



**Institute for Conflict Analysis
and Resolution**

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**A Journey from the Laboratory to the Field:
Insights on Resolving Disputes through Negotiation**

**by
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About the Author

Daniel Druckman is the Vernon M. and Minnie I. Lynch professor of Conflict Resolution at George Mason University's Institute for Conflict Analysis and Resolution, where he also coordinates the doctoral program. Previously, he directed a number of projects at the National Research Council and held senior positions at several research consulting firms. He received a Ph.D. from Northwestern University and was awarded a best-in-field prize from the American Institutes for Research for his doctoral dissertation. He has published widely (including 11 authored or edited books and more than a hundred articles) on such topics as negotiating behavior, nationalism and group identity, group processes, peacekeeping, political stability, nonverbal communication, enhancing human performance, and modeling methodologies, including simulation. He received the 1995 Otto Klineberg Award for Intercultural and International Relations from the Society for the Psychological Study of Social Issues for his work on nationalism and a Teaching Excellence Award in 1998 from George Mason University. He currently sits on the boards of six journals, including the *Journal of Conflict Resolution* and the *American Behavioral Scientist*. He is an associate editor of *Negotiation Journal* and of *Simulation & Gaming* as well as a founding board member of *International Negotiation*. He is the editor of the special issue of the *American Behavioral Scientist* on "Public and Private Cooperation in the Beltway," published in August 2000, and coeditor of the recent National Research Council book on *International Conflict Resolution after the Cold War*, for which he also wrote chapters. His comparative study of turning points in international negotiation will appear in the August 2001 issue of the *Journal of Conflict Resolution*.

About the Institute

The Institute for Conflict Analysis and Resolution at George Mason University in Fairfax, Virginia, has as its principal mission to advance the understanding and resolution of significant and persistent conflicts among individuals, communities, identity groups, and nations.

In the fulfillment of its mission, the institute conducts a wide range of programs and outreach. Among these are its graduate programs offering the Doctoral and Master of Science in Conflict Analysis and Resolution, clinical consultancy services offered by individual members of the faculty, and public programs and education that include the annual Vernon M. and Minnie I. Lynch Lecture Series.

The institute's major research interests include the study of conflict and its resolution, the exploration and analysis of conditions attracting parties in conflict to the negotiating table, the role of third parties in dispute resolution, and the application of conflict resolution methodologies in local, national, and international settings. The institute's Applied Practice and Theory Program develops teams of faculty, students, and allied practitioners to analyze and address topics such as conflict in schools and other community institutions, crime and violence, jurisdictional conflicts between local agencies of government, and international conflicts.

The Northern Virginia Mediation Service is affiliated with the institute and provides conflict resolution and mediation services and training to schools, courts, and local agencies and practitioners in communities across Northern Virginia and the Washington metropolitan area.

For more information, please call (703) 993-1300 or check the institute's web page at www.gmu.edu/departments/ICAR/.

Foreword

It is with great pleasure that we present this Occasional Paper by our long-time colleague at the Institute for Conflict Analysis and Resolution (ICAR) Daniel Druckman. Druckman's productive professional career has spanned a wide-range of questions that are at the heart of negotiation theory and the broader field of conflict analysis and resolution. He previously published an ICAR Occasional Paper in 1989 on negotiating base-rights agreements. As detailed in the professional "journey" recounted in this Occasional Paper, he has worked in a variety of institutional contexts and on a range of questions but with a cumulative set of interlinked core questions.

Throughout his career, Druckman has emphasized how methodological rigor is a critical component of theory and practice development. As he notes in this paper, he has used multiple methods in the development of his body of work and concludes that "converging findings obtained in several arenas, using multiple methods, confer the sort of empirical robustness that enhances the validity of our constructs." He has been guided by this approach in a number of other areas of research as well.

This Occasional Paper is Druckman's answer, at least in part, to a fundamental question that graduate students at the Institute for Conflict Analysis and Resolution and elsewhere often ask—where do ideas for research come from? The response put forward in this paper is that they come in large part from theoretically derived models and from methodologies designed to explore the implications of such models. Druckman argues that frameworks are valuable as organizational tools and as guides for the design and analysis of data-collection. He believes that the immediate situation is generally the primary influence on the behavior of actors in a negotiation and that such behavior is best understood in terms of an ongoing process.

In this intellectual journey, Druckman touches on a wide range of themes of interest to the field of conflict analysis and resolution and how social science can help us understand the negotiation process and provide insights into resolving conflicts. Druckman concludes this essay with the hope that this research approach may serve as a model for the next generation of scholars in conflict resolution, a hope that we at ICAR enthusiastically endorse.

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A Journey from the Laboratory to the Field: Insights on Resolving Disputes through Negotiation¹

Daniel Druckman

I am going to present a collage of my research on negotiation. Using a variety of analytical approaches, the research spans several decades of work and, although it has not been my only area of research and writing, it is the topic that I most consistently attended to, with work beginning in graduate school in the 1960s and continuing with publications in 2001. I do hope that you will indulge me in a few reminiscences about the long journey that I have taken while working in several different organizational contexts, including two research institutes (the Institute for Juvenile Research and the International Institute for Applied Systems Analysis), two for-profit consulting firms (Mathtech and Booz-Allen & Hamilton), a nonprofit science policy organization (the National Academy of Sciences), and a graduate department at a university (George Mason's ICAR).²

I would like to give you a sense of where some ideas for research on conflict resolution come from and how these ideas are investigated in various settings with different methods. It has been particularly interesting for me to move in my work from smaller to larger numbers of experiments or cases, to regard an experiment (with replications) or a case as a data point in a larger analysis design. It has been just as interesting to move in the opposite direction—to apply theoretical ideas developed in conjunction with experiments to the analysis of single complex cases. By taking you on this journey, I hope to convey the value of doing basic, theory-inspired research at the close of a millennium of scientific progress. The paper is organized in six parts: bargaining flexibility, from research to application, models of responsiveness, values and interests, dimensions of international negotiation, and turning points. Each part concludes with lessons learned from the research on that topic. I conclude with a discussion of the key themes emphasized in this program, spanning more than three decades of research on negotiation and related processes.

Bargaining Flexibility

I begin with a **flashback** to the early to mid-1960s when I was a graduate student in Northwestern University's Psychology Department and a graduate research assistant on the cooperative cross-cultural study of ethnocentrism (LeVine and Campbell 1972).

Negotiating as representatives of groups. Among the many ideas that I was exposed to on the ethnocentrism project, the human relations training program implemented by Robert Blake and Jane Mouton caught my attention. They shared our ethnocentrism project's interest in emotional attachments to groups. At the time I was also learning to become an experimentalist, which was the predominant emphasis in the Northwestern Psychology Department's culture of that era. An important part of the training consisted of being schooled (actually drilled) in the use of **the analysis of variance** (ANOVA), thanks in large part to Albert Erlebacher's statistics classes and Benton Underwood's course on verbal learning, as well as his book on psychological research (Underwood 1957). So strong was the belief in classical designs that deviation from the paradigm—even to quasi-experimental designs—was regarded with scorn. Simply put, it was nearly impossible for experimental and social psychology students to do a nonexperimental dissertation project.³ It was the starting point for my investigations of negotiation—a quest that has led to case study research, but even here the experimentalist's concern for analytical rigor is evident, as you will see.

Blake and Mouton's **single-factor explanation** for inflexibility in bargaining—in terms of representing groups—contradicted the idea of separating the components of variation (as main effects and interactions) in a dependent variable. You may recall their studies, mostly reported in the early 1960s and sponsored by the Gulf and Esso Oil Companies, on human relations training in company contexts. Their experiments were conducted with 520 participants organized into 62 groups of varying size, ranging from 18 to 36 people. The groups engaged in a parallel sequence of activities focusing on intergroup competition. The sequence of activities consisted of, first, developing autonomous groups (10 to 12 hours to build a cohesive identity), creating intergroup competition (3 hours for each group to develop its own approach to the assigned problem), clarification of group positions (1 to 2 hours spent in in-group discussion, evaluation of the merits of each solution, and election of group representatives), and determining a winner and loser (representatives from contending groups attempted to reach a decision on which was the more adequate solution). Discussions continued until a decision—namely, agreement on which group produced the better solution—or deadlock was reached. If deadlock ensued, impartial judges were asked to render a verdict. Sixty of the

62 group representatives deadlocked by standing firm on their own group's product (see Blake and Mouton 1962).

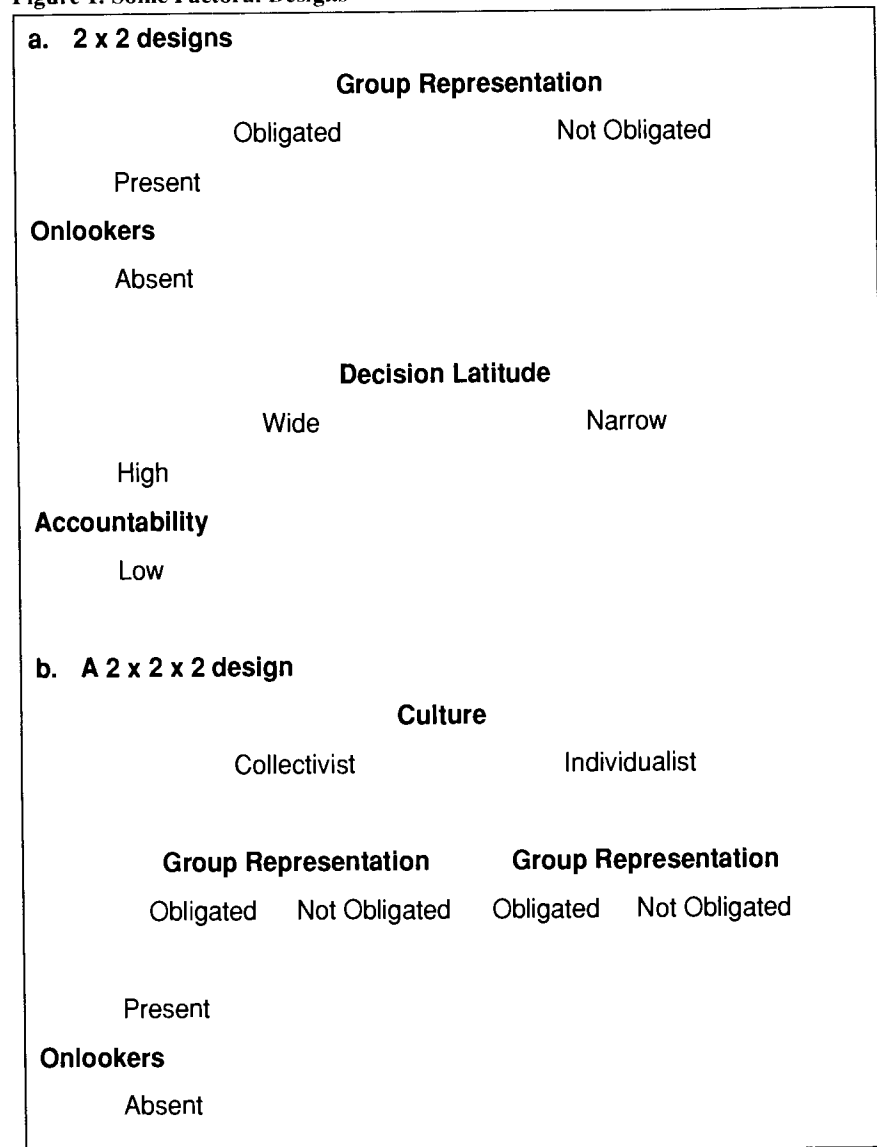
They interpreted their findings in terms of the impact of constraints on **group representatives** that prevent them from reaching agreement. Additionally, they claimed that their results showed that membership identification (per se) influences perception, judgment, and cognition of competitive group products in predictable directions (Blake and Mouton 1961). The work has been widely cited (1,572 citations just from 1972 forward). This conclusion was in keeping with similar findings reported in studies done in the 1960s by the Sherifs (1965), Bass and Duntzman (1963), myself (Druckman 1968) and others. More recently this line of research was conducted with Tajfel's (1982) minimal group paradigm (MGP), and the MGP took over, in the 1980s, from the venerable prisoner's dilemma, popular in the 1960s and 1970s, as the most widely used **laboratory** task for studying interpersonal and intergroup relations.

A close look at the Blake and Mouton procedures revealed several alternatives to their interpretation of the findings. Group representation was confounded with a number of other sources of variation: in particular, the representatives' attitudes toward compromising and whether they studied or strategized about the issues to be negotiated in prenegotiation sessions. The representatives in their intergroup experiments shared certain rated behavioral characteristics that distinguished them from nonrepresentatives, and they participated with their group in long unilateral strategic planning sessions prior to the intergroup negotiation. Thus, the results could have been due either to attitudes toward compromise or to strategizing rather than to being a representative per se. This revelation led me, as a 20-something graduate student in a methodologically self-conscious department, to think about providing clarification for these interpretations through the time (and Northwestern) honored approach of experimentation.⁴ The clarification began by asking a question at the heart of **behavioral social psychology**: What are the relative influences on negotiating (and similar conflict-resolving) behavior of the person (attitudes), role (as representative), and situation (prenegotiation experience)? This question was the basis for my dissertation project, which consisted of embedding an experiment in a simulation of collective bargaining. Contrary to Blake and Mouton's interpretation of their findings, these results indicated that the prenegotiation manipulation (strategizing or studying the issues) and attitudes toward compromise were significant but that the representation manipulation was not (Druckman 1967).⁵

Following my dissertation work, my colleagues and I at the Institute for Juvenile Research (IJR) conducted a series of **experiments** in which **group representation** was manipulated in conjunction with such other aspects of the

situation as prenegotiation experience, audiences, instructional set, decision latitude as own versus assigned positions, and the evaluative implications of various types of accountability to constituents, as well as such background variables as attitudes toward compromise (and related definitions of the

Figure 1. Some Factorial Designs



situation) and culture. In these studies only a few variables (never more than four) were created in the **factorial** (ANOVA) designs suitable for testing hypotheses about main effects and interactions. A variety of research designs were created, such as the 2 x 2 and 2 x 2 x 2 forms shown in figure 1. (Many of these designs were carried out at the Institute; still others remain on the drawing board.) We also used a variety of board game and simulation tasks in which opposing negotiators attempted to resolve conflicting interests over the way resources were distributed between them. The simplest task consisted of making sequential offers for the distribution of chips with monetary values until the negotiators agreed on a division between them (e.g., Druckman et al. 1972; Druckman et al. 1972a). The more complex tasks placed negotiating representatives in the roles of political decision makers responsible for assigning budgetary resources to alternative programs (e.g., Zechmeister and Druckman 1973; Druckman et al. 1977).

The effects for the group representation variable on negotiating flexibility were inconsistent from one experiment to another. Sometimes the effect was contingent on a variety of other aspects of the negotiating situation, such as the relationship between the representative and her constituents (more competitive when hierarchical), when there was no salient option that allowed them to resolve the dilemma of satisfying the other side's demands as well as those of their constituents, and the extent to which constituents had control over the distribution of resources and positions taken by the delegates. Other times the effects of group representation were trumped by other variables included in the design, such as orientation toward the task, prenegotiation preparation, or culture.

What was IJR? It was a Chicago-based institution chartered in 1909 by the state of Illinois to study juvenile delinquency. It was particularly notable for early research (in the 1920s–1940s) on the sociology of urban gangs. However, its research heyday was in the 1960s to early 70s when I was on the staff of the research program—for nine years (1966–1975)—as a senior research associate and program director of the social-psychology/conflict management program. It also had a large clinical operation, and I conducted, with Tom Bonoma, one of the early conflict resolution workshops to address conflicts between the three clinical professions at the institute (clinical psychology, social work, and psychiatry). The results appear in an issue of the International Journal of Group Tensions (Druckman and Bonoma 1977). I also participated with Herbert Kelman, Leonord Doob, and Stephen Cohen in one of the early panels on workshops at the New England Psychological Association in 1971.

I continue with a **flash forward** to the 1990s:

Meta-analysis. It took about 25 years since my dissertation work was completed in 1966 to accumulate enough experiments for a robust evaluation of the effects of group representation relative to the many other variables shown also to influence negotiating behavior. It became possible to do this sort of evaluation with the advent of meta-analytic techniques. Meta-analysis is a statistical approach to cumulating findings across many experiments in a domain such as bargaining. The initial applications occurred in the late 1970s (e.g., Glass et al. 1981). This is a very labor-intensive approach to analysis. Over the course of three years, I was able to sort the published studies into 10 independent-dependent variable categories and perform the computations needed to ascertain the relative size of effects. The impact of each of 10 independent variables was assessed on two dependent variables: compromising behavior and time to resolution or settlement. The effects were evaluated by computing effect sizes.

The effect size is a correlation coefficient. It is calculated by formulas that convert significance-test ratios (t-tests, F-tests, chi-square) used to compare two conditions at a time (Wolf 1986). The coefficient is then a common metric suitable for comparing results from different studies. Usually, an average is taken, based on the effect sizes calculated from all the studies within an independent-dependent variable category (e.g., prenegotiation experience on time to resolution; time pressure on compromising behavior), and these are shown in tables 1 and 2.

Table 1. Average Effect Sizes for Variables on Compromising Behavior

Variable	No. of Studies	Effect Sizes (ES)	Variation*	Range of ES
Orientation	9	.42	.15	.66-.21
Prenegot. exp.	14	.37	.11	.48-.17
Time pressure	6	.37	.10	.54-.26
Position distance	10	.35	.18	.74-.10
Other's strategy	11	.32	.18	.57-.20
Representation	9	.30	.14	.53-.05
Accountability	6	.27	.05	.34-.19
Framing	4	.21	.14	.29-.10
Size of issues	8	.18	.21	.40-.30
Visibility	9	.17	.20	.45-.20

Table 2. Average Effect Sizes for Variables on Time to Resolution

Variable	No. of Studies	Effect Sizes (ES)	Variation*	Range of ES
Time pressure	4	.43	.16	.65-.30
Size of issues	4	.43	.28	.68-.09
Prenegot. exper.	11	.34	.13	.67-.05
Representation	5	.26	.28	.56-.10
Accountability	4	.21	.12	.32-.06

* These are standard deviations (SD); the larger the SD, the more variation in the ES across the studies

Adapted from Druckman (1994)

Comparing the various effect sizes with ANOVA, I discovered three clusters with orientation (viewing the negotiation as a contest or as a problem to be solved), prenegotiation experience (preparing for the negotiation either by studying the issues or by developing strategies), and time pressure (either a deadline or costs imposed for time spent negotiating) producing the strongest effects; size of issue (central or peripheral issue) and visibility (audience present or absent during negotiation) the weakest. Note that representation (representing a team or organization or only oneself) and accountability (outcomes do or do not have consequences for constituents) are relatively weak on both the compromising and time to settlement measures. I also evaluated the impacts of the **framing** manipulations derived from prospect theory, which was quite popular in the 1980s and 1990s. Emphasizing either gains or losses likely to be incurred from the bargaining, these manipulations were performed in experiments by Bazerman and his colleagues (e.g., Bazerman et al. 1985). Contrary to the investigators' interpretation of their own findings, these studies produced a weak effect size (.21) across the four studies that provided relevant information.

Simply stated, the strongest variables are those that encourage bargainers to view the situation as a competitive contest—orientations, prenegotiation preparation, time pressure. The weaker variables, including group representation, leave open the possibility that the cooperative pursuit of solutions (rather than winning) is the purpose of the bargaining task. The strong effect sizes for the former variables are a result of a clear difference between the conditions of the variables—namely, developing strategies leads to competitive negotiating behavior while studying the issues leads to cooperative behavior. The weak effects for the latter variables occur because the difference between the conditions of the variable are not clear; namely, some group representatives are cooperative and some of the negotiators representing only themselves are competitive.

It is interesting to note some similarities between the effect sizes obtained in this analysis and those obtained in meta-analyses conducted on related topics. The effect sizes for the stronger variables in this study (ranging from .34 to .43) are comparable to those obtained in Freeberg and Rock's (1987) analysis of team performance and Johnson et al.'s (1981) analysis of goal structures (cooperative, competitive, individualistic); relatively strong effect sizes were obtained for the team (prenegotiation experience) and orientation variables in all these analyses. The effect sizes for the weaker variables in this study (ranging from .17 to .32) were similar to those obtained for the behavior categories in Harris and Rosenthal's (1985) analysis of expectancy effects.

Another advantage of meta-analysis is the comparison of **outliers**. These refer to the studies within each independent-dependent variable category that

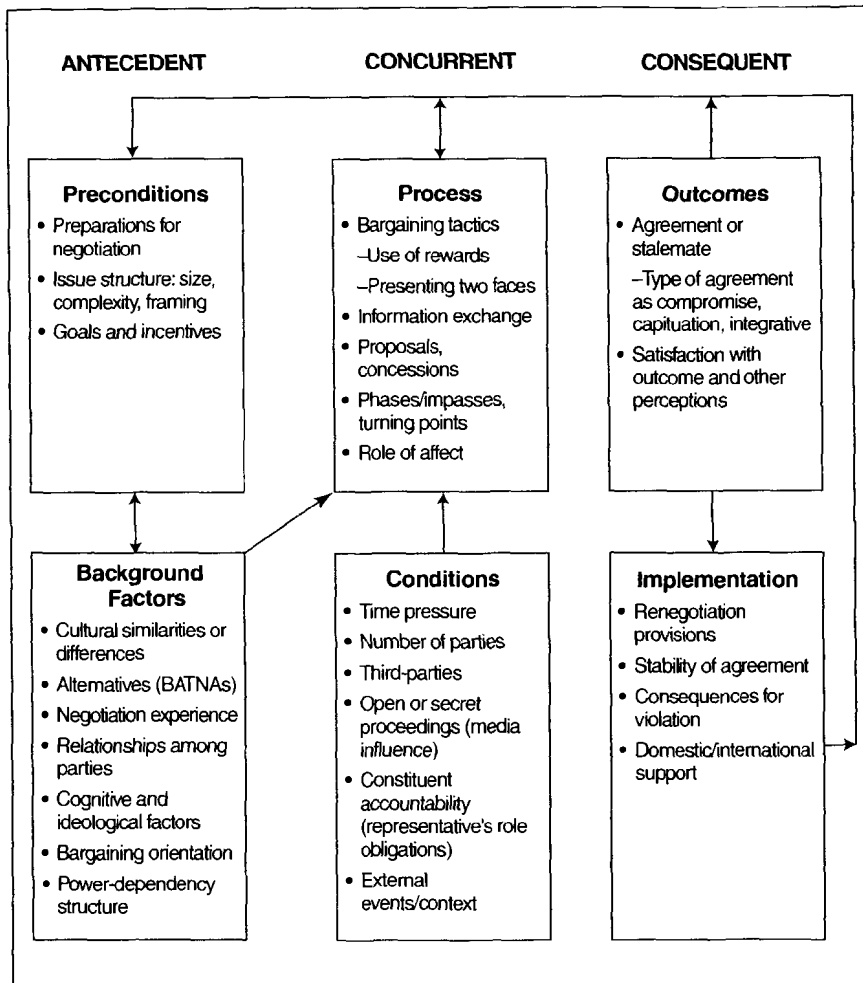
produce the smallest (e.g., .05) and largest effect sizes (e.g., .67). An outlier analysis is especially appropriate when there is a range of effect sizes as might be expected when the studies (within a conceptual category) are somewhat heterogeneous in procedures—as is the case here. By comparing the methods used in these studies (for each category) we can get a handle on the aspects of those procedures that account for the different results, leading to a more specific rendering of the conditions needed to get strong effects.

For example, representation effects may be due to the relationship between the representative and his or her constituents or validators (as hierarchical or not); the accountability effect may be stronger when the constituents also evaluate the representatives' performances and the stakes involved in such an evaluation are high; the inflexibility resulting from prenegotiation strategizing (versus studying the issues) may be due to differences in team cohesion (cohesive study groups may be just as inflexible as strategy groups); visibility or audience effects decrease flexibility when negotiators fear a loss of face, and the effects obtained for the other's strategy (whether he or she exhibits tough or soft behavior) may be due to the clarity of his or her intentions, i.e., when the tough opponent is understood to be exploitative and the soft one cooperative, and this takes time to discern (see Druckman 1994 for more outlier analyses).

Internal and external validity. Although reasonably strong on *internal validity* criteria, defined as clarity of causal inferences, the experiments used in the meta-analysis may be weak on *external validity*, defined as relevance to other, more complex negotiating situations. Rather than manipulating one or a few variables at a time, while keeping others constant, many actual negotiating situations consist of a combination or "package" of variables that operate together. This is more like the way frameworks (rather than experiments) are constructed. A good example is the framework developed originally by Sawyer and Guetzkow (1965). Shown in figure 2, this framework connects preconditions and background factors (antecedent variables) with processes and conditions (concomitant variables), and outcomes, including provisions for implementing agreements (consequences of negotiation). Relationships among the variables are both linear (from preconditions to processes to outcomes) and recursive (from outcomes back to preconditions). The factors in the boxes are the variables that have received attention in the empirical research literature. It has been used as an architecture for organizing research literature and for conceptualizing the various facets of complex cases.

I got to know this framework well. I was asked, in 1971, by the Academy for Educational Development, to update the review provided by Sawyer and Guetzkow (1965). My "update," which later became a Sage international studies monograph (Druckman 1973), was organized in terms of an adaptation of the framework shown in figure 2. This experience increased my appreciation

Figure 2. A Framework of Influences and Processes of Negotiation



for **synthesis**, for piecing together the many parts of negotiating situations and processes. I argued that it is possible to develop a broad perspective on negotiation without forfeiting analytical rigor, that experimental findings contribute to and are informed by integrative frameworks. A similar framework was also used to organize the topics treated in my edited book on negotiation published by Sage (Druckman 1977). And it helped me to organize complex multilateral negotiations that took place during the 1970s in my role as a consultant to the U.S. delegation to the Mutual and Balanced Force Reduction talks (MBFR). (See also Bonham 1971 and Ramberg 1978 for similar case applications.)⁶

I am now going to **flash forward again** to the 1990s and Vienna, Austria:

Situational levers. With the idea of synthesis in mind, I decided to develop a different research strategy, one that emphasized external validity while retaining the key benefit of experimental design, which is interpretability of findings. This work was done at the International Institute for Applied Systems Analysis (IIASA) an international organization housed in Maria Theresa's summer palace near Vienna, Austria. Unlike Maria Theresa, who was governing a nation, and Johann Strauss, whose waltzes were played at the palace, I wondered whether I could differentiate the stages of a negotiation process during which many of the variables in the framework shown in figure 2 had their *primary* impacts on negotiating decisions. I was also motivated in this work by the practical goal of identifying those aspects of the negotiating situation that could be controlled (for positive impacts on the process) by the negotiators themselves. Here is what I came up with.

The variables that were embedded within stage scenarios of a simulation of multilateral environmental talks are shown in table 3. There were roughly six variables per stage of a four-stage process, referred to as prenegotiation, setting the stage, the give-and-take, and an endgame. The experimental feature of the design is retained in comparisons between alternative scenarios: for example, a set of variables geared toward producing flexibility (negotiate in private) compared with the same set geared toward inflexibility (negotiate in public) and with a set of variables geared toward flexibility in the first three stages and toward inflexibility in the endgame. The participants were environmental scientists and diplomats who played the roles of conference delegates and made decisions about their delegation's positions on the issues in each stage. We also asked about perceptions of the situation and tactics. (They did not actually bargain.)

Table 3. Variables by Stages of Negotiation

Stage	Variables
<i>Prerenegotiation Planning</i>	Negotiating positions linked or not linked to political ideologies
	Primary delegation representative or advisor to the delegation
	Strategizing or studying the issues
	Familiar or unfamiliar with other's positions
	Amiable or antagonistic relations among parties
<i>Setting the Stage*</i>	Central or peripheral locations
	Formal or informal sessions
	Seeking comprehensive or partial agreements
	Power symmetries or asymmetries between parties
<i>Give-and -Take**</i>	Salient solutions can or cannot be found
	Many or few concessions made by other parties
	Innovative or non-innovative conference leadership
	Heavy or light media coverage
<i>The Endgame***</i>	Deadline or no deadline
	Attractive or unattractive alternatives
	Mediator-suggested solutions or not

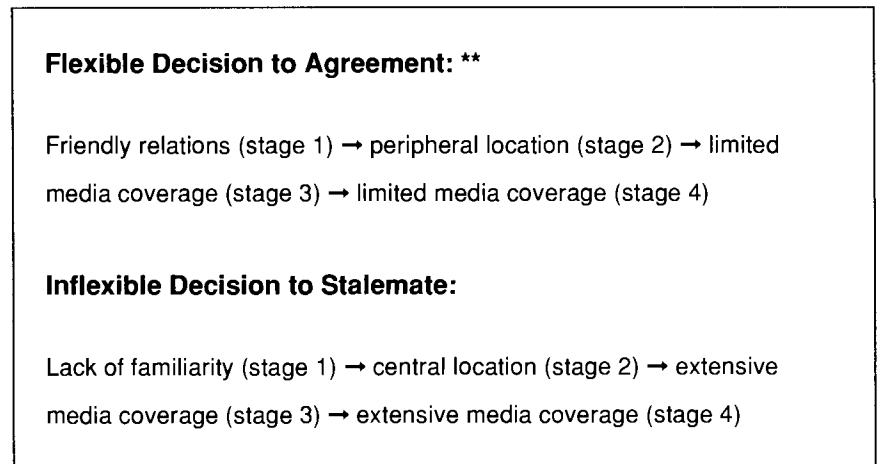
* The variables of representation, familiarity, and relationship are repeated in this stage

** The relationship variable is repeated in this stage

*** The variables of salient solutions and media coverage are repeated in this stage

In order to ascertain the relative importance of the variables within each stage, we used a pair-comparisons procedure similar in some ways to ANOVA for factorial designs. Role-players were asked to compare each variable with each of the other variables contained within the stage scenarios in terms of which produced more or less flexibility. The procedure produces weights for each variable in each stage. The result of this work was trajectories of variables toward agreement and toward impasse. The trajectories highlight the variable with the strongest weight in each of the four negotiation stages. The trajectories for the scientists are shown in figure 3; the paths for the diplomats are shown in figure 4. These variables are referred to as **situational levers** of negotiating flexibility. Although being a group representative did not reduce flexibility, being an advisor without the constraints of representation did increase flexibility in the first stage. (Details of this work are discussed in Druckman 1993 and Druckman 1995.)

Figure 3. Situational Levers: Trajectories toward Agreement or Stalemate*



* Environmental scientists' sample

** Variables with the highest weighting in each stage of negotiation

Figure 4. Situational Levers: Trajectories toward Agreement or Stalemate*

<p>Flexible Decision to Agreement: **</p> <p>Being a delegate advisor and having friendly relations (stage 1) → being a delegate advisor and being at a power disadvantage (stage 2) → limited media coverage (stage 3) → limited media coverage and unattractive BATNAs (stage 4)</p> <p>Inflexible Decision to Stalemate:</p> <p>Strategy preparation (stage 1) → having a power advantage (stage 2) → wide media coverage (stage 3) → attractive BATNAs and no salient options (stage 4)</p>

* Diplomats' sample

** Variables with the highest weighting in each stage of negotiation

A replication study, conducted with my son (Druckman and Druckman 1996), in which role-players actually bargained, showed that the most important variables were location of the talks (central or peripheral location) and media coverage (extensive or limited). Simply stated, negotiators are more flexible, in terms both of achieving compromise and integrative agreements, in private talks. Note here that the **visibility** variable is quite strong in contrast to the weak audience effect sizes obtained in the meta-analysis discussed above (see table 1).

Another question of interest is, which produces stronger effect sizes, combined factorial-design experiments or the combined variables embedded in simulation scenarios? The combined effect sizes for the experiments of .31 on the compromising measure compares to .59 (combined samples) for the simulation, a huge difference of .28. The stage-by-stage comparisons (for only those variables included in each stage) also showed large differences between the simulation and meta-analytic results (differences in of .12, .12, .28, and .21 respectively as shown in table 4). Thus, the combined variables embedded in the simulation packages, which are presumably more similar to actual negotia-

tions, had stronger effects on negotiating behavior than did the cumulated experiments that manipulated these variables one or two at a time.

Table 4. Simulation vs. Meta-Analysis Effect Sizes by Stage

Stage	Simulation	Meta-Analysis	Difference
Pre-negotiation preparation	.37	.25*	.12
Setting the stage	.43	.31**	.12
Give and take	.59	.31***	.28
Endgame	.53	.32****	.21

* based on 32 experiments that manipulated the variables included in the first simulation stage

** based on 25 experiments that manipulated the variables included in the second simulation stage

*** based on 12 experiments that manipulated the variables included in the third simulation stage

**** based on 12 experiments that manipulated the variables included in the fourth simulation stage

Adapted from Druckman (1993)

What is IIASA? This is an international research organization supported by roughly 16 member governments, including the United States (through the American Academy of Arts and Sciences). Founded in 1972, IIASA was conceived as a scientific communication link between the West and East. Its first director was Howard Raiffa, author of the well-known book, *The Art and Science of Negotiation* (1982). Through the years the institute has focused its research agenda primarily on environmental issues. The research is conducted by teams of scientists from a variety of disciplines and from each of the member countries. Graduate students from around the world have an opportunity to participate in the Institute's projects through the Young Scientists Support Program. From 1990 to 1993, I was a member of the research team on the Program on International Negotiation (PIN). Other participants in the program during that period included I. William Zartman (U.S.), Victor Kremenyuk (Russia), Guy Olivier Faure (France), Gunnar Sjostedt (Sweden), Jeffrey Rubin (U.S.), Winfried Lang (Austria), and Bert Spector (U.S.).

In conclusion

Following are some of the insights suggested by the research discussed in this section:

1. The critical experiment is an illusion. Confidence in analytical knowledge comes from the cumulation of experiments done at different times and in different places. The experimental enterprise is self-sustaining and generative with ideas for new experiments coming from previous results and from the examination of outliers in a meta-analysis.
2. The impact of experimental variables (as indicated by effect size) is likely to **underestimate** their influence in nonlaboratory settings where they combine with other variables.
3. Contrary to Blake and Mouton's claim, group representation effects are generally modest when compared to other aspects of the negotiating situation, such as orientations to the negotiating task or pre-negotiation experience. The research findings argue against single-factor explanations of negotiating behavior.
4. The strong situational impacts, shown in the negotiation experiments, support Lewin's "principle of contemporaneity." This refers to peoples' reactions to the psychological field as it is perceived at the moment (Lewin 1951).

More generally, the empirical evidence on bargaining accumulated through the years, by myself and others, supports my view about the powerful impact of situations on behavior. This view is enunciated most clearly in my 1999 Leonard Davis Institute (at the Hebrew University) Occasional Paper titled "The Role of the Leader in International Relations: Challenging Person-Centered Analyses of Political Behavior." In this regard, see also my review article on "The Influence of the Situation in Inter-party Conflict," published in a 1971 issue of the *Journal of Conflict Resolution*. This paper is a forerunner to the work on situational levers and the meta-analysis discussed in this section.

From Research to Application

It may appear, at least at first blush, that the research I just reported has little practical relevance. Quite to the contrary, in this section, I will demonstrate just how relevant these sorts of findings can be, first with regard to training and then on computer diagnosis.

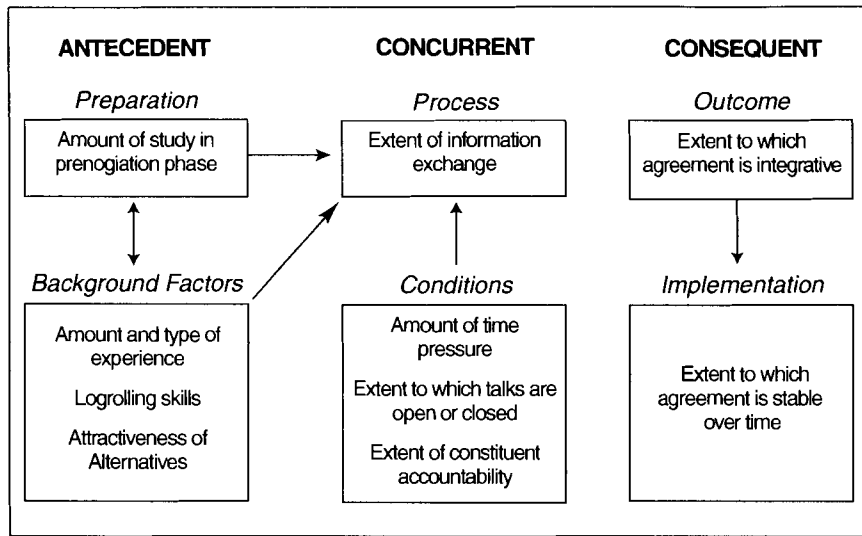
Utilizing findings in training programs. Supported by a United States Institute of Peace (USIP) grant to ICAR, and in keeping with the USIP mission to bridge theory and practice, we developed a framework and process for utilizing findings from research in training programs. To date the training has been done on an annual basis with United Nations delegates through the Institute of World Affairs, at a business school in Cochin, India through the Parisian Ecole Nationale Des Ponts et Chaussees, with practitioners in Lima, Peru, through the NGO IPRECON, at Bilkent University in Ankara Turkey, at Erasmus University in Rotterdam, the Netherlands, through the International Institute for Mediation and Conflict Resolution, and at ICAR. In addition, we are working with French colleagues to extend the narratives to incorporate themes found in the European literature on negotiation. (See Druckman and Robinson 1998, for a description of the approach, its implementation, and its evaluation.)

After completing a detailed review of the empirical literature on bargaining and negotiation, we grouped the studies—many of which appear in the meta-analysis—under 12 thematic categories. Our aim was to capture the key findings or insights from the studies and present them in an essay or **narrative** form. Each narrative is a two-page statement followed by four discussion questions and containing footnoted citations: the themes are **emotions** in negotiation, the role of **culture** in negotiation, effects of **experience**, getting **integrative agreements**, **impact of relationships on negotiation**, **information exchange**, the use of **alternatives**, **time pressure**, **third-party** effects, presenting **two faces**, the use of **rewards**, and constraints on **flexibility**. For the integrative agreements narrative, we also present a framework that depicts an "anatomy of integrative agreements" as shown in figure 5.^{7, 8}

Emphasized in the narratives are counterintuitive findings such as the following:

- (a) Quick agreements may be bad agreements. They often occur before bargainers have an opportunity to be sure they are working with all the relevant information. The result may be a kind of "winner's curse," where a bargainer thinks he or she got a desired outcome only to realize that a better outcome could have occurred.

Figure 5. Anatomy of Integrative Bargaining



- (b) Extensive information searches during negotiation may reveal incompatibilities of interest that serve to escalate rather than settle the conflict.
- (c) Attractive alternatives usually increase bargainers' power, but they also encourage them to focus only on their own interests and to regard their opponents as having even more attractive alternatives. These are the conditions for suboptimal agreements.
- (d) Tough postures may be advantageous when followed by softer behavior; cooperation is valued more in a competitive context.
- (e) Anger may be helpful if it is used to emphasize deeply felt interests and is directed at the task rather than the other bargainer.
- (f) Friendship or good relations may lead to suboptimal agreements because bargainers concede too much too soon.
- (g) While national culture shapes behavior, it may be a less-important influence on the behavior of international negotiators who share a professional subculture.

These and other findings have implications also for practice in the form of "discourage quick agreements by avoiding too-rapid concession exchanges." The findings, summarized in the narratives, were applied in role-play exercises, including the analysis of actual cases. In one exercise, we asked participants to take the role of **analyst**. In another, they played the role of **strategist**. And in a

third, they **designed** training exercises. The analyst and strategist roles were implemented in relation to a particular case, such as the 1979 "Korean Joggers" negotiation or Camp David. The cases were taken from either the Pew case study series or the Johns Hopkins Foreign Policy Institute series. Participants were divided into small "consulting" teams, each given a different case. The teams wrote reports for each of the three role assignments. The reports were content analyzed for indicators of learning. Additional information about what was learned came from postexercise self-report questionnaires.

On evaluation. In one workshop with UN delegates, we conducted an "experiment." Some groups learned the concepts through the narratives; other groups were given only general themes on each topic. The narrative teams showed more complex applications of the concepts in the written reports and in the oral debriefings than did the control teams. They also perceived that the exercises contributed more to their learning and were more satisfied with their products than were the control teams (see table 5).

In another workshop, this time with graduate students, we attempted to increase the learning benefits by giving participants a deeper experience with the literature. They read a selection of the original articles and reported on them. These participants showed an even more sophisticated understanding of the concepts than those in the earlier workshop; they wrote more complex essays in each role (see table 5).

In a third workshop, again with UN participants, the three role enactments were separated in time with the analyst and strategist roles occurring together in May in New York City and the designer role in Salisbury, Conn., in June. As shown in table 5, their performance was similar to the narrative groups in the first workshop except that they thought they learned more (expressed in self-reports) than their performance suggested. This may reflect an "illusion of comprehension."

Table 5. Training Performance Comparisons

a. Narratives vs. Controls	
<i>Written Products: Means</i>	
Narrative groups	1.8
Control groups	1.3
<i>Oral Presentations: Means</i>	
Narrative groups	2.3
Control groups	1.3
<i>Conclusion: The narrative groups performed better than the control groups.</i>	

Table 5, continued

b. Workshop Comparisons

	<i>Means</i>
Workshop 1	1.8
Workshop 2	2.4
Workshop 3	1.6

Conclusion: Role-players in workshop 2 did best.

c. Role Comparisons

	<i>Means</i>
Analyst role	1.9
Strategist role	1.8
Designer role	1.2

Conclusion: Participants performed better in the analyst and strategist roles than in the designer role.

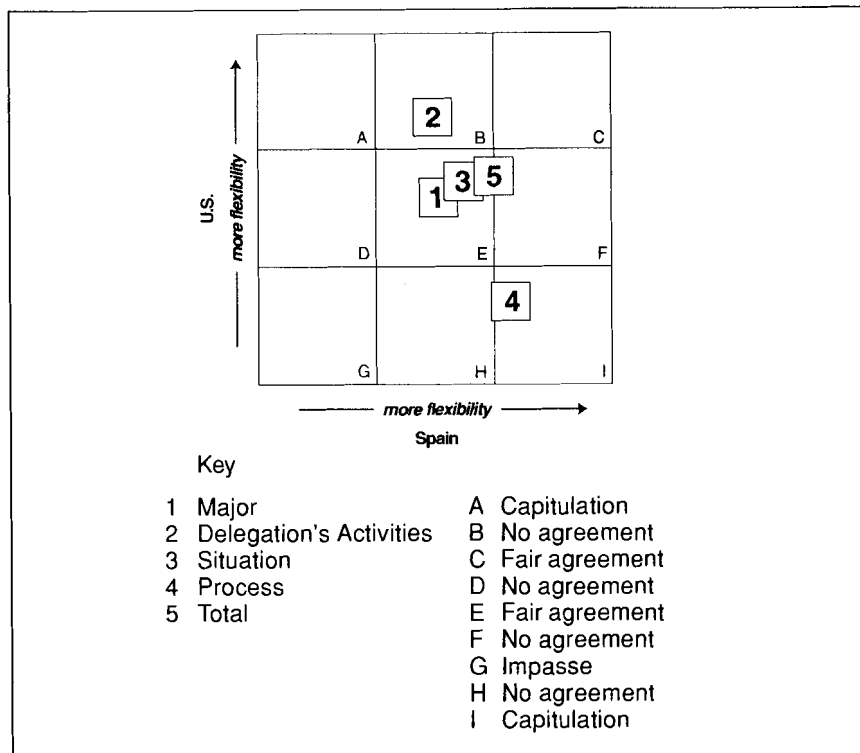
Interestingly, long-term impacts were apparent for the participants in these workshops. Most indicated, in three-month follow-ups, that they (a) developed an interest in the literature; (b) would consult literature in relevant situations (although few of the UN participants actually consulted the literature); and (c) recalled issues raised in the workshop. Of the three roles, the designer role was seen as most difficult to execute. Overall, the experience proved beneficial, especially when augmented by reviews of the journal literature and frameworks. The narratives contributed to learning the concepts and the participants used the material, at least to some extent, in their work environments. Analyses of the evaluations of more recent workshops remain to be done.

Diagnosing flexibility. Another application based on the research involves computer software. With the support of the United States Institute of Peace, we developed a program that diagnoses the flexibility of the negotiating parties. It presents the diagnosis on a two-dimensional grid divided into nine cells as shown in figure 6 for the case of base-rights negotiations between Spain and the United States. (Other applications are discussed in Druckman 1995.) Based on answers to questions in each of several areas of negotiation, the program calculates the extent of flexibility for each party and also projects a possible outcome if the talks were to conclude at that point. The questions represent the variables investigated in the empirical research and the meta-analysis discussed

above. It has been used by several of my students to diagnose cases for their term papers in the class on Negotiations and by Lynn Wagner in conjunction with her dissertation research at Johns Hopkins University. It has several features, including the following.

- a. It calculates flexibility for each aspect of the Sawyer-Guetzkow framework discussed above: issues, delegations, situation, process, and outcomes; for example, a particular case can be stalled on process but not on issues and, thus, be diagnosed differently.
- b. It can be used for strategy development by answering the questions in different ways and comparing impacts.
- c. It can chart progress by answering the questions at each of several junctures during the process.
- d. It can be used for comparative analysis that facilitates the development of typologies.
- e. Validity can be assessed by comparing projected and actual outcomes from past cases (see Druckman 1993a for an assessment).
- f. An *impasse window* can provide information about how impasses were resolved in similar cases in order to stimulate ideas for resolving the impasse in the current case.
- g. Users can develop their own questions and weights in the context of virtually any kind of negotiation, domestic or international.

Figure 6. U.S. Base Rights in Spain



NOTE: The figure is read as follows. Flexibility for the United States increases as one moves from the bottom to the top. Flexibility for Spain increases as one moves from left to right. The diagnoses of flexibility were made separately for the major issue in the talks as well as for the factors of delegations' activities, situation, and process. "Total" refers to a diagnosis made across all of the factors. The diagnostic results are indicated by the placement of the numbered factors in the cells. The second factor, delegations' activities, is in cell B, which, according to the key, indicates no agreement. The fourth factor, process, is found in cell I, indicating capitulation by the Spanish delegation.

From Druckman (1995)

In conclusion

Findings from laboratory research on negotiation are applicable. They are a source of insights, which are sometimes counterintuitive, that enrich analysis and suggest strategies for dealing with impasses in complex negotiating cases. The research findings are also useful for diagnosing flexibility in the various parts of a negotiating process and for projecting possible outcomes.

Models of Responsiveness

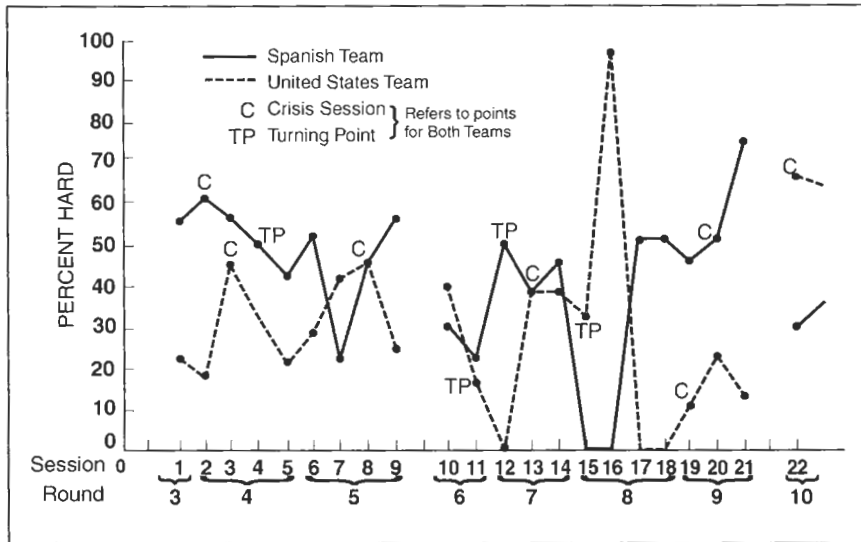
Flash back to the 1970s:

Two lines of research came together in the 1970s. One consisted of experiments on bilateral-monopoly bargaining with children done at IJR; the other was a case study analysis of cable traffic and transcripts of an official treaty negotiation between Spain and the United States in 1975-76 done at Mathtech. Featured in the experiments with children was an evaluation of the impact of the other's concession rate strategy, which was either relatively soft or tough. Among the many findings reported in two articles published in *Behavioral Science* (Druckman et al. 1972a and Druckman and Bonoma 1976), one stood out as being particularly interesting. I observed that bargainers were monitoring each other's moves similar to Coddington's (1968) cyclical expectation-evaluation-adjustment models. Bargainers were particularly sensitive to the comparison (or relative size) of each other's moves. Impasses often occurred after one bargainer noticed a gap between the concession rates: The "softer" bargainer (in the earlier phases) adjusted his or her concessions to match those made by the "harder" bargainer, especially when expectations for reciprocal concession making were disappointed.

My experience with the cable traffic at Mathtech led me to wonder, first, why there were so many impasses in what appeared to be a rather straightforward negotiation and, second, whether there were factors in the process that signaled the occurrence of these impasses. (In this negotiation, an impasse was a crisis in the sense of one or another party walking out.) I began informally to chart trends in the rhetoric used by the respective delegations and discovered a particular pattern not unlike that discovered in the experiments with children. I then developed a content analysis coding system for more systematic work. By carefully coding the discussions in the transcripts, I was able to calculate correlations among various indicators in the trends. As shown in figure 7, the U.S. delegation often adjusted its moves toward Spain's harder posture following a gap between them. This adjustment led to an impasse similar to that found in the experiments (Druckman 1986).

Given the difficulties involved in these talks I could understand why, at the congressional hearings, Ambassador McCloskey (head of the U.S. delegation) said: "I would move heaven and earth to get this treaty ratified." The treaty was being challenged by Congresswoman Bella Abzug who argued against it on the basis of Spain's record of human-rights violations. Sitting directly in front of me, she wore a hat that blocked my vision of the dais at which the congressional committee sat and where the delegation made its case. But I could see McCloskey's sigh of relief when the five-year Treaty of Friendship and Cooperation was ratified without the need to "move heaven and earth."

Figure 7. Trends Across Rounds in Spanish and American Teams' Negotiating Behavior



What was **Mathtech**? This was a division of Mathematica, Inc., a company founded by several Princeton University professors in the early 1960s. Oskar Morgenstern, coauthor with John von Neumann of the classic 1944 book, *Game Theory and Economic Behavior*, was chairman of the board. Its first contract in 1961–62 was to provide an intellectual foundation for the new Arms Control and Disarmament Agency. They found it in game theory. We were about a dozen social scientists working at Mathtech's "think tank," called the Analytical Support Center, from 1975–1982. Some of my projects were intended to support the U.S. delegations to various negotiations such as base rights and conventional troop reductions. Other projects included the development of a framework for studying political mobility with application to the case of Brazilian regimes and a three-year project on the meaning and functions of nonverbal communication which appeared as a book in 1982.

This empirical evidence, supporting the Coddington cycle, became known as "threshold-adjustment" because the adjustment followed a noticeable **difference** which could be regarded as a threshold. At this time I became particularly interested in studying the way bargainers process information about

the other's moves. Referred to as the **monitoring** function in negotiation, I developed alternative models and conducted experiments that sought relationships among bargaining moves, nonverbal expressions, and (even) neurophysiological indicators of information processing (Druckman et al. 1983). My most important paper on this subject is the one on the boundary-role dilemma appearing in a 1977 issue of the *Journal of Conflict Resolution* (JCR). In that paper I developed two information-processing models, one referred to as "**the negotiator as bargainer**" (responding to the other side) and the other as "**the negotiator as representative**" (responding to own side's preferences). Taken together, these models were a predecessor of the popular two-level game concept in international relations (Putnam 1988).

This phenomenon is also similar to a model defined by Stoll and McAndrew (1986) as "comparative reciprocity." They found some support for

Table 6. The Negotiation Cases

Case	Period	Parties	Types of Data	No. Rounds**
<i>Base Rights</i>	1975–76	Spain United States	BPA on rhetoric*	21
<i>SALT I & II</i>	1969–79	Soviet Union United States	Weighted concessions	15
<i>MBFR***</i>	1974–77	NATO Warsaw Pact	BPA on rhetoric	8
<i>Postwar (WWII) Disarmament</i>	1946–60	Soviet Union United States	Weighted concession	22
<i>Nuclear Test Ban, restricted period</i>	1958–63	Soviet Union United States	Weighted concession	14
<i>Nuclear Test Ban, restricted period</i>	1962–63	Soviet Union United States United Kingdom	BPA on rhetoric	15
<i>Nuclear Test Ban II, restricted period</i>	1962–63	Soviet Union United States	BPA on rhetoric	15

* Bargaining process analysis coding system

** Refers to the number of rounds or sessions used in the analysis

*** Mutual and Balanced Force Reductions negotiations (three-year period analyzed)

Adapted from Druckman and Harris (1990) [see article for references]

this model of reciprocity (compared to a simpler tit-for-tat and a trend-reciprocity model) in their analysis of SALT I proposals accumulated, organized, and presented by Jensen in his 1988 book. (Coincidentally, their paper appeared in the same issue of the JCR in which my base-rights negotiation paper, showing a similar phenomenon, appeared.) I decided to evaluate the robustness or generality of the model—compared to nine other models of responsiveness—by examining the moves made (concessions or rhetoric) in eight cases of international negotiation, mostly on arms control issues, shown in table 6.

Correlations were computed between moves made by the other and own sides according to each of the models shown in table 7: directional, trend, and

Table 7. Predictions for Three Models of Reciprocity

Directional Reciprocity Models		
<i>B's Action in Previous Round</i>	<i>Cooperative</i>	<i>Inverse</i>
Concession	Concession	Retraction
Neutral	Neutral	Neutral
Retraction	Retraction	Concession
Trend Reciprocity Models		
<i>B's Change in Action From Round t-2 to t-1</i>	<i>Cooperative</i>	<i>Inverse</i>
Increase in concession	Increase in concession	Decrease in concession
No change	No change	No change
Decrease in concession	Decrease in concession	Increase in concession
Comparative Reciprocity Models		
<i>B's Actions in Previous Round compared to A</i>	<i>Cooperative</i>	<i>Inverse</i>
Higher concession score	Increase in concession	Decrease in concession
Equal concession score	No change	No change
Lower concession score	Decrease in concession	Increase in concession

Adapted from Stoll and McAndrew (1986)

Table 8. Fit of Responsiveness Models

Negotiation	Party	TYPES OF MODELS													
		Directional					Trend					Comparative			
		I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV
Base Rights	Spain	-.22	.17	.12	.22	.10	-.51 _b	.48 _b	.40 _b	.50 _b		.63 _y	.52 _y	.67 _r	.99 _y
	United States	.29	.35	.33	.44 _a	.66 _y	-.47 _a	.19	.32	.30		.37	.44 _a	.39	.42
SALT I & II	Soviet Union	-.17	-.15	.12	-.22	-.02	-.69 _b	-.12	-.56	-.36	-.56	.69 _b	.57	.60	.62 _a
	United States	.40	.40	.30	.34	.00	-.55	-.12	-.56	-.36	-.56	-.33	-.49	-.65 _a	-.58
MBFR	East	-.10	-.28	-.58	-.38	-.44	.23	-.18	.34	-.37 _a	.05	.49 _b	.19 _y	.32 _a	.30 _b
	West	-.07	-.55	-.12	-.56	-.36	-.57 _y	.03	.17	.01	.18	.47 _b	.35 _c	.33	.35 _a
Postwar Disarmament	Soviet Union	-.08	.23	.18	.34	.05	-.34	.45 _a	-.19	.23	.19	.04	.08	.14	.30
	United States	.57 _y	.03	.17	.01	.18	-.30	.25	.13	.43	.41	.50 _a	.47 _a	.49 _a	.55 _b
Nuclear Test Ban (extended period)	Soviet Union	-.53 _b	-.34	-.19	.23	.19	.18	-.38	-.03	.12	-.14	.25	.12	.07	.07
	United States	-.30	.25	.13	.43	.41	.34	.31	.18	.31	-.23	.67 _r	.66 _r	.73 _y	.72 _a
Nuclear Test Ban I (restricted period)	Soviet Union	.03	.18	-.38	-.03	.12	.11	-.46 _a	-.03	.08	-.28	.21	.24	.15	.26
	U.S. & U.K.	.22	.31	-.18	.31	-.23	.43	.29	.48 _a	-.34	.47 _a	.70 _r	.73 _r	.71 _r	.73 _a
Nuclear Test Ban II (restricted period)	Soviet Union	-.08	.11	-.46 _a	-.03	.08	.49 _a	-.29	.48 _a	-.34	.47 _a	.70 _r	.73 _r	.71 _r	.73 _a
	United States	.43	.49 _a	-.29	.48 _a	-.34	.47 _a	.70 _r	.73 _r	.71 _r	.73 _a				

NOTE: This table shows the correlations of various models with the data. The ten models used are of three major types: Directional, Trend, and Comparative. The five Trend models are I-Trend, II-Lagged Trend (Lag), III-0.3 Lag, 0.7 Trend (additive), IV-0.3 Lag, 0.7 Trend (multiplicative), and V-Equal weights for Lag and Trend. The four Comparative models are I-Comparative only, II-Comparative & Lagged Trend (unweighted) and IV-Comparative & Lagged Trend (weighted). Significant positive correlations are indicated by bold type and dark shading, whereas significant inverse correlations are indicated by italics and light shading. The degree of significance is indicated by three symbols, α ($p < .10$), β ($p < .05$) or γ ($p < .01$)

From Druckman and Harris (1990)

comparative. For example, for the comparative model, the correlation was calculated between the size of the difference in concessions made **between** the parties in the previous round ($t - 1$) and the difference between concessions made **within** a party in the next round ($t \rightarrow t + 1$). They were also computed for a number of variants on those models, such as various lags, weighting more recent moves more strongly than earlier moves, and combinations of the trend and comparative models. The results are shown in table 8.

The largest number of significant correlations, across the cases, occur for the comparative reciprocity model (see comparative model I in table 8). In most cases and for most parties, bargainers adjusted their moves following a **comparison** of the moves made by self and other in the preceding round. They reacted to the immediately previous round of paired-moves rather than to a sequence of moves made over time. In fact, the comparative model is even better than various combinations of trend and comparative reciprocity (compare the significant correlations among the comparative models I, II, III, and IV in table 8). Further, the same pattern appeared in an analysis of the Turkish-language transcripts of the Lausanne negotiations of 1921–22 following World War I (Beriker and Druckman 1991). Similar results were obtained by Patchen and Bogumil (1995) in their analysis of cooperative and competitive interactions over several years of Soviet-U.S. interactions. It seems as though there is a strong desire for *fairness* or for *reduced complexity* by the bargainers. Fairness relates to a show of good faith in the process. Reduced complexity refers to predictability in the process, in the sense of maintaining synchrony or an equilibrium. This is an issue for further research.

In conclusion

Bargainers respond not by reciprocating the previous move (as tit-for-tat) or from monitoring the trend of moves made by bargaining opponents through time but to the **difference** between moves (construed as rhetoric, concessions, or proposals) made by self and other in the immediately previous round. This form of response, referred to as comparative reciprocity or “threshold-adjustment,” is quite robust, manifesting itself in a variety of negotiations and in international interactions over a period of several years.

These findings support Coddington’s (1968) model of adjustments to comparisons in bargaining moves as well as Lewin’s (1951) “principle of contemporaneity” in the sense that bargainers respond to the immediately previous interaction. It is also similar to the kind of security dilemma described by Burton, Groom, Mitchell, and De Reuck as follows:

Most parties to a conflict gravitate to a position of strength as their ultimate guarantee of security. They may, however, be prepared to negotiate from this position of strength. But one side’s position of strength is another side’s position of inferiority in a conflict situation. The latter, therefore, seeks to remedy its position of inferiority by increasing its strength and thereby frightens the first party which tries to increase its strength and security, and so the spiral is given another twist (1974: 82).

An Interplay between Values and Interests

Flash back again: A series of experiments, done in the 1970s at IJR, was stimulated by writings about the interplay between values and interests in the literature on the sociology of conflict and the realization that research on negotiation largely ignored values. Coser's (1956) elaboration of Simmel's propositions (and other writings on the sociology of conflict) provided the impetus for this research. One proposition, in particular, stimulated the initial experiments:

Conflicts in which participants feel that they are merely the representatives of collectivities and groups, fighting not for self but for the ideals of the group they represent, are likely to be more radical and merciless than those that are fought for personal reasons. Elimination of the personal element tends to make the conflict sharper, in the absence of modifying elements which personal factors would normally introduce (Coser 1956: 118).

The methodology consisted of embedding experiments in political decision-making simulation scenarios, including simulated city councils (Zechmeister and Druckman 1973), simulated population and prison services policy-making committees (Druckman et al. 1977; Love et al. 1983), simulated ecumenical councils (Druckman et al. 1974), and simulated intranational political conflict (Druckman et al. 1988). The results of these experiments repeatedly confirmed the proposition that conflicts intensified when interests or positions are linked to values or ideologies. This is another robust finding.

A typical experiment was the one I conducted at ICAR with Broome and Korper. An intranational conflict on the island of Cygnus was the scenario in which three experimental conditions were compared: an embedded (interests derive from values), de-linked (interests separated from values), and facilitated (interests derive from values with a simulated workshop experience) condition. We found the de-linked and facilitation conditions were better than the embedded condition on outcomes, but the facilitation condition produced the most cooperation in the negotiation process. In a followup experiment, conducted also at ICAR with Broome, we found that the positive effects of facilitation on the process (versus embedded and de-linked) were due both to the increased familiarity and liking that resulted from the interactions. These findings suggested alternative "models" of the sequence of situational, perceptual, process, and outcome effects that resulted from the different types of experimental conditions—namely, the different sequences precipitated by the facilitation and embedded conditions, on the one hand, and by the de-linked condition on the other. (See Druckman et al. 1988, and Druckman and Broome 1991, for details.)

These experiments were designed to provide evidence for the role of values in negotiations over conflicting interests. Another perspective on the interplay between values and interests is to consider them as alternative sources of conflict in opposition. Many political decisions reflect a balancing of a decision maker's interests and values, the one being more important than the other depending on the circumstance. We explored some circumstances in the context of simulated ecumenical councils in Houston, Texas.⁹ The "council" was composed of "representatives" from each of several religious denominations, ranging from fundamental (Southern Baptist) to liberal (Unitarian) values. They were responsible for allocating resources to various programs in the community. Funding decisions resulted from winning coalitions (alliances of denominations) that often required "compromises" of theological values. These data were used to evaluate a model of coalition formation based on the relative weight given to a decision maker's values (or ideologies) and (material) interests. We found that the model that most accurately captured the decisions was a mixed model in which interests were weighted slightly more strongly than values. While attempting to strike a balance between their values and interests, decision makers funded projects that reflected their interests (for example, increased revenue) more than their values (for example, the act of praying with members of other denominations). These results suggested the unexpected outcome that interests trump values on issues that, in essence, define the religious groups represented in the simulation. This research is discussed in some detail in Druckman et al. (1974) and in Krause et al. (1976).

Flash forward to the 1990s: The earlier experimental research on values and interests was limited to exploring some variants on Coser's proposition stated above. A number of other propositions from the literature on the sociology of conflict depict the way that intergroup dynamics polarize and depolarize conflicts, and are presented in Druckman and Zechmeister (1973). These processes are more difficult to observe in laboratory settings. An opportunity to explore the set of propositions was presented in the form of a case study of the negotiations that occurred between the Philippines' Aquino regime and the National Democratic Front (NDF) in 1986. This case was analyzed as part of a larger project on negotiating internal conflicts sponsored by the Johns Hopkins School of Advanced International Studies and initiated by a 1990 conference. (The complete set of cases is presented in Zartman 1995.) Following is an illustration of the way the propositions are superimposed on the case for analysis. (See Druckman and Green 1995, for more details.)

Proposition 1: *When contending positions are derived explicitly from opposed ideologies, the conflict will be more intense than when the link is not explicit.*

Case snapshot: As in the experiments, the contending parties (the NDF and the government) were divided and polarized by fundamental differences on the meaning of social change, which were linked to their bargaining positions.

Proposition 2: Differences in orientation among units within each organization or group will result in a less-intense conflict between the groups than when units within each group are homogeneous in orientation.

Case snapshot: The NDF's willingness to negotiate was due in large part to the emergence of a moderate wing within the party. The government's willingness to negotiate was due in no small part to the soft-liners led by President Aquino in opposition to the hard-liners led by Juan Ponce Enrile. Aquino prevailed and there was reason to think that the parties could reach an agreement. (Note the 1967 Evan and McDougall experiment on "bilateral dissensus," showing that moderates on both sides can pull their extremist teammates toward the center.)

Proposition 3: Vague principles that call attention to shared goals will provide a basis for further negotiation; they will also mask the substantive differences that must be resolved for a negotiated agreement.

Case snapshot: Senator Jose Diokno's proposal of broad principles, to which both parties could agree, encouraged face-to-face talks in a first substantive round. It did not sustain a second round where fundamental differences surfaced again on the details, leading to an impasse.

Proposition 4: Through time and repeated encounters, factions (or cadres) within the contending parties will converge on their ideological positions, producing further polarization between the parties which serves, in turn, to increase the intensity of the conflict.

Case snapshot: The alliance of moderates on both sides was eroding as the moderate wing within the government weakened in light of the unpopularity of its power-sharing proposal. With a resumption of armed struggle, the NDF leadership demanded a return to ideological unity and discipline within the party. Sanctions were imposed for deviation, moving the moderates in the direction of the more extreme leadership. The result was further polarization between the NDF and the government, making negotiation unlikely, actually impossible.

We observed a cyclical pattern of intensified and reduced conflict, culminating in an impasse due to the sort of within-group convergence described by the fourth proposition. Insofar as the parties' interests were overlapping (no shared interests), rather than crosscutting (shared interests on some issues), the impasse was sustained, leading to further violence which was reduced eventually through attrition caused by military confrontations. Crosscutting interests

is a structural "mechanism" that can serve to mediate conflicts, as in American legislative politics (Druckman and Zechmeister 1973). Together, the set of propositions captured the dynamic interplay between interests and values, in this case of disappointed expectations (on both sides) for a negotiated settlement.

This case study illustrates how a theoretical perspective is superimposed on the unfolding events of a particular case. It is an analytical strategy in the qualitative research tradition that has the advantages of providing an application for theoretical concepts and for viewing the case through the lens of a conceptual framework. It is not, however, an empirical evaluation of the theory (more cases are needed); nor is it a definitive explanation of the case (no control for alternative explanations). Another example of this approach is our turning-points analysis of the Intermediate Nuclear Force (INF) negotiations in the late 1980s (Druckman et al. 1991). Examples of quantitative analyses based on this approach are my study, based on negotiating stages, of the U.S.-Spain base-rights talks (Druckman 1986) and our quasi-experimental evaluation of mediation (versus a hurting stalemate) in the conflict over Nagorno-Karabakh (Mooradian and Druckman 1999). More inductive approaches to analysis in the qualitative tradition are illustrated by two lessons-learned studies conducted on negotiation cases for the U.S. Foreign Service Institute. One compared four very different cases: the Panama Canal, the Falklands Islands, Zimbabwe independence, and Cyprus (Druckman 1986a). The other compared three similar cases of base-rights talks between the United States and Spain, Greece, and the Philippines (Druckman 1990). Taken together the two analyses produced a number of similar lessons as well as lessons unique to their particular political contexts.¹⁰ I turn next, in the two sections to follow, to comparative cases studies involving large numbers of cases.

In conclusion

Conflict intensifies when interests are linked to (or shown to derive from) contending values or ideologies. This is a robust finding obtained in various experimental simulations and confirming Coser's proposition. Through time and repeated interactions, however, ideological differences between groups become smaller (when moderates on both sides gain influence) or larger (when moderates move closer to their more extreme factions in each group). These cycles of depolarization and polarization of conflict are influenced by interventions (facilitation, formulas) and by structures (defining the competitive unit in an organization or political system, crosscutting interests).

Added insights into the dynamics of conflict are provided from attempts to superimpose theoretical or conceptual frameworks, such as the interplay between values and interests, on the details of negotiation cases.

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