional behavior in power relationships. Fiske argues that people in low-power positions are dependent on the behaviors of more powerful others and will spend more time considering the behavior of powerful others than vice versa. People in low power positions often attribute sinister intentions to the actions of others. Kramer (1995) describes the sinister attribution error as the tendency for people in less powerful positions to ascribe malicious intent to the behavior of others. Applying the work of Fiske and Kramer to the content of environmental disputes, we predict that the environmental group will tend to attribute

evil and sinister motives to the development group, whereas the development group will tend to regard the environmentalists as fanatic lunatics. This perception was comically noted by a Republican congressman George Gekas of Pennsylvania, who was accused by the opposing partisan party of anti-environmental attitudes. The angered Gekas mocked the accusation, "Mr. Speaker and members of the House, I hate clean air. I don't want to breathe clean air. I want the dirtiest air possible for me and my household and my constituents. That's what the supporters of this motion want people to believe about our position on these riders. Now, you know that's absolutely untenable" (*Morning Edition*, 1995).

Heartfelt Versus Calculated Interests

Understanding the relationship between a person's values and interests is also important for overcoming obstacles to conflict resolution. We pose two simple models for understanding the psychological interplay between values and interests: value-driven interests and interest-driven values. The most common way to view this relationship is the *value-driven interests* model, wherein a person's interests reflect his or her underlying values. In the *interest-driven value* framework, a person's interests drive or dictate his or her values. The difference between these two models is based, in short, on whether one's values are *heartfelt* or *calculated*. The distinction rests on whether one's interests are driven by social and moral values that are independent of self-interest, or whether self-interest shapes one's values. We believe that either model can hinder the effective resolution of conflict. We further believe that many people view their interests to be an expression of their values, unless economic interest is a cornerstone value. We will make the point later that people tend to view their adversaries' values as calculated.

Most people view their values as dictating and shaping their interests but view others as expressing values that serve their self-interest. Thus we may view the values held by our opponents as being slaves to their unbridled greed and self-interest but regard our own interests as an expression of our underlying values. Consequently, we tend to believe that others' values are more capricious than our own. In a sense, people believe that at the right price others can be bought or persuaded, but that they are committed to their own value system. We suspect that environmentalists' and developers' views of one another are not symmetric. That is, environmentalists may very well accuse developers of harboring evil, calculated inter-

ests, and developers may view environmentalists as naive and idealistic. Why do people tend to see their own interests as heartfelt and others' as calculated? There are several reasons.

It is difficult for people to grant that there may, in fact, be more than one valid view of the world. That is, although people allow others to have different preferences and tastes, there is only one set of "right" or correct views. The presence of more than one value system is psychologically disturbing for the person who wants to believe that there is a single, objective reality. A second reason why people regard their own views as heartfelt is that they view themselves as guided by conscience and feeling, rather than cold cognition. The primacy of affect over cognition has been supported in research (for example, Zajonc, 1980). Self-presentation concerns may also lead us to justify our interests as arising from values. Indeed it is generally socially inappropriate to make arguments on the basis of self-interest.

Outsmarting Versus Convincing

When we negotiate over tangible resources and we manage to make a gain (say, in our salary or the price of a house), we often feel that we have been successful in *outsmarting* the other person. When we manage to get a fence sitter to see our point of view on a controversial subject, we often feel that we have been successful in *convincing* the other person. In which case do we feel more satisfied? With some exceptions, the most satisfaction comes from our use of rational, persuasive argument rather than clever tricks (Rapoport, 1960). This belief is not without empirical support. French and Raven's analysis (1959) of bases of power indicates that more compliance occurs when power is legitimate or expert rather than coercive. Convincing someone about the correctness of our own views seems to confirm not only those views but also ourselves as rational, thoughtful people. Convincing others also confirms the naive realism view that if people on the other side had the "proper" information they could come to view the situation in the same way (Ross and Ward, 1994). Furthermore, rational argument serves a person's own interests: changing someone's underlying views has a more lasting impact than if one person just gets another person to give in to him or her on a single occasion. For these reasons, we suspect that in most environmental disputes, which tend to involve sacred values, people desire to convince, rather than outsmart, others. In highly emotionally charged disputes, people want others (especially their opponents) to appreciate their point of view.

The problem is that most people are not terribly persuasive spokespersons for their own ideology. One reason is that people mostly interact with others who have similar viewpoints, and thus receive confirmation of their own views without focusing on the other side's arguments. A second reason is that people tend to confuse ideology with rational argument.

Tetlock, Peterson, and Lerner (1996) note that when people are pressed to justify their political preferences, all inquiry ultimately terminates in the expression of values that people find ridiculous to justify any further. We suspect that the same is true for environmental issues: in the Arctic oil-drilling controversy, environmentalists consider protection of the environment a self-evident need just as pro-drilling Republicans consider economic development a self-justifying explanation. When questioned about why they hold a given view, people tend to restate their view rather than provide reasons for holding it. According to Rokeach (1973), values represent core beliefs. Conversely, we view our own beliefs as persuasive because they reinforce our basic values. The problem is that when others present us with their ideology, we view it as unmitigated propaganda, and we often accuse the other side of talking around the issues and not dealing with the conflict squarely.

Elster (1995) distinguished between two strategic uses of argument. These two correspond to the general distinction we draw between conflict of interest and conflict of understanding. Elster argued that people can induce agreement either by *bargaining* or through *rational* argument. When people bargain, they make threats and promises with a claim to credibility; when people argue, they make assertions with a claim to validity. Elster posed the question, Why argue at all? That is, why don't people simply bargain through the use of threats and demands? Elster ultimately concluded that argument serves at least five useful purposes and that all serve to maximize self-interest. First, if others believe that a person is truly arguing from principle, they may be more willing to back down because they regard the other as willing to suffer a loss rather than accept a compromise (Frank, 1988). Second, the use of ideology and principle is often a subterfuge, used for political purpose to hide what is in reality a deal among special interests. The third purpose is for persuasion and is related to the concept of informational influence (Deutsch and Gerard, 1955). Fourth, social norms often prescribe that people should take positions that are beneficial to the collective. Discussions of values and principles provide an acceptable text for dialogue when the social context does not tolerate the discussion of interests. Finally, parties to a dispute might use arguments out of fairness to avoid humiliating an opponent. That is, if the stronger party articulates an impartial reason that allows the weaker party to save face, both gain.

Prescriptive Implications

Having focused on the factors that make environmental disputes resistant to the principles of negotiation, we can ask what steps may be taken to create positive movement in environmental disputes.

As a first step, the environmental scholar needs to realize that environmental disputes involve values as well as interests. The implication is that both values and interests must be considered when studying the problem of resolving environmental disputes. A second step is to examine ways of creatively allocating resources in a manner that satisfies parties' values using the integrative bargaining principles already described. It is unrealistic, however, to assume that solutions can always be crafted that satisfy parties' underlying issues. Assuming that these basic approaches have not been successful in moving the resolution of the dispute forward, what may be done? Following are several strategies we suggest could facilitate effective dispute resolution. Our ideas are primarily speculative and await empirical examination.

Using Resources to Change Values

Depending upon one's view of it, the approach of using resources to change values is a form of bribery or seduction. In short, opponents are offered a taste or allowed to experience the positive aspects of the change they are reluctant to negotiate, in the hope that they will be reluctant to give up a resource they have enjoyed. The idea is connected to the endowment effect (Thaler, 1980), in which people are more reluctant to part with something once it is in their possession. This was the case of the Inupiat Indians in Alaska, who were initially opposed to the drilling but have come to enjoy the amenities of modern life made possible by oil exploration in their community. People are motivated to bring their beliefs in line with their behavior. This strategy of allowing the other side to experience a resource may help alleviate the sacred value obstacle because it facilitates viewing the value as something that can be traded.

Psychological theories of cognitive dissonance (Festinger, 1957) and self-perception (Bem, 1967) state that people bring their beliefs in line with their behavior. Thus the endowment effect might reflect several psychological processes in addition to the notion of loss aversion that is usually thought to drive the endowment effect. This strategy could backfire, however. The key obstacles to overcome when implementing this strategy are issues of face saving (Brown, 1968) and the maintenance of self-identity. That is, people do not want to look like they can be bought or

have sold out (see the section "Perceived Efficacy of Coercion and Conciliation" earlier in this chapter).

Learning the Necessity of Trade-Offs

No one can live without making choices among sacred issues. For everything that a person chooses, something is not chosen. Even in the case of the Gwich'in Indians, achieving their goal of continuing to hunt caribou in the pristine wilderness means that the longevity of tribe and children will be reduced (without the benefits of formalized medicine and education that development brings). Why is it so hard for people to realize the trade-offs they make? The answer may be that they do not cognitively code the choices they make in terms of sacrifices. They focus on the road taken instead of the road not taken. A potentially useful strategy for facilitating negotiation is to reframe the issue from a political, environmental, or social one to one of economics and cost-benefit analysis. The idea is to make it clear that trade-offs are inevitable—that people constantly make decisions that affect others' welfare. When people eat beef, they affect the food chain; when people use cloth diapers, they affect the water supply; when they use plastic, they affect landfills. It is impossible not to affect the welfare of others. People's views of their own choices and how they involve trade-offs is myopic; the best approach is to learn to be cognizant of the trade-offs people do make and how best to weigh the issues.

Another problem stands in the way of getting negotiators to focus on trade-offs. Even if we convince people that they do in fact make trade-offs in their role as *decision makers*, they may still be reluctant to make trade-offs as *negotiators*. Negotiation is often viewed as a strategic take-and-do-not-give-up enterprise rather than a creative give-and-take enterprise.

Creating a Sticky Slope

One reason that movement is blocked in environmental conflict is that people fear a slippery slope—that if they give in on one issue even a little bit they eventually lose all ground. Often the slippery slope concerns the perception of what events are likely to take place in the future. However, with so much uncertainty, future conditions are hard to reliably foresee. If a person or a party could receive assurance that a concession in one area would not start an avalanche of capitulation, it might be possible to develop more creative and mutually beneficial negotiated agreements. A sticky slope, the conceptual opposite of a slippery slope, means assuring the party who makes a concession that further ground is not also imper-

iled. The trick, of course, is creating meaningful sticking points. Raiffa (1982) suggests a number of methods for creating contingent contracts that provide insurance to parties reluctant to take risks. When parties have different perceptions about the state of the world, instead of arguing about what is or will likely be, they can bet on their differences. For example, consider a conflict involving developers' desire to build a bridge in a wetlands area and environmentalists' concerns that the construction will harm wildlife. The developers do not believe that the construction will have adverse effects. The parties may fashion a bet in which the animal population will be monitored following construction. If a critical number of animals have suffered adverse effects, then the developers will remove the bridge and, furthermore, donate money to special habitat preserves. If the animal population has not been endangered, however, additional development exploration is allowed. The essential feature of such a bet is that uncertainty about future conditions is used to leverage agreement. Most important, the people on each side of the dispute get an insurance policy that protects them from losing all ground should things go awry.

Changing the Sociopolitical Context

The social context often determines whether trade-offs are taboo or not. As we noted earlier, affiliation tendencies can block potentially beneficial trade-offs. Thus one way to facilitate negotiation is to remove accountability pressures. In general, when people anticipate that their decisions and actions will be scrutinized by others, they are more attuned to sociopolitical pressures. Although being attuned to sociopolitical issues and information is important, the resulting pressure may hinder decision-making quality. It may be possible to create teams of decision makers to diffuse responsibility or task forces to absorb blame. Thus one way of altering the sociopolitical context is to create scapegoats and mutual enemies.

Introducing a Common Goal

The introduction of a common goal does two things: it removes the perception that the other party's interests can be completely opposed, and it builds a new value representing a higher-order principle that both parties find acceptable and perhaps superior to their previously espoused values. This prescription guards against attributional obstacles such as exaggerating the other party's view, attributing sinister motives to the other side, and perceiving the other party as calculating.

In Sherif and others' classic studies at Robber's Cave (1961), two opposing factions were brought together by a common goal. In environmental disputes, the common goal may take the form of a new paradigm or ideology that encompasses developers' interests and environmentalists' goals: sustainable development. Hoffman and Ehrenfeld (1995) outline the components for the creation of a paradigm shift that would encompass two opposing value systems. In particular, they argue that eco-development, sustaincentrism, or more commonly, sustainable development as an ideology would be compatible with both frontier economics and deep ecology, two currently opposing ideologies. Although Hoffman and Ehrenfeld's proposed paradigm shift is not dependent on the introduction of an enemy, such shifts might be more palatable for parties with the creation of a party or position that threatens both parties.

Setting a Precedent of Agreement

An interesting phenomenon occurs when people are asked to solve brain-teasers or puzzles: effort and persistence are much greater when people believe a solution exists than when they doubt that it does. We argue that a precedent of agreement in a dispute context creates the very mechanisms necessary for agreement: persistence and creativity. The status quo can also provide an interesting norm. If solutions to disputes have always been reached in the past, this sets a precedent for solving the present negotiation. No one wants to be in the party that broke tradition. For example, we are aware of a psychology department that has a history of unanimous agreement on hiring decisions. The desire not to disturb the norm of unanimity is quite powerful at silencing any minority view.

Reframing Ideological Illusions

It is amusing to nonpartisan observers that partisans of both sides in presidential debates usually claim victory. Of course, it is a logical impossibility that both sides can win on an issue. Nevertheless, with enough rhetoric, bolstering, and selective perception, both sides can be quite confident that they won and can maintain their dual illusion. Likewise, mediators may facilitate trade-offs that maintain the illusion that values have been preserved. The key is to reframe values in terms of general principles, not as specific positions. This will provide sufficient ambiguity to allow parties to be flexible about the means of achieving their values, especially when accountability to a constituency is critical. This strategy attempts to eliminate the outsmarting versus convincing obstacle discussed earlier.

Conclusion

We are not the first to examine the relationship between scarce resource competition and ideological conflict. Notable predecessors include Walton and McKersie's attitudinal structuring model (1965), Raiffa's analysis (1982) of the Camp David negotiations, Fisher and Ury's admonition (1981) to separate people from the problem, Pruitt and Carnevale's treatment (1993) of the values that underlie interests, and Keeney's work (1992) on value-focused thinking. In each of these approaches, parties are encouraged to be flexible about their means to achieving an end. But most of the previous approaches circumvent the problem of engaging parties in dialogue. The assumption is that interests flow from people's underlying values, that values may be served by an array of several different outcomes, and that the best solution is to keep goals intact and find interests that coincide with both parties' goals. This is a nice idea for the negotiation of landlord and tenant disputes, car sales, and employment relations, but it is often unrealistic for environmental disputes. The negotiation literature, in a sense, conveniently sidesteps the problem of values by focusing on trade-offs of interests among parties who are already in agreement on the basic nature of the dispute.

We have suggested some of the complexities that arise in what we call complex conflicts and how the behavioral negotiation model cannot address these problems. We have suggested some ways of overcoming these problems and facilitating integrative agreements in environmental conflicts. Our ideas are admittedly speculative and require empirical examination, but we have reported relevant literature where possible.

Some could accuse us of arguing that people should be willing to negotiate anything and that people must place an economic price on core values. Certainly, it would seem that some things in life cannot have a price. We have argued that the refusal to consider trading certain things is part of a deeply rooted value system. But we have also argued, in line with Tetlock, Peterson, and Lerner (1996), that whether people are aware of it or not they do make choices that involve trade-offs. They may not realize that they can do this; nor do they usually frame the choices they make in terms of trade-offs. Instead, it appears that when values are involved, people fall into a lexicographic decision mode, which can affect negotiation. In the lexicographic decision mode, values drive the choice so that trade-off does not seem relevant—the individual picks the option that appears best on the important value without regard to other values and their trade-offs. Our list of prescriptive suggestions can be interpreted as procedures to move individuals away from a lexicographic decision strategy to a more compensatory strategy.

The central message in this chapter is that people's interests are influenced by beliefs and values and that values often serve as self-justifying systems for the pursuit of interests. By pulling down the value smoke screens that hide the choices and trade-offs that people make, we may pave the way toward more effective conflict resolution, even in such complex and heated debates as those involving environmental issues.

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