Desire to Bargain and Negotiation Success: Lessons About the Need to Negotiate from Six Hydropower Disputes

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ABSTRACT / We investigated the notion that successful negotiations require that all parties to the dispute must have a desire to bargain. This desire is most likely to be present when the dispute exhibits ripeness and each party believes a bargained solution is the most cost-effective way to resolve differences. Structured interviews of participants in six Federal Energy Regulatory Commission hydropower licensing consultations were conducted to determine the level of need to negotiate for each party. The findings indicate that a need to negotiate is a necessary, but not sufficient, condition for success. Several factors were associated with a need to negotiate: a weak BATNA (best alternative to a negotiated agreement); a salient issue; participants' sense of efficacy; a sense of inevitability; professional roles encouraging negotiation; and disputes about facts as opposed to disputes about values. Participants' need to negotiate fluctuated throughout the process and intensified when questions were ripe: i.e., critical issues were debated or the regulatory process required action.

The literature on conflict resolution is consistent in concluding that for negotiations to be successful, all parties must desire to bargain (Fisher and Ury 1981, Bacow and Wheeler 1984, Bingham 1986, Kriesberg and Thorson 1991). By a desire to bargain we mean that parties believe that they must go beyond formal participation and exhibit a need to negotiate. Some observers have referred to this as ripeness, arguing that before effective negotiation is possible, the conflict must be one in which each party believes a bargained solution is the most cost effective way to end a dispute (Zartman 1989). Schelling (1960, p. 87) expressed this as a "spiral of reciprocal expectations" in which each party believes the others are ready to bargain; it is in their own best interests to bargain and the other parties know it. Cox and others (1985) summarized the notion of ripeness by observing that for conflict resolution to be successful, conditions must be so favorably constituted that the parties are willing to work together.

The notion that ripeness is associated with successful negotiations arises from two considerations. The first respects timing; fruitful negotiation is thought to be especially likely during certain phases of conflict. Kriesberg (1991) and Pruitt and Rubin (1986) have argued that conflicts proceed in cycles and that effective bargaining is possible only in some stages of those cycles. The factor that affects timing is the swing in tension, so that at some equilibrium point tension has been sufficiently intense to sensitize the parties to the need to bargain and is sufficiently relaxed to allow the creation of solutions (Hopmann 1991). Zartman and Aurik (1991) expressed this as the point when the parties believe others will respond positively to a deescalation of conflict and that this offers a "way out of the conflict" (Smith 1994). The second respects power; fruitful negotiation is thought to be most possible when the parties have failed in attempts to coerce their opponents (Zartman 1989). Somehow the parties have to arrive at or be brought to the point that they believe a negotiated agreement is desirable (Susskind and Babbitt 1992). Zartman and Aurik (1991) argued that the major means to achieve that end is what they call the "hurting stalemate." Waelchli and Shah (1994) demonstrated that the belief in the usefulness of a hurting stalemate to create ripeness was evident at least as early as ancient Greece. Such a stalemate is manifested in a shared need to negotiate because all the parties are able to creatively focus on bargaining, believe creative bargaining will be reciprocated, cannot take effective

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unilateral action, and find the lack of resolution expensive (Zartman 1989).

We tested the hypothesis that all parties must feel a need to negotiate in order for negotiations to be successful by examining the licensing of six hydroelectric power projects. In these negotiations, project operators and agencies charged with protecting natural resources are required to consult on conditions to be placed in a license application. The application is submitted to the Federal Energy Regulatory Commission (FERC) for a decision (i.e., grant, deny, grant with modifications). Preparing the application requires agencies and applicants to negotiate within the confines of a process loosely structured by statute and regulation. Although FERC is empowered to make a final decision on any license, the consultation process is designed to maximize negotiations between agencies and applicants so that the FERC decision can be based on sound scientific studies and reflect agreement among a variety of interests.

Hydropower and the FERC Licensing Process

The process of licensing FERC hydropower projects is defined by the Federal Power Act of 1920 and subsequent amendments (16 U.S.C. 791–828c). Under the act, the FERC is authorized to issue licenses for nonfederal hydroelectric power projects. The maximum license term is 50 years, although FERC may issue licenses of shorter duration. An important part of the licensing process is consultation between the project applicant and state and federal agencies, interest groups, and other affected parties (Kerwin 1990; Bearzi 1991). The purpose of the consultation is to resolve issues of project operations and resource protection.

Although coordination with state and federal fish and wildlife agencies has been part of the hydropower licensing process for the last 60 years because of requirements of the Fish And Wildlife Coordination Act of 1934 (16 U.S.C. 661–667e), the framework of the process has changed over time. Because of an increasing emphasis on resource protection, as evidenced by the passage of significant environmental protection legislation in the late 1960s and 1970s, the politics and philosophy of energy production shifted. In the case of hydropower, these shifts were solidified with passage of the Electrical Consumers Protection Act of 1986 (ECPA; Pub. L. No. 44-495, 100 Stat. 1243), an amendment to the Federal Power Act. Section 4(e) of ECPA requires FERC to: "give equal consideration to the purpose of energy conservation, the protection, mitigation of, damage to, and enhancement of fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality."

ECPA also includes Section 10(j), requiring licensing conditions on hydropower licenses to protect, mitigate damage to, or enhance fish and wildlife, based on recommendations from the National Marine Fisheries Service, the US Fish and Wildlife Service, and state fish and wildlife agencies. If FERC finds the recommendations to be inconsistent with the purposes of the FPA, the issues must be resolved, giving "due weight" to resource agency expertise.

During license consultation, resource agencies and project operators attempt to come to agreement about acceptable project operations. Because adequate streamflows are essential for both power production and resource protection, the consultations almost always focus on water quantity and on the timing, duration, and magnitude of releases from hydropower facilities (Bearzi and Wilkerson 1990). These are common issues in FERC consultations because hydroelectric projects nearly always involve damming a stream, bypassing the flow through a pipe and penstock that drops the water back into the stream through a turbine that generates electrical power. Some projects operate on a regime termed "run of river," meaning that water is passed through the turbines as it naturally flows down the river, and power is generated on a more or less continuous basis. Other projects operate on what is termed a "peaking" regime. In this method of operation, turbines are essentially turned off when demand for power is low, and the penstock is turned on when demand for power is high (or peaks). Thus, at some times the stream below the project is dewatered, and at other times the stream is inundated with large, swiftly-flowing rushes of water. Controversy about hydropower projects centers around two issues: (1) peaking is widely believed to cause harm to stream channels and fish and wildlife habitats, and also poses safety hazards; and (2) bypassed reaches mean several miles of stream might be dewatered.

Need to Negotiate in FERC Consultations

Although the FERC consultation process is structured by statutes and regulations requiring that applicants consult before preparing an application, not all FERC consultations result in agreements. When agreements are reached they are documented in the application. In the absence of agreement, the application contains separate reports from the parties. These negotiations provide a unique laboratory to test the hypothesis about perceived need to negotiate because they are

structured and the proceedings are documented and become part of the public record. The structure of the process ensures that some factors associated with ripeness are present, including diminished payoff from unilateral action and expensive alternatives to negotiation. Our definition of the need to negotiate relied on the work of several negotiation researchers (Cormick 1980; Fisher and Ury 1981; Bacow and Wheeler 1984; Bingham 1986; Zartman 1989). A need to negotiate means more than understanding the importance of being present; it means that parties accept the need to actively engage in the process and to bargain. People will do this only if they have something to gain by negotiation, or if negotiation will at least minimize inevitable losses. Fisher and Ury (1981) used the phrase "best alternative to a negotiated agreement" (BATNA) to describe this phenomenon. A BATNA is what one might expect to obtain by forgoing negotiation and relying on some other process or institution to settle the dispute. If the BATNA is not as favorable as what one expects to gain through negotiation, then it is in a party's best interest to negotiate.

Coughlan and others (1993) reported that a need to negotiate was critical for successful negotiations in FERC consultations. However, it was not necessary for all parties to feel a need to negotiate. If one or more parties believed that negotiation was the appropriate conflict resolution method, and they were able to encourage other parties to participate, the negotiation was often successful. A key factor was that some level of consultation was ordained by law. If negotiation was abandoned, the best alternative was that the applicant would simply submit the application to FERC within the designated time frame. If divergent recommendations concerning project operations were placed side by side on the application, FERC would then make a determination about which recommendations to accept. Coughlan and others (1993) reported on a comparison of two licensing consultations. By looking at six cases, we were able to identify a pattern of association between need to negotiate and success. Moreover, examining the study results from six cases allowed us to refine and expand their findings.

Methods

We tested the hypothesis using a Most Similar Systems design (Przeworski and Teune 1970) of comparative case studies. This system of comparing cases that are as similar as possible was described by Mill (1872) as the "method of difference" and the "method of concomitant variations." Lijphart (1971) referred to these methods as the first systematic formulation of the modern comparative method. The logic behind the Most Similar Systems design (Przeworski and Teune 1970) is that by isolating relationships between variables by eliminating as many extraneous variables as possible, the differences that surface are explanatory. Przeworski and Teune (1970) recognized the difficulty of detecting the interactions of various characteristics and their influence on outcomes, but stated that when many factors are held constant it may be possible to suggest possible causes for variation. Table 1 lists the selection criteria on which "most similar" cases were chosen.

Table 1. Criteria for selection of case studies

The case involved at least three and no more than 15 parties
The decision was negotiated in the FERC licensing or relicensing process
The case involved riverine resources as the main focus of mitigation negotiation
The project is located in either the northeastern or northwestern United States
No third party imposed its will on the negotiators before they could reach agreement
Actual negotiations did not rise above the regional office level
The case was resolved after PURPA and ECPA were established

Field offices of the US Fish and Wildlife Service were contacted to provide candidate cases that met our criteria. From an initial list of 20 cases, six were chosen for study. Service offices are required to maintain records of license consultations, and we obtained these files in order to develop case chronologies and identify all involved parties. After these steps were completed, we contacted the involved parties and asked the principal negotiators to participate in personal, tape-recorded interviews with a two-person interview team. Respondents were the agency, utility, or interest group personnel who actually took part in the negotiations. Each interview lasted from one to two hours. A total of 42 people were interviewed in 1992–1993. Tapes were later transcribed and analyzed. The questions posed to evaluate the "need to negotiate" are displayed in Table 2.

Our definition of a successful negotiation was modeled on the work of Lee (1982) and Bingham (1986): (1) each party believes that an agreement was reached; (2) the agreement contained an understanding of implementation procedures and could be monitored; and (3) the parties are willing to engage in future negotiations. Thus, we asked each respondent if the three conditions applied to the negotiation. We also asked for a rating of the negotiation on a scale of 1–10, with 1 meaning that it was a complete failure and 10 meaning that it was a complete success. Questions used to measure success are reported in Table 3.

Table 2. Questions asked to assess the "need to negotiate"

Why did (agency or company) get involved?
What really got your attention?
Describe your agency's level of commitment to the consultation process during this phase.
Does something stand out in your memory that especially illustrates your agency's commitment at this time?
How would you describe your organization's need to negotiate at that time?
Did something happen during this phase when your need to negotiate changed significantly? If yes, when was that? What was happening at that time?
How strong was your organization's need to negotiate in this phase of the consultation, on a scale of 1–10, where 1 = no need at all, and 10 = absolutely essential?

Table 3. Questions asked to measure success

1. Do you feel a satisfactory agreement was reached before the application was submitted to FERC?
   Was anything important left out of that agreement?
2. Did the license agreement include procedures to implement the project and mitigation actions?
   With authorities/responsibility identified?
   With agreed-upon timing?
3. How would you describe your agency's level of commitment to implement the final agreement?
4. At what point in the process did (agency) become committed to implement a final agreement?
5. How would you scale the (agency's) commitment to implement final agreements reached in this consultation, with 1 being no commitment and 10 being total commitment?
6. Did everyone agree to have the project operation monitored?
   If yes, who was responsible for the monitoring?
7. Has this monitoring actually taken place?
   If no, do you know why not?
8. Are you getting the physical/biological results you were expecting from this project operation?
9. Would you go back to the negotiation table with these same parties again?
10. Rate the negotiated agreement on this scale:
    1 = a complete failure to 10 = a complete success
11. What do you consider to be the key factors that lead to the success of this project?
12. What would you have done differently to make this process work better?

The Cases

Five of the six cases we studied were existing projects seeking license renewal and one was a new project. The new project was the Koma Kulshan project in the state of Washington. The projects seeking license renewals were Eastman Falls (New Hampshire); Oswegatchie (New York); Cataract (Maine); Pit 3,4,5 (California), and Ashton-St. Anthony (Idaho). Table 4 describes the important features of each project.

Participants in the negotiations always included the project applicant and its consultants; the US Fish and Wildlife Service; the state fish and game agency; and interest groups representing anglers, recreational river users, or those with environmental concerns. In some cases, tribal representatives, other state agencies, or the National Marines Fisheries Service were also involved.

Issues addressed in the consultations focused on questions of streamflow and the implications of various flow regimes on environmental resources and on project operations. Table 5 displays the main negotiation issues for each case. Mitigation for past or future resource damage was also a subject of negotiation. These concerns were manifested by discussions of appropriate instream flows and the techniques to be used to determine flow recommendations, fish passage, enhancement of reservoir fisheries, and continuation or improvement of recreational facilities and opportunities. The general pattern was for the parties to resolve most of the issues with relative ease and then to spend the bulk of the negotiation attempting to come to agreement on one or two issues. The remaining issues were usually those of high salience to resource agencies because they dealt with central issues of resource protection and to applicants because they almost always required expensive retrofitting or costly changes in project operation.

Findings

One negotiator described the situation as follows:

> Negotiation was a given, you're going to negotiate. FERC was not taking an active part in overseeing the process, so therefore the competing interests were left to hammer these issues out. So, if the competing interests didn't hammer it out, there would be nothing happening. So, I guess all parties had the very highest need to negotiate, since they were sort of left to flounder, as far as I was concerned.

The relationship between negotiation success and need to negotiate is displayed in Table 6. For the two cases rated "fully successful," a need to negotiate was reported by all participants. For the four cases described as "minimally successful," two reported a need to negotiate and two did not. One conclusion is that a need to negotiate is a necessary condition for successful negotiation, but need to negotiate alone does not assure successful negotiation. When parties to a dispute endorse the process of negotiation as a legitimate tool, and make an attempt to reach agreement, the chances of solving the problem are increased, but natural

Table 4. Major features of each project

Project name	Location	Length of consultation	Number of parties interviewed	Project description
Koma Kulshan	Northwestern Washington (Sandy/Rocky/Sulphur Creeks)	10 years (1979–1989)	11	Project consists of diversion structures on Rocky and Sulphur Creeks, an 18,810-ft-long penstock, a powerhouse containing a generating unit with a rated capacity of 12,000 kW, and appurtenant facilities.
Eastman Falls	New Hampshire (Pemigewasset River/ Merrimack River)	6 years (1981–1987)	5	Dam is located within the town of West Franklin, NH, on the Pemigewasset River just upstream from the confluence of the Pemigewasset and Winnipesaukee rivers.
Oswegatchie	New York (Oswegatchie River)	12 years (1980–1992)	8	Series of six dams and hydropower facilities. Four of the six located in the upper basin; other two 70 miles downstream near the river's mouth.
Cataract	Maine (Saco River)	5 years (1984–1989)	8	Series of four facilities (Cataract, Upper York, Springs, and Bradbury dams) constructed adjacent to two islands in the Saco River. Located 5 river-miles from the ocean, it is the first of a series of six projects on the Saco River.
Pit 3,4,5	Northern California (Pit River)	13 years (1980–1993)	5	Series of three diversion structures and power stations. Negotiations focused on Pit 3 reach, which is bypassed by more than a 4-mile-long penstock running underground from Britton Reservoir (Pit 3 dam) to the powerhouse at the head of reach 4.
Ashton-St. Anthony	Idaho (Henry's Fork of the Snake River)	8 years as of 1992 (ongoing)	11	Project is divided into two developments on the Henry's Fork of the Snake River: a reservoir, dam, and powerhouse near the city of Ashton, ID, and a diversion and electric power generating facility within the limits of the city of St. Anthony, ID.

resource negotiations are complicated, and not all conflicts are tractable.

We found that several factors were associated with a need to negotiate: a weak BATNA, a salient issue, participants' sense of efficacy, a sense of inevitability, exogenous factors, professional roles encouraging negotiation, and disputes about facts as opposed to disputes about values.

Influence of BATNA

Fisher and Ury (1981) coined the term "best alternative to a negotiated agreement" (BATNA). As a negotiation tool, participants are urged to evaluate alternatives to negotiation in order to determine whether or not to continue with the process. If the outcome anticipated from other alternatives is expected to be more favorable than one obtained through negotiation, then it may be reasonable to end the negotiations. For example, in a specific situation one might choose among the options of negotiating, avoiding the conflict, and taking court action. If avoidance or court action are likely to produce better outcomes than negotiation, they would be better alternatives than negotiation. Conversely, if the results expected from these alternatives are predicted to be less favorable than those obtained through negotiation, perseverance in negotiation may be advisable.

In the FERC licensing cases we studied, regulations required a formal process of consultation among resource agencies, project operators, and other interested parties. At the conclusion of the consultation, the applicant was required to submit the application to FERC for a final decision. However, the amount of

Table 5. Main issues addressed in each project

Project name	Main issues
Koma Kulshan	Flow, sediment, access
Eastman Falls	Flow, fish passage, recreation quality
Oswegatchie	Flow, recreation access and quality, water quality
Cataract	Flow, fish passage, access, water quality
Pit 3,4,5	Flow, eagle habitat, wetland protection, riparian area protection, reservoir levels, tribal lands, access
Ashton-St. Anthony	Flow, fish passage, turbine mortality, reservoir fishery, wetlands, riparian zone protection, raptor nesting.

Table 6. Relation between need to negotiate and successful negotiation

Project name	Need to negotiate?	Level of success
Koma Kulshan	YES	Full
Eastman Falls	YES	Full
Oswegatchie	NO	Minimal
Cataract	YES	Minimal
Pit 3,4,5	YES	Minimal
Ashton-St. Anthony	NO	Minimal

actual negotiation that took place varied from case to case and from one point in time to another. One explanation for this was the perceived BATNAs of the various parties. It appeared that when parties felt that FERC was likely to side with them if controversies arose over license conditions, the need to negotiate diminished. Conversely, if FERC's support was uncertain or absent, parties felt a heightened need to negotiate. A typical observation is captured in the comment of a resource agency representative: "I guess at this point, I don't feel a need to negotiate. I feel that we could get just as good a deal, or a better deal, going to FERC, than necessarily trying to come to some sort of resolution with [the power company]."

A participant in a different consultation noted that: "We had no incentive to reach agreement. Because I think, at that time, we felt we stood a pretty good chance of getting FERC to agree [with us]. If we didn't reach agreement, that's fine."

Some presented the opposite view: "We were probably fairly motivated to negotiate, because, that being the early '80s, we were still at a point where FERC was not accepting many of our recommendations, or they were being diminished, significantly."

Negotiators from both resource agencies and utilities noted the importance of their estimation of likely FERC action in the event of a lack of agreement. Those believing that FERC would favor them in the face of breakdown in negotiations were less motivated to hammer out an agreement; those without that confidence were more inclined to see the importance of the negotiation. Negotiation was the arena in which they held most hope of getting what they wanted.

Salient Issues

When we asked participants why they felt a need to negotiate, many indicated that a sense of saliency, or importance of the issue, instilled this need. Issues in natural resource negotiations become salient to individual participants for several reasons: (1) the issue is close to the central mission of the negotiator's agency, department, or company. (2) The resources at stake are unique or important. (3) The resources are likely to be damaged by the proposed action. (4) Some sanctions will be applied if parties do not negotiate. In some cases, negotiators stated that they felt a strong need to negotiate throughout the consultation, and in other cases stated that their need to negotiate fluctuated, depending on when issues of importance to them were discussed. Indeed, some issues were considered too important to submit to FERC for resolution. Rather than face uncertainty, these key issues were negotiated to minimize risk. Typical comments from resource agency representatives included:

> There are certain inland fisheries involved in the project area, and recreational uses of the fisheries, and an interest to know if there was any outstanding wildlife habitat that might be affected by the project operations, and water quality issues.

> [We felt a need to negotiate] because of the commitment on our part to make sure that we get what we feel is necessary for fish and wildlife protection at hydro projects.

> Because of the high interest in the Atlantic salmon resource and restoration, we became involved.

A utility representative described how the company had missed opportunities to negotiate because the negotiators did not understand the importance of some of the issues under discussion. Although the actual need to negotiate, in retrospect, seemed to have risen when important issues were on the table, the utility's negotiators did not see this and missed opportunities. Later, when different negotiators were assigned to the consultation they were able to revisit some issues and address those of highest importance. In the words of a respondent: "I think the need was very high because what had basically happened is the Company was now in the driver's seat. There was not a consultant interfacing, so the Company was going one on one with the agencies, and was asking for clarification."

Although it seems obvious that one feels the need to

negotiate when critical issues are under consideration, the above statements illustrate that it might not always be obvious what those critical issues are. Indeed, even if there is general agreement on the nature of the most important issues, negotiators must also analyze the feasibility of implementing agreements and use this analysis as a basis for prioritizing needs. In the case of the above-mentioned utility, a negotiator made concessions without understanding the implications of implementing key portions of the plans. Thus, they were unable to determine when their need to negotiate was critical.

Participants' Sense of Efficacy

When we asked about the need to negotiate, we were frequently told that negotiation was pursued because individuals believed that their actions would make a difference in the final outcome. They believed that active bargaining, above and beyond the statutory requirement of being present, would produce positive results. This was either a result of the individuals' strong belief in the correctness of their position or their sense of personal ability to prevail in the negotiation. In some cases, negotiators felt a sense of efficacy, and the issues were highly salient. This greatly increased their need to negotiate. In other cases, efficacy was present but the issues were not highly salient. One negotiator from a state water quality agency noted that:

> From a regulatory standpoint, we always need to be involved, because we are the [water quality] certifying agency. The State has no intention of waiving its certification rights on hydro projects. The issues are too important. . . . There's an absolute need for us to be involved, so we can set those conditions; so we can make sure that we've set a floor for FERC to act.

Efficacy was strongly related to perceived power in the cases we studied. Thus, those without resources tended to feel less efficacious and less driven to negotiate. Without power, parties felt that it made no difference whether or not they negotiated; they would simply be outmaneuvered. Some who responded that they felt little need to negotiate, but participated because they were required to, probably were reacting to a lack of perceived power.

Inevitability

A belief that issuance of a project license was inevitable often diminished participants' need to negotiate. For example, in the Eastman Falls project a new license was inevitable because before the consultations began, a comprehensive fish passage plan for the entire river had been finalized. Settling this issue beforehand meant that there was little room to maneuver when consultations began. This is not to say that all of the negotiators completely agreed with the terms of the comprehensive plan. In fact, some parties believed that they had been wrongly left out of the comprehensive plan negotiation and were reluctant to commit themselves to its terms. In any case, those who were involved in both the negotiations for the comprehensive plan and the project license described an extremely high need to negotiate during the former process because the stakes were very high, but a greatly diminished need to negotiate for the license.

In Koma Kulshan, the sense of inevitability did not dampen participants' need to negotiate, despite the fact that the anticipated effects on resources were minimal. Several technical issues, such as the location of the penstock so that it would not damage a plant on the state's list of endangered plants, were important. However, once an atmosphere of cooperation was established among the parties, these and other issues were resolved. Two factors probably accounted for a high need to negotiate in this case: (1) the project had not yet been built and everything was open for discussion, and (2) even though the issues were not highly salient, all parties felt a sense of efficacy. This shared sense reflected a situation in which all parties felt they had something to gain by negotiating. Participants were also aware of the fact that not all gains were measurable; setting precedents for positive relationships among parties and commitment to process were also important.

Exogenous Factors

Exogenous factors are events occurring outside of a system that produce unexpected effects. These effects may be serendipitous or disastrous. In several negotiations we studied, circumstances beyond the scope of the negotiation intervened to alter the parties' need to negotiate.

One example occurred during the negotiations for the comprehensive plan in the Eastman Falls case. In the midst of the comprehensive plan negotiations a dam within the city limits washed out during a spring flood, creating a stretch of free-flowing river with excellent fishing. Suddenly, city residents previously unaware of the desirability of promoting good fish habitat became supporters of a comprehensive plan that would provide strong protection to local fish populations. A sudden wellspring of public support increased the resource agencies' need to negotiate, because it increased their sense of efficacy and the

saliency of the issue. A resource agency representative commented that:

> [P]eople were drawn to this river right in Concord . . . there were tremendous fish in there, and it looked nice, and our Fish and Game Commission, our policy setting board, decided that they would change their position of not opposing the development of hydro on an existing dam at the site where the dam breached . . . [T]he Fish and Game Commission offered to the hydro-developer to buy out his development rights.

For the Cataract project on the Saco River in Maine, an exogenous factor worked to diminish the need to negotiate. Many of the Cataract negotiators were simultaneously involved in a negotiation on another project, which was going poorly. The problem was that in this other negotiation, parties were attempting to construct a comprehensive river management plan, much like the Eastman Falls Project, into which the Cataract project would fit. However, after some months of inability to progress in constructing a comprehensive plan, the negotiations fell apart, the idea of a comprehensive plan was abandoned, and the project operator decided to proceed with relicensing on a case-by-case basis. This led to a sense of mistrust among the parties, because some felt that the applicant had essentially reneged on an agreement. Because of a diminished sense that the negotiation was likely to come to a positive conclusion, the negotiators reported a significant drop in their need to negotiate from that point in the process.

In the Ashton-St. Anthony project, in Idaho, the passage of ECPA midway through the consultation process acted as an intervening variable. The effect of ECPA was to bring uncertainty to the process, because until regulations were promulgated and some implementation history established, the changes in the licensing process were unknown. In the face of this high degree of uncertainty, parties' need to negotiate diminished. According to several participants, little need to negotiate existed because there was no way of knowing what the outcome would be—a process that at one time had been fairly predictable was turned into one of uncertainty. One change noted by some was that project applicants made more concessions to resource agencies during this period than they had in similar situations in the past. A representative of the applicant stated that:

> It appears to me in a review of the application at that time, the early letters and subsequently what was filed by the Company, that for the most part what the agencies requested was accepted. By present standards, I would say that negotiations would be much stronger and that there would be more questioning as far as why the agency wants what they want.

Yet another intervening variable affecting parties' negotiating behavior and need to negotiate was the perception of the intentions of the FERC. As a rule, FERC kept their distance from the licensing proceedings until they actually received a license application. Several interviewees told us that they looked to FERC for signals and that the process would have gone more smoothly if FERC had taken a more active role. Without FERC guidance, parties predicted the outcome of the negotiation by estimating FERC's probable actions if the parties were unable to reach agreement and submitted conflicting recommendations. If the likely outcome was that FERC would not agree with them, a party was more motivated to negotiate. Conversely, when a party believed that FERC would not take their side, they attempted to resolve licensing concerns themselves rather than accept a less favorable outcome from FERC. Because the intentions of FERC were a moving target in the view of both resource agencies and applicants, we were commonly told of a change in the perceived need to negotiate based on perceptions of FERC's preferences. In one case, FERC staff were contacted regularly by negotiators and made some preliminary rulings on flow recommendations. Thus, it was possible for individuals to gauge the inclinations of FERC, or so it was assumed. When negotiators believed that FERC was supportive of their position they felt less need to negotiate; when FERC support was less secure, the need to negotiate increased.

Professional Roles Encouraging Negotiation

Because of the nature of the FERC licensing process and the regulatory requirements surrounding licensing, most individuals were present at the negotiations because they were required to be, either by statute or because it was part of their job duties. However, great variability existed in the actual felt need to negotiate in the sense of bargaining. An additional factor that seemed important in explaining this variability was that different people appeared to view negotiation as a more or less acceptable option. This can be explained in part by the concept of professional role.

Two aspects of professional role are especially important in understanding negotiation. First, organizations tend to develop and maintain distinctive styles of decision making (Allison 1970; Lamb 1980). This promotes incremental decision making, so that current decisions are not dramatically different than those made in the past. The effect on individual decisions and individual negotiators is that the palette of available behaviors is constrained by the past pattern of choices. Thus, an individual negotiator's need to negotiate becomes tied to how close the proposed alternatives are to past determinations. If the proposed alternatives are

far removed from the realm of what is considered acceptable, then a negotiator often decides that there is no need to negotiate, because the proposed outcomes are too far afield to even consider. This is sometimes a strategic behavior used to compel others to put forth a more "reasonable" proposal so that negotiation may begin in earnest.

The other aspect of agency role operates on the level of individual behavior. Those we interviewed sometimes told us that they do not negotiate—they provide recommendations based on the best possible application of scientific techniques. Different individuals involved in different negotiations but from similar technical backgrounds often related stories of their inability to negotiate, based on their belief that there was no room for negotiation, because the question was a scientific one, amenable to analysis. Kennedy (1985) and Clark and Kellert (1988) defined the culture of the fishery or wildlife biologist who is trained to trust in science and believe that natural resource conflicts are tractable with the proper application of the scientific method. In one case, resource agencies concluded that a particular stream reach required 300 cubic feet per second (cfs) of water. The applicant offered to maintain a flow of 150 cfs. A resource agency representative responded that, "The studies said get 300 . . . this 300 was our bottom line; I felt no need to come in and negotiate." He added that he believed that FERC would "give them a better deal." From the perspective of the applicant, the 300 cfs figure was viewed as a starting point in a negotiation, and they were surprised that the resource agencies so quickly presented their "bottom line."

Disputes About Facts versus Disputes About Values

From our study of interagency negotiations, it seems clear that it is easier to negotiate about facts than to negotiate about values. The difficulty is knowing when the dispute leaves the realm of facts and enters the realm of values. Simon (1976) argued that every decision contains elements of facts and elements of values. Facts are the testable, science-based portion of making a decision; values are the preferences and the prescriptions and are based on normative assumptions. In the negotiations we studied, parties were usually able to come to agreement about the physical effects of the project, and often agreed on the efficacy of various remedial actions. What they could not agree on was the objective of the consultation process and the ideal project operating scenario. In short, they could not agree on values. Each participant held an idea of what the project should or should not do, and these ideas often clashed. Consequently, in some consultations parties felt little need to negotiate about facts (because of professional or agency roles) and little need to negotiate about values (because values are not negotiable).

Conclusion

We expected to find the need to negotiate was associated with successful negotiation. That proved to be true in the cases we studied. The two cases, Koma Kulshan and Eastman Falls, in which respondents reported the most need to bargain were also the most successful. We also found a number of factors that make the need to negotiate a complex variable. First, as in other types of negotiations, decisions external to the process may provide cues about probable outcomes if parties are unable to reach agreement. For example, a court may determine a similar question in a neighboring state. In FERC consultations these outside influences might include an administrator resolving a dispute over wetland regulations between agencies and landowners or a court deciding a question about property rights. Throughout the course of a negotiation, parties must consider the interlocking effects of BATNA and need to negotiate, not only for themselves but to all other parties. Seemingly recalcitrant negotiators may appear quite rational when viewed in this light.

The result of a negotiation may seem preordained but inevitability does not always mean a need to negotiate evaporates. Even if the ultimate decision on a license or permit seems clear, there may be many substantive and process issues to resolve. For example, respondents in all the cases we studied said that they would be required to negotiate with the same parties and individuals in the future. That continuing relationship seems common in natural resource bargaining. Maintaining the relationship, establishing precedent (in terms of process, role, or substance), ensuring legitimacy, building a track record, and confirming expertise are all reasons to bargain even when the general outcome is fated. Another example from our cases is the plethora of small questions that can be resolved even though a major issue remains in dispute. Although some negotiations were marked by a lack of agreement on important issues, the parties were able to decide process and intermediate questions. Those agreements became part of the record and affected the final outcome.

The principal theme woven through respondents' commentaries was ripeness. Participants in the consultations were receptive to the idea of negotiation when they felt ready and able to resolve the issues. Part of the feeling that the negotiation was ripe derives from the pressure of deadlines. Some deadlines—such as reporting time limits—are built into the FERC process, but

these were often circumvented. Other deadlines, such as availability of funding, were natural obstacles created by choices and limitations of the parties. Still other deadlines arose from the requirements of technical studies. For example, data collection could only be accomplished within the appropriate field season. Another part of the feeling that a negotiation was ripe developed from the required sequencing of events. Events were sequenced because of regulatory requirements, the progress of scientific studies, and construction scheduling. As the parties approached a problem that had to be resolved so that other steps could be taken, they perceived that the time was ripe to bargain. In each successful negotiation, that perception was enhanced by a hurting stalemate in which all parties experienced heightened risk and uncertainty.

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