

Working Paper

A Comparative Methodology for Analyzing Negotiations

Daniel Druckman

WP-93-34

July 1993



International Institute for Applied Systems Analysis □ A-2361 Laxenburg □ Austria

Telephone: +43 2236 715210 □ Telex: 079 137 iiasa a □ Telefax: +43 2236 71313

A Comparative Methodology for Analyzing Negotiations

Daniel Druckman

WP-93-34
July 1993

Working Papers are interim reports on work of the International Institute for Applied Systems Analysis and have received only limited review. Views or opinions expressed herein do not necessarily represent those of the Institute or of its National Member Organizations. In addition, the opinions, findings, and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the Austrian Ministry of Science and Research.



International Institute for Applied Systems Analysis □ A-2361 Laxenburg □ Austria

Telephone: +43 2236 715210 □ Telex: 079 137 iiasa a □ Telefax: +43 2236 71313

Preface

Most of the lessons learned for policy makers from past international negotiations have been derived from descriptive assessments of particular cases taken one at a time. The objective of this study is to develop a truly comparative and systematic approach to negotiation analysis that will provide the capability to draw lessons from a larger and more representative data base of negotiation cases.

Structured interviews were conducted with 23 Austrian diplomats to gather information about particular international negotiation cases that they personally participated in. These interviews were coded into a taxonomy of important negotiation elements to develop a data base that describes each negotiation case as a profile of 35 key factors. These data were then analyzed systematically to derive a better understanding of the process of international negotiation and how that process leads to successful outcomes or deadlock.

One of the most important findings is the effectiveness of bilateral negotiations. They are more likely than multilateral negotiations to be characterized by successful treaties, low delegation turnover, friendly political relations, and deadlines that are met. Bilateral negotiations may be a more cost-effective alternative to participation in multilateral forums: fewer transaction costs and better outcomes.

This project was undertaken in collaboration with Prof. Gerhard Hafner, Institute for International Law and International Relations, Vienna and Dr. Paul Luif, Austrian Institute for International Affairs, Laxenburg.

The author would like to thank the Leader of the Processes of International Negotiation (PIN) Project, Bertram I. Spector, as well as the project team members, Cecilia Albin, Anna Korula, and John Rohrbaugh, for their constructive comments, suggestions and assistance in interviewing and analyzing the data.

We also wish to thank the Austrian Secretary-General for Foreign Affairs, Botschafter Dr. Wolfgang Schallenberg, for providing access to personnel in the Ministry.

Finally, we gratefully acknowledge the support of the Austrian Federal Ministry for Science and Research under Contract GZ.310.000/2-43/92. In particular, the author thanks Dr. Leopold Ziegler for his interest and encouragement.

Table of Contents

Background	1
Procedures	3
Results	8
Similarities and Dissimilarities Among the Cases	16
Implications and Next Steps	25
References	27
Appendices	30

BACKGROUND

This study is an attempt to develop a methodological approach for comparing diverse cases of international negotiations. The approach is systematic. It uses advanced statistical techniques to discover relationships among aspects of negotiation and to compare cases along common dimensions. It derives from earlier efforts to develop taxonomies of activities, behaviors, or events that serve as a basis for analysis of similarities or dissimilarities among cases.

Four studies, in particular, each on a different topic, contributed to the development of the approach. Sells (1966) used 56 social-system characteristics, organized into eight categories (objectives, value systems, personnel composition, organization, technology, physical environment, temporal characteristics), to compare various situational contexts (e.g., submarines, exploration parties, remote duty stations) to that of an extended duration spaceship mission. The most similar profiles were obtained for submarines followed by exploration parties, naval ships, and bomber crews; the least similar profiles were obtained for shipwrecks and industrial work groups. Frederiksen (1971) proposed categories for a taxonomy of activities that can be used to judge similarities among situations in terms of the behaviors they elicit. The taxonomies were intended to contribute to investigations of person-situation interactions. [Further development of situation taxonomies can be found in Fleishman and Quaintance, 1984.]

A particularly ambitious project along these lines was reported by Bloomfield and Beattie (1971). They developed a computerized model, referred to as CASCON, for depicting and comparing international crises. In its initial version, CASCON consisted of 482 factors (general statements about local conflicts) divided into three phases of a crisis. Fourteen cases were coded in terms of whether each factor tended toward or away from increased violence. With regard to international negotiation, Druckman and Iaquina (1974) devised a set of categories that could be used to code diverse cases. The categories consisted largely of variables examined in the experimental bargaining literature.

Carrying this work forward, the present analysis uses similar categories to code a set of past or recently-completed negotiations in which Austrian delegations participated.

This approach to comparing negotiations is an alternative to the more frequently-used qualitative assessments of similarities and differences among cases (e.g., Zartman, 1993; Sjöstedt, 1993). Both approaches contribute important insights about influences and processes of negotiation. The quantitative approach permits an analyst to make comparisons among numerous cases; the qualitative approach allows for in-depth understanding of particular cases. When used together, the two approaches provide both range in terms of coverage and depth in terms of understanding. The range covered by quantitative analysis of many cases also allows an investigator to explore relationships among the coded variables. Rather than to compare the cases in terms of the variables, this analysis uses the cases to compute relationships among the variables which are considered to be aspects of a negotiation. This kind of analysis contributes to a more general literature on negotiation.¹ Results obtained from both types of analyses are discussed in this working paper.

This paper is a report of progress made to date. It is organized into three parts. First, we describe the interview and coding procedures. Analytical procedures are illustrated with an earlier comparison of cases. Second, the results of the analyses are presented: relationships among the variables and case comparisons are discussed. Details on codes and results are contained in Appendices. And, third, some implications of the analyses and next steps are proposed.

¹The scientific literature on negotiation consists largely of laboratory experiments or simulations. The use of cases as "data" has the advantage of being more realistic than the experiments. It has the disadvantage of having less control over the definition and timing of variables, making it difficult to infer causation.

PROCEDURES

Data for this analysis were collected through interviews. The questions were designed to provide information about a large variety of processes and influences discussed in the research literature on negotiation. The information was then translated into coding categories for use in the statistical analyses. In this section, we describe briefly the procedures used to collect and analyze the data gathered from the interviews. The discussion is organized into four parts: the variables, the interviews, the codes, and the analysis methods.

The Variables

The variables were chosen to represent each of eight general aspects of international negotiation: its structure, the composition of delegations, bureaucratic support provided to the delegations, the issues, the negotiating situation, the process, outcomes, and external events. These categories are usually presented as elements in conceptual frameworks of negotiation (e.g., Randolph, 1966; Sawyer and Guetzkow, 1965; Druckman and Iaquina, 1974; Druckman, 1977; Kremenyuk, 1991). For some of the categories, the variables are those that have received attention in the scientific literature on negotiation. Many of them were shown in experiments to have strong effects on negotiating processes or outcomes (see Druckman, 1993). Examples include whether the negotiations were conducted in private or public (structure), whether the issues were primarily about interests or ideologies (issues), the existence of deadlines, third parties, and alternatives to a negotiated agreement (situation), studying or strategizing in prenegotiation sessions (process), comprehensiveness of the agreement (outcome), and outside influences (events). For other categories, the variables come from case studies or discussions with diplomats about their experiences (see McDonald and Bendahmane, 1990). Examples include delegation size and turnover (composition of delegation), latitude in instructions and tracking by high-level officials (bureaucratic support), packaging of issues (issues), the binding quality of the agreement (outcomes), and linkages with other negotiations (external

events). A complete listing of variables is found in Appendix A. Each of these variables was represented by a question in the interview.

The Interviews

Interviews were conducted with 23 diplomats in the Austrian Foreign, Environment, and Science and Research Ministries. The diplomats (herein referred to as respondents) were asked to report about a past or recently-concluded negotiation in which they participated in the Austrian delegation. Each interview was conducted in English, primarily by one or two members of IIASA's PIN project staff. Respondents were contacted well in advance of the appointment, were given information about the purpose and format of the interview, and told that it would last between an hour and an hour and a half. They were also informed that their responses to the questions would remain anonymous and used only for analytical purposes.²

A 14-page interview guide was developed (see Appendix B). The questions were organized in terms of the eight categories listed above. Many questions were relatively open-ended, allowing respondents to elaborate on the responses if they desired: For example, "how would you characterize the pattern of concession-making?" Some questions encouraged them to choose among alternatives: For example, "please rate each issue as being highly complex, somewhat complex, or not complex at all; on the same rating scale, how technical do you consider the issue?" Each section also included a final question that asked for "any other observations about the negotiation that you would like to make." An additional set of questions on "analytical support" was included in the guide to elicit information for a related project (Spector, 1993). Respondents' answers were written down on the spot; tape recorders were not used. The answers were translated into codes, discussed next.

²This report will be made available to all participants in the project.

The Codes

Responses to each question were coded according to categories that captured the variation in responses given by all respondents. The coding procedure translated answers to the questions into scaled variables. It consisted of three steps. First, responses given to each question by each respondent were recorded verbatim. Second, the various responses were summarized by categories that reflected the different types of answers. Some variables consisted of categorical distinctions such as "interests" or "ideology" or economic, environmental, or security negotiations. Other variables took the form of a scale that distinguished between "highly involved," "somewhat involved," "not involved." An attempt was made to ensure that the set of categories for each question reflected a relatively symmetrical distribution of responses: for example, on the number of delegations, the distribution of responses in four categories is 7, 5, 6, and 5. For some questions, however, little variation in responses was shown (a very asymmetrical distribution of responses): for example, all cases were held in a central rather than peripheral location. Most of these questions were not used as variables in the analysis. Third, numbers were assigned to the categories resulting in "scales" with varying ranges (either 2, 3, or 4 steps). The complete set of codes is shown in Appendix A. These codes were used in the analyses described next.

The Analysis

Thirty-five variables were used in the analysis. The study design is correlational. By this we mean that no attempt was made to establish causal relationships among the variables. Nor do we assume that particular variables preceded others in time. All variables are related to each other in the form of a matrix of correlations: the 35 variables produce 592 correlations.³ Two types of

³The type of correlation computed is the gamma coefficient. This is a measure of non-parametric correlation that makes few assumptions about scaling of variables or frequency distributions. It analyzes the pattern of responses in contingency tables and is well suited to the type of data collected

analyses were computed. One sought to discover relationships among the various parts of international negotiation as depicted in the interviews. For these analyses, correlations are computed among the variables across the 23 cases. In addition, selected variables were analyzed by discriminant analysis. This technique provides a ranking among variables in terms of their relative importance in distinguishing among the categories of another variable. For example, we ask which variables are most (least) important in distinguishing among bilateral, small, medium, and large negotiations or among the various types of negotiations. (See Klecka, 1980, for a detailed discussion of discriminant analysis.) Another analysis sought to discover similarities and dissimilarities among the cases. Here, the 23 cases are compared across the variables. Similarities and dissimilarities are depicted in terms of a two-dimensional space that results from multidimensional scaling (MDS). (For details on this technique, see Kruskal and Wish, 1990.) Before turning to the results, we present an example of an earlier PIN Project study in which 12 cases of international negotiation were analyzed with MDS.

Example of an MDS application. An earlier analysis examined 12 cases divided roughly among arms control (ABM, SALT, test-ban), trade and politics (GATT, European Single Act), and environmental (Montreal Protocol, Acid Rain, Transboundary Air Pollution, Convention on Notification and Assistance in Case of Nuclear Accidents) negotiations. Secondary sources (published descriptions of the case) were used to code each case on 12 variables representing some of the same aspects of negotiation used in this study (e.g., number of parties, relationship among the parties, third parties, turnover, external events, concessions). The 12 x 12 matrix of correlations was input into the MDS program to discern similarities and dissimilarities among the cases. The resulting cluster of the cases in two dimensions is shown in Figure 1. The more similar the cases across the 12 variables, the more closely situated they are in the figure.

for this study. (See Goodman and Kruskal, 1954, for a discussion of this statistic.)

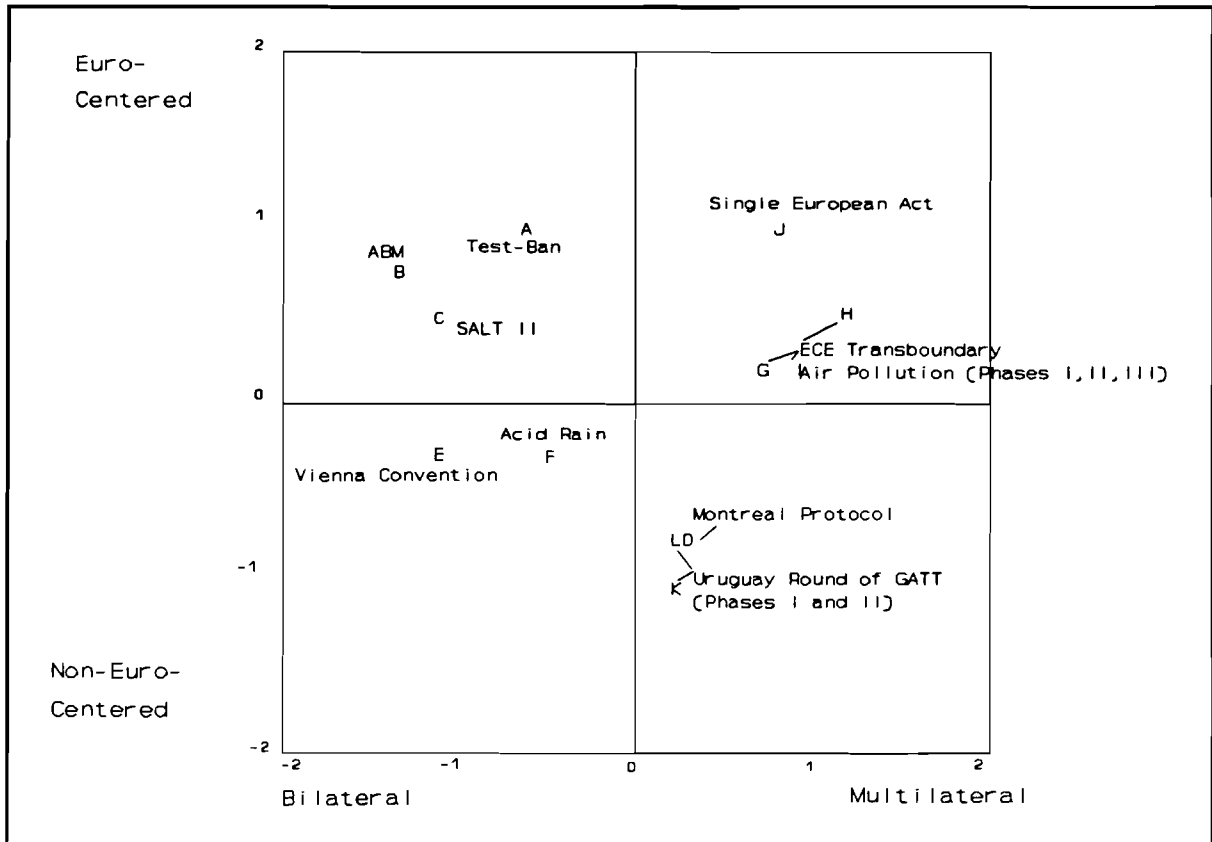


Figure 1. Twelve Negotiations in Two Dimensions

Thus, cases in the same quadrant are quite similar; note the close clustering of the three arms-control cases. Based on the distribution of cases, we are able to name each of the two dimensions. The horizontal dimension, running from west to east, captures a progression of cases from bilateral to large multilateral talks. The vertical dimension, running from north to south, captures the difference between those talks that are centered on primarily European problems and those that are non-European centered or are more global in their focus and implications. A closer look at the codes assigned the cases would provide further insights into the specific aspects of the negotiation that are similar or dissimilar. The same analysis procedure is used in this study. However, we analyze a greatly-expanded number of variables (35) and cases (23) using primary (interviews with participants) rather than secondary sources.

RESULTS

This section is divided into two parts. First, we present the results of analyses that examine relationships among the variables across the cases. Second, the results of the MDS analysis are discussed.

Relationships Among Variables

As noted above, the variables are related to each other in the form of a large [35 x 35] matrix of correlations shown in Appendix C. Our challenge is to highlight key relationships in this matrix. We do this in three ways. First, relationships among the subsets of questions asked in each part of the interview are discussed. Second, the way certain variables impact on processes and outcomes are examined. Third, special attention is given to variables that have received attention in the literature on negotiation and/or were shown in this analysis to produce a large number of relationships with other variables.

Aspects of Negotiation

It will be recalled that the interview was divided into eight parts, each representing an aspect of international negotiation. Results obtained for each part are discussed in turn.

Structure of negotiation. Four significant relationships were obtained among the structural variables.

a. Bilateral negotiations were more likely to be held in private than multilateral negotiation [indicated by a correlation of .7 between the number of delegations and whether the negotiation was private, mixed, or public].

b. Private negotiations were characterized by fewer informal meetings than public negotiations [indicated by a correlation of $-.48$ between the public or private and the frequency of informal meetings].

c. Private meetings were characterized by a more highly involved secretariat [indicated by a correlation of $.57$ between these variables].

d. Negotiations that involved more preparation had more informal meetings than those in which preparation time was relatively short [indicated by a correlation of $.59$ between these variables].

Composition of delegations. The variables in this cluster were relatively independent. None of the relationships were significant. However, two relationships with structural variables are noted. More turnover of delegates occurred among the larger delegations and the Austrian delegation was more powerful in the negotiations where it had relatively small delegation size. The weakest variables overall -- in terms of relationships with variables in other categories -- were in this cluster: namely, technical expertise on the delegation, size of the delegation, and the relationship between the delegations.

Bureaucratic support. Four relationships were significant among the bureaucratic support variables. The cluster included relationships among tracking by high-level officials, the extent to which delegates were constrained by instructions, the latitude given to delegates in the instructions, and whether analytical support was given to the delegation. The key variable in this category was tracking: the more the tracking, the more the delegation was constrained by instructions, the less latitude given them in the instructions, and the more analytical support provided. Further, more analytical support was provided in negotiations where the delegation was closely tracked by high-level government officials.

Issues. Negotiations about many issues were primarily about interests rather than ideological concerns. When interests were primarily at stake, the issues were more likely to be discussed in combination, as packages.

The negotiating situation. Delegates had attractive alternatives to a negotiated agreement when deadlines were not firm and when third parties were not present. It would seem that third parties were simply not needed to resolve disputes when delegates had attractive alternatives. Facing a deadline without an attractive alternative is one way of securing an agreement, which occurred in most of these cases. As expected, negotiations that were widely covered by the media were those in which there was considerable awareness of the issues being contested. Third parties were also more likely to be involved in the widely-covered negotiations.

The negotiation process. A more stage-like (proceeding in a linear fashion) negotiation process occurred when the talks were relatively open (parties shared rather than concealed information), when they discussed the issues in terms of packages, and when they studied the issues rather than strategized prior to the formal discussions. [The latter relationship is particularly strong as indicated by a .98 correlation.] As expected, more threats were issued in less open negotiations.

The outcome. Practically all the cases considered in this analysis concluded with an agreement. Thus, outcomes were construed in terms of the type of agreement reached: whether it was a treaty and the comprehensiveness of the agreement. These measures were correlated. Treaties were more likely to be comprehensive (rather than partial) agreements in the sense that all issues were resolved.

Events and political relationships. The three variables in this cluster were outside influences, political relationships, and linkages to other talks. More linkages were made to other

negotiations among friendly delegations and in negotiations influenced by outside events.

Influences on Processes and Outcomes

The scientific literature on negotiation examines the impact of various factors on processes and outcomes. In this study, impacts are examined on three aspects of the process, its openness, the frequency with which threats are made, and the extent to which the process is stage-like. Relationships are also explored on the two key outcome variables, whether a treaty or less binding agreement was negotiated and the comprehensiveness of the agreement. Following are summaries of the significant relationships.

Stage-like processes. Negotiations were viewed as being more stage-like (proceeding from early to late discussions in a linear fashion) after the parties studied the issues for a short period, when only a few major issues were discussed among a small number of delegations, when these issues were primarily ideological, when the talks were private but open, when there was an involved secretariat, positive relations among the delegations, and few outside influences. Particularly strong relationships occurred for the study and outside influence variables: stage-like processes were especially likely to occur when delegates studied the issues prior to negotiating them and when there were few outside influences. Studying the issues produced a stage-like process; outside influences may serve to interfere with that progression.

Open processes. Open processes occurred when the talks were more stage-like and there were few threats made by the delegates. They occurred when only a few issues were on the table in private discussions, when there were only a few outside influences and when relationships among the delegates were generally friendly.

Threats. More threatening statements were made in negotiations characterized by informal discussions. As expected, they were also more frequent when the political relationships among the delegation were negative.

These process are interrelated: as noted above, more open processes were associated with both stage-like progressions and few threats. Each was associated strongly with the frequency of outside influences and/or the type of political relationship among the delegations. These external factors may be viewed as "driving forces" on the process, if not producing, then, at least, coinciding with whether a negotiation is stage-like, open, and characterized by few or many threats.

Treaties. The conditions for treaties were relatively small delegations, the development of packages of related issues, preparing by studying the issues, few major issues on the table, few outside influences, relatively private discussions, and attractive alternatives to a negotiated agreement. The strongest influences on treaties were number of parties (fewer parties were more likely to result in treaties) and whether the talks were public or private (more private discussions were more likely to result in treaties). The process variables discussed above were not related to whether a treaty or other type of agreement emerged from the talks. Processes and outcomes were, however, influenced by similar variables, namely, studying the issues, number of issues on the table, and outside influences.

Comprehensiveness of the agreement. More comprehensive agreements were obtained when there were fewer outside influences and positive political relations among the delegations. They also occurred more frequently when large delegations had attractive alternatives to the terms of agreement on the table.

Treaties and comprehensive agreement were correlated: Treaties usually took the form of comprehensive, rather than partial, agreements. Both outcomes occurred more often when there were few outside influences and when the delegates had attractive alternatives. Outside influences also correlated with the process measures. Alternatives related strongly to outcomes, not to processes.

Key Variables

The literature on international negotiation pays special attention to the differences between bilateral and multilateral forums (Zartman, 1993), the types of issues being negotiated (Ikle, 1964), and the role played by third parties (Bercovitch and Rubin, 1992). These analyses elucidate some correlates of each of these key variables.

Bilateral vs. multilateral forums. This variable produced a substantial number of significant correlations with the other aspects of negotiation coded for this study. Small, as contrasted to large forums, had less turnover of delegates, more high-level interest in the negotiation, less firm deadlines, more private discussions, more attractive alternatives (BATNAs: Best Alternative to a Negotiated Agreement), were more likely to prepare by studying the issues, more packaging of the issues, a more stage-like process, and more friendly political relations between the national delegations. In addition, treaties were more likely to result from the smaller negotiations. Taken together, these 10 variables distinguished between small and large conferences very well: based on discriminant analysis, 83% of the cases were correctly classified as either bilateral or multilateral on the basis of these variables. The strongest variables in this list were turnover (more turnover of delegates in large conferences), treaties (more likely for small conferences), deadlines (firmer in larger conferences), and public versus private venues (smaller conferences were more private).

Type of negotiation. The 23 cases were grouped into four issue-area categories: economic, environmental, security, and other. Strong relationships with type were obtained for five variables. While the economic cases took longer, they tended to be more informal, construed the issues in packages, had a highly involved secretariat, and the delegations had more attractive alternatives than those in environmental or security talks. Together, these variables distinguished among the types of cases with 65% accuracy: 65% of the cases were classified correctly by discriminant analysis which only uses information about these 5 variables. The strongest discriminating variables were an involved secretariat (more involved in economic talks) and length (economic talks were longer).

Third-party involvement. Third parties were more likely to be used in complex (many issues) and competitive negotiations (strategizing, negative relations, unattractive BATNAs) that focus primarily on interests (rather than ideology), and when the negotiation is protracted with few informal meetings and high turnover of delegates. Outside influences and an involved secretariat were also conditions for the use of third parties. Complexity seemed to be the most compelling reason for using third parties: number of issues produced the strongest relationship with third parties. However, the use of third parties was not related to processes or outcomes. The conditions for intervention identified in this analysis did not seem to have implications for the consequences of third-party intervention.

Discussion

Several implications of these findings can be offered. They are summarized in terms of answers to four questions asked about influences, processes, and outcomes.

What aspects of negotiation have the strongest, and which have the weakest, impact on processes and outcomes?

The external factors of political relationships and outside influences related strongly to both processes and outcomes. While friendly political relations had positive influences on processes (open, stage-like, and few threats) and outcomes (comprehensive agreements), outside influences had negative impacts on both processes (less open, less stage-like) and outcomes (less likely to be a treaty or a comprehensive agreement). Linkages to other forums had a negligible impact on processes or outcomes but were correlated with political relationships (more linkages with positive relations). Better processes and outcomes also resulted from fewer parties, studying the issues prior to negotiation, and relatively private settings. The cluster of variables referred to as bureaucratic support (instructions, tracking, latitude, and analytical support) were related to one another but did not correlate with either process or outcome variables.

Can outcomes be predicted from processes?

Outcomes did not derive directly from processes. Relationships between the process and outcome variables were weak. The outcomes attained in these cases appeared to be influenced more by aspects of the situation (studying the issues, public or private forums), outside influences, and the attractiveness of alternatives. Some of these relationships are shown in Figure 2 below (numbers along the arrows connecting the variables are correlations).

Are smaller conferences more or less effective than larger conferences?

Smaller conferences are more likely to result in treaties as well as proceed in more stage-like fashion than larger conferences. This difference may be due to three intervening factors shown to relate both to size and outcomes: studying the issues, attractive BATNAs, and private discussions. Size of the negotiation is also shown below to be a key dimension in clustering the cases in terms of similarities and dissimilarities.

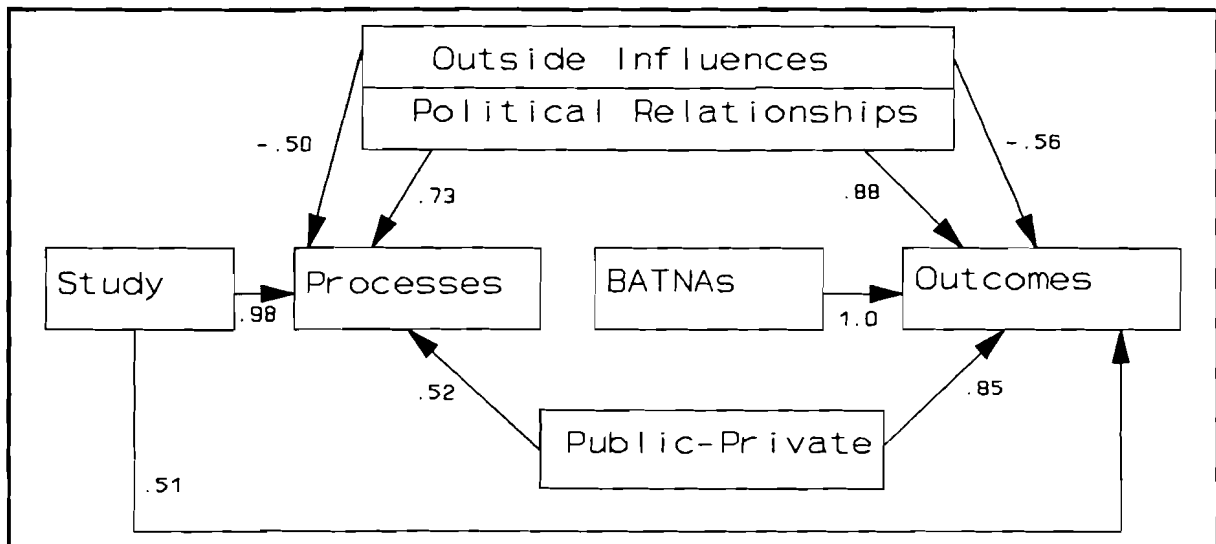


Figure 2. Relationships Among Selected Variables

Can negotiators alter situations to produce desirable outcomes or processes?

Some of the significant influences on outcomes identified in this analysis can be controlled more easily than others. If treaties and comprehensive agreements are desired, negotiators can influence whether the delegations study or strategize prior to negotiation, whether the talks are private or public, and whether to package the issues under consideration. They are likely to have less control over the number of delegations or outside influences. Whether negotiators study or strategize and the privacy of the deliberations are also controllable factors shown to influence the process. More generally, the variables in the categories of negotiation structure (size, power differences) and external factors (relationships, events) are more difficult to control or manipulate. Those in the categories of delegate composition (size of delegation, turnover), bureaucratic support (instructions, tracking), and situation (deadlines, location) are easier to alter.

Similarities and Dissimilarities Among the Cases

The 23 cases were compared in terms of the "profiles" of codes on the variables. The statistical procedures used to make the comparisons contribute to the development of a methodology for making systematic comparisons among diverse cases of negotiation. The procedures are the same

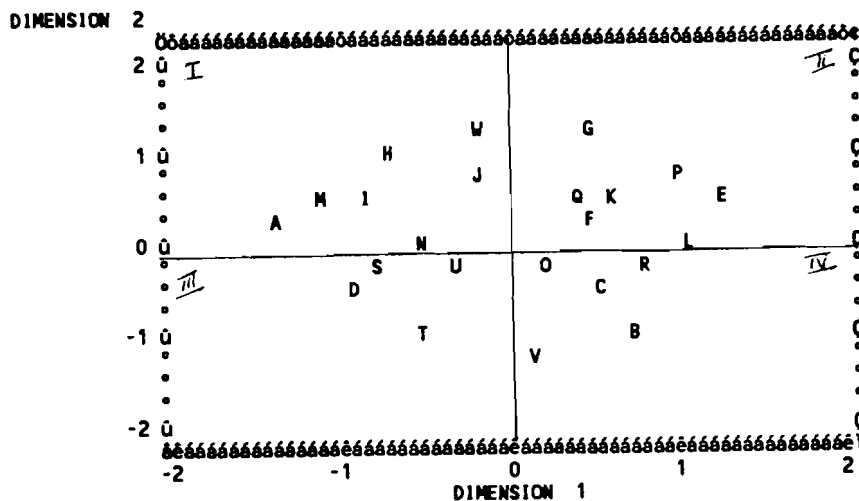
as those used in our earlier analysis of 12 cases from secondary sources described above. For these analyses, the correlations are used as indicators of similarity between pairs of cases. Higher (lower) correlations between cases indicate more (less) similarity across the variables. The correlations are then input as data for the multidimensional scaling analysis. That analysis reduces the large number of correlations to two dimensions that define four quadrants in which the cases are seen to cluster. The dimensions impose order on the set of cases; naming them provides meaning to the exercise.

The results, shown in Figure 3, consist of a two-dimensional space in which the 23 cases are situated. Together, the two dimensions account for 64% of the variation in the cases. Of the two dimensions, the horizontal, running from west to east, is stronger than the vertical dimension running from north to south: the former accounts for 42% of the case variation while the latter accounts for 22% of the variation. The horizontal dimension is also easier to name. Moving along the dimension, it is possible to discern a progression from smaller bilateral negotiations to larger multilateral talks.

As depicted in Figure 4, the three clusters, going from west to east, consist of bilateral, small multilateral, and medium to large multilateral cases respectively. This size dimension is also evident in the correlation between each of the two dimensions and the number of parties variable: the horizontal dimension correlates .81 with parties while the vertical dimension shows only a .14 correlation with that variable. High correlations are also shown between this dimension and the various correlates of size discussed above: namely, turnover of delegates, treaty outcomes, stage-like processes, packaged issues, political relations, public or private forums, and alternatives to an agreement. Thus, moving from west to east, the horizontal dimension distinguishes small, bilateral cases from larger, multilateral cases along with the associated characteristics of size. Examples of cases in each of the three clusters shown in Figure 3 are the EFTA-EC talks (bilateral), the European Environmental Transboundary discussions (small multilateral), and the UNCED Rio Declaration or the Biodiversity Convention negotiations (large multilateral). Closer examination of the coded variables for each case would reveal other factors either that they have in common or that distinguish among them.

The dimension running from north to south is more difficult to name. The strongest correlations with this dimension are between it and the issue variables: packages, number of major issues, and whether the issues involve interests or ideologies. It also correlates strongly with the use of third parties. This set of relationships suggests a dimension going from highly complex negotiations (in the north quadrants) to less complex talks (in the south quadrants). However, since the cases do not cluster in an obvious way, as with the horizontal dimension, this name remains conjectural.

Figure 3. 23 Negotiations in Two Dimensions



- I: A: EFTA - EC Economic Area
M: EFTA - EC Environment
I: Austria - EC Membership
H: EC - Austria Transition
N: EFTA - Third Country
J: European Env. Impact Ass. Transboundary
W: OECD
- II: G: Biodiversity Convention
Q: Climate Change
F: CSCE - Peaceful Settlements
K: UNCED - Rio Declaration
P: UNGA - Peacekeeping
E: CSCE - Helsinki Follow-Up
L: UNGA - Legal
- III: D: Austria - Political/Diplomatic
S: Austria - Italy Legal
U: EFTA - EC
T: Transboundary Air Pollution
- IV: O: Central European Initiative
V: Socialist International
C: Rio: Nuclear Waste
R: Middle East Multilateral Negotiations
B: CSCE - Council Ministerial Meeting

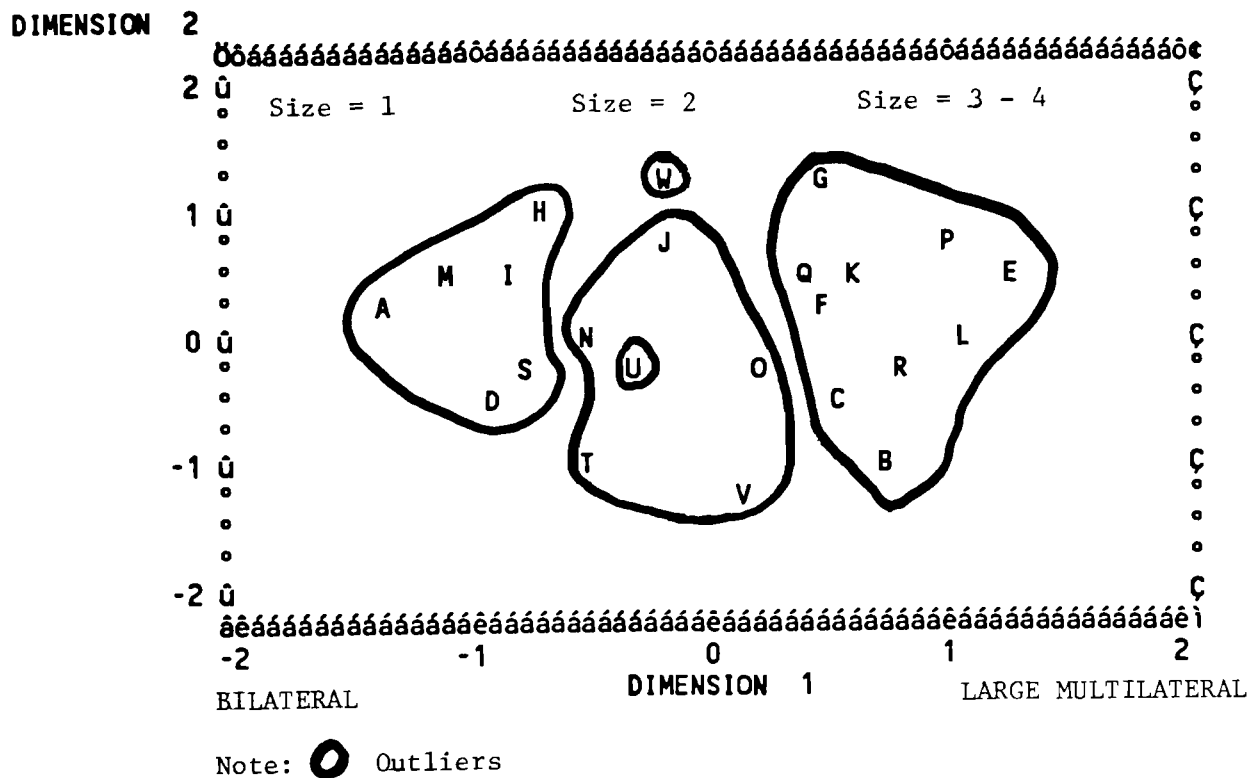


Figure 4. The Size Dimension

The dimensional structure shown in the figures reflects the set of 35 variables on which all the cases were coded. In order to ascertain the extent to which these results are constrained by that particular set of variables, we performed another scaling analysis on a smaller sample of 10 variables chosen from each of the categories: namely, number of delegations, power, technical knowledge, turnover, delegation size, political relations, openness of process, bindingness of the agreement, comprehensiveness of the agreement, and type of negotiation. Interestingly, with only a few exceptions, the cases were situated in the same quadrant or, with regard to "border" cases, near the

quadrant in which they were located in the analysis based on 35 variables. A clear size dimension was apparent for the horizontal dimension while similar problems existed in attempting to name the vertical dimension. These results suggest a robust conference size dimension. It captures the pattern of cases for both large and small samplings of the coded variables.

The scaling analyses are highly aggregated. They summarize similarities and dissimilarities among the cases in terms of many variables. It is also possible to depict relationships at a considerably less aggregated level, for example, the way the cases cluster on just two variables. This clustering is illustrated in Figures 5, 6, and 7. Codings between size of negotiation and each of three correlated variables -- deadlines, treaties, and turnover -- are shown⁴. The smaller negotiations (e.g., EC-Austria Transition) are characterized by either no deadlines or deadlines that are not firm. Many of the larger conferences (e.g., Biodiversity Convention) have firm deadlines for producing an agreement as indicated by the cases coded as 3 or 4 on size and 1 on deadlines (see Figure 5). [The correlation between these variables is $-.51$.] Smaller conferences were more likely to achieve treaties while larger negotiations usually resulted in either binding or non-binding agreements but not treaties [A correlation between these variables of $.63$ summarizes the patterns shown in Figure 6.] And, smaller negotiations had less turnover of delegates than the larger conferences. [A correlation between these variables of $.79$ summarizes the way the cases cluster as shown in Figure 7.] These analyses are intended to be illustrative. Other analyses of the cases on pairs of variables can be performed: For example, between the variables shown to correlate with processes or outcomes. The interested reader is encouraged to perform these analyses using the codes provided in Appendix D.

Discussion

An overriding conclusion, supported by both the earlier analysis of 12 cases and this analysis

⁴A relationship between the pairs of variables is indicated by a clustering of cases in the cells along the diagonal (either upper left and lower right cells or upper right and lower left cells). The more cases that fall in these cells, the stronger the relationship (or higher the correlation) between the variables.

of 23 cases, is that size of a negotiation is an important variable. It distinguishes clearly among the cases in terms of a number of associated characteristics, such as treaty outcomes, stage-like processes, packaged issues, political relationships, firmness of deadlines, and turnover of delegates.

Bilateral negotiations are more likely to be characterized by treaties, low turnover, stage-like processes and so on. These findings support Ikle's observation: "In bilateral negotiations the 'available terms' can be described more simply. If a government is negotiating an agreement that is to be cast in the form of a treaty, the terms available at any particular time consist of the articles agreed to, articles offered by the opponent, plus those terms for articles not yet discussed that the government expects its opponent would be ready to grant" (1964, p. 60). Bilateral negotiations may facilitate choosing among the "available terms." They also may be a more cost-effective alternative to participation in multilateral forums: fewer transaction costs and better outcomes. This information would seem to be quite valuable to the practicing diplomat. It calls attention to factors that can be controlled to produce binding agreements. It must be cautioned, however, that the findings should not be interpreted as an indictment of multilateral negotiations. These forums offer other benefits not available in bilateral settings. One is alliance coordination (see Dean, 1986). Another is the creation of communities of opinion that serve as regimes that regulate transactions among regional or global actors (e.g., Krasner, 1983). These advantages incur from conference diplomacy. They are not a result of negotiation intended to produce binding agreements.

Figure 5. Cases Organized by Size and Deadline

		SIZE		
DEADLINE	Bilateral	Small Multilateral	Medium Multilateral	Large Multilateral
no deadline	EFTA - EC EFTA - EC Economic Area Austria - Pol. Dipl. EC - Austria Transition Austria - Italy legal	European Environmental Transboundary EFTA - Third Country Transboundary Air Pollution	UNCED - Rio Declaration Middle East Multilateral Negotiations	
not firm	Austria - EC Membership EFTA - EC Environment	Central Europe Initiative		UNGA - Legal Climate Change
firm		Socialist International	CSCE - Council Ministerial Meeting CSCE - Helsinki Follow Up CSCE - Peaceful Settlements OECD	Rio: Nuclear Waste Biodiversity Convention UNGA - Peacekeeping

Figure 6. Cases Organized by Size and Treaty

			SIZE			
TREATY	Bilateral		Small Multilateral		Medium Multilateral	Large Multilateral
non-binding			Central Europe Init. Socialist International		UNCED - Rio Declaration ME: Mult. OECD	UNGA - Peacekeeping
binding					CSCCE - Helsinki Follow Up	Rio: Nuclear Waste Biodiversity Convention UNGA - Legal Climate Change
treaty	EFTA - EC Economic Area Austria - Pol. Dipl. EC - Austria Transition Austria - EC Membership EFTA - EC Environment Austria - ITY legal EFTA - EC		European Environmental Transboundary EFTA - Third Country Transboundary Air Pollution		CSCCE - Council Ministerial Meeting CSCCE - Helsinki Follow Up	

Figure 7. Cases Organized by Size and Turnover

		SIZE		
TURNOVER	Bilateral	Small Multilateral	Medium Multilateral	Large Multilateral
many changes			CSCE - Peaceful Settlements ME: Mult	Biodiversity Convention UNGA - Legal
some changes	EC - Austria Transition	European Environmental Transboundary	CSCE - Helsinki Follow Up UNCED - Rio Declaration	Rio: Nuclear Waste UNGA - Peacekeeping Climate Change
no changes	EFTA-EC Economic Area Austria - Pol.Dipl. Austria - EC Membership EFTA - EC Environment Austria - ITY legal EFTA - EC	EFTA - Third Country Central Europe Init. Transboundary Air Pollution Socialist International	CSCE - Council Ministerial Meeting OECD	

IMPLICATIONS AND NEXT STEPS

The results reported in this paper contribute in important ways to our knowledge of the processes and influences on negotiation. Four findings, in particular, address key issues in the literature. One is the relative importance of external (outside influences, political relationships) and internal (bureaucratic support) factors: the external factors had stronger impacts on processes and outcomes (see Hopmann and Smith, 1977). Another is the apparent "disconnect" between processes and outcomes: the process variables of stage-like progressions, openness, and threats did not distinguish among the different types of outcomes; alternatives and situational factors did (see Druckman, 1993). A third finding of interest is that while third parties were used in difficult circumstances (complex and competitive talks), their intervention had little impact on the outcome (see Wall and Lynn, 1993). And, most compelling perhaps is the clear distinction between bilateral and multilateral forums: the former is simply a more effective format for negotiating agreements (see Zartman, 1993). These and other findings demonstrate the value of this approach to analysis of negotiation.

The approach illustrates also what can be done with direct interviews of negotiators. The insights reflect their experiences; the findings are closer to the actual conduct of negotiation than much of the research conducted on this topic to date. We are provided with windows on aspects of negotiation -- delegations, bureaucratic support, processes -- that are not transparent in second-hand accounts of cases. And, perhaps for the first time, we were able to use this information to compare different cases in a systematic manner. The comparisons aid in distinguishing types or "species" of negotiations in terms of the general categories used in the interviews. They also call to the practitioner's attention past cases that may be most similar to a current negotiation in which he or she is engaged. This is one way of using lessons from the past to inform current practice; for example,

guidance is provided by knowing that similar past cases succeeded when the talks were held in private and the delegations had attractive alternatives to a negotiated agreement. However, the insights obtained and the guidance offered may be limited to the particular sample of cases included in the analysis. The extent to which these results apply more generally to a wider set of cases and delegations can only be ascertained by extending the coverage in further studies. The extent to which the information obtained in the interviews reflects the critical factors in negotiation depends on the validity of the conceptual framework from which the questions derive.

With regard to coverage of cases, the 23 negotiations examined here are an opportunity sample determined for the most part by availability and convenience. On the one hand, this presents a problem for statistical analysis: Although there is considerable variety in the set, with coverage of economic, environmental, and security talks, the sample is not representative in the sense that it was drawn randomly from a known universe of cases. On the other hand, this particular set of cases reflects significant negotiating experiences not generally available in published documents; they have important policy implications for Austria and other European countries. Moreover, as noted above, the information gathered came directly from the participants. Any attempt to expand the coverage would undoubtedly move us in the direction of coding information from secondary sources. We are faced with a "trade-off" of advantages and disadvantages. The smaller opportunity sample yields valuable first-hand information; the larger representative sample of cases may depend largely on secondary sources for information. The larger sample, while useful for developing a repository of information, suffers from lack of information in such categories as bureaucratic support and processes. A next step entails extending the coverage with cases on which sufficient relevant information is available, either from primary or secondary sources.

With regard to types of information, the interview guide was inevitably selective in terms of the kinds of probes made. Information about only certain types of processes and outcomes were

gathered and coded. It would be useful, for example, to elicit responses about formulas or frameworks used to guide the discussions, further details on exchanges of concessions or log-rolling dynamics, such statements made in the give-and-take as commitments, promises, accommodations, any role-reversing that may have occurred, and coalitions that cut across delegations on certain issues. On outcomes, further specification of effectiveness is needed: What criteria ought to be used to distinguish between effective and ineffective outcomes? Related to the issue of effectiveness is implementation: How durable was the agreement? Other questions could be added in other categories as well, and the particular questions asked (or variables represented in the interview) will reflect particular conceptual approaches to negotiation; an expanded set of questions can indeed represent several conceptual approaches or new hypotheses about factors that affect the process or outcome. But, the interview can also be contracted. A number of the questions asked resulted in highly asymmetrical response distributions: for example, importance of agendas, location of conference. These could be dropped from future versions of the interview guide. Further expansion and refinement of the interview guide would also benefit from closer working relationships with international diplomats similar to those developed in the context of this project.

REFERENCES

- Bercovitch, J. and J.Z. Rubin (1992) *Mediation in International Relations*. New York: St. Martin's Press.
- Bloomfield, L.P. and R. Beattie (1971) "Computers and policy-making: The CASCON experiment." *Journal of Conflict Resolution*, 15:33-46.
- Dean, J. (1986) "East-West arms control negotiations: The multilateral dimension." In L. Sloss and M.S. Davis [eds.] *A Game for High Stakes*. Cambridge, MA: Ballinger.
- Druckman, D. (1993) "The situational levers of negotiating flexibility." *Journal of Conflict*

Resolution, 37:236-276.

Druckman, D. (1977) *Negotiations: Social-Psychological Perspectives*. Beverly Hills: Sage.

Druckman, D. and L. Iaquinta (1974) "Toward bridging the international negotiation/mediation gap." *International Studies Notes*, 1: 6-14.

Fleishman, E.A. and M.K. Quaintance (1984) *Taxonomies of Human Performance: The Description of Human Tasks*. Orlando, Fl: Academic Press.

Frederiksen, N. (1971) "Toward a taxonomy of situations." Paper presented at the annual meeting of the American Psychological Association, Washington, D.C.

Goodman, L.A. and W.H. Kruskal (1954) "Measures of association for cross classification." *Journal of the American Statistical Association*, 49: 732-764.

Hopmann, T.P. and T.C. Smith (1977) "An application of a Richardson process model: Soviet-American interactions in the test-ban negotiations, 1962-63." *Journal of Conflict Resolution*, 21: 701-726.

Ikle, F.C. (1964) *How Nations Negotiate*. New York: Harper.

Klecka, W.R. (1980) *Discriminant Analysis*. Sage University Paper series on Quantitative Applications in the Social Sciences, 07-019. Beverly Hills: Sage.

Krasner, S. [ed.] (1983) *International Regimes*. Ithaca, N.Y.: Cornell University Press.

Kremenyuk, V.A. [ed.] (1991) *International Negotiations: Analysis, Approaches, Issues*. San Francisco: Jossey-Bass.

Kruskal, J.B. and M. Wish (1990) *Multidimensional Scaling*. Sage University Paper series on Quantitative Applications in the Social Sciences. 07-011. Beverly Hills: Sage.

McDonald, J.W., Jr. and D.B. Bendahmane (1990) *U.S. Bases Overseas*. Boulder, CO: Westview.

Randolph, L. (1966) "A suggested model of international negotiation." *Journal of Conflict Resolution*, 10: 344-353.

Sawyer, J. and H. Guetzkov (1965) "Bargaining and negotiation in international relations." In H.C. Kelman [ed.] *International Behavior: A Social-Psychological Analysis*. New York: Holt.

Sells, S.B. (1966) "A model for the social system for the multi-man space ship." *Aerospace Medicine*, 37:1130-1135.

Sjöstedt, G. (1993) *International Environmental Negotiation*. Newbury Park: Sage.

Spector, Bertram I. (1993) *International Negotiation Support Systems: Assessing the Need for Practical Tools*. WP-93-35. Laxenburg, Austria: International Institute for Applied Systems Analysis.

Wall, J. and A. Lynn (1993) "Mediation: A current review." *Journal of Conflict Resolution*, 37: 160-194.

Zartman, I.W. (1993) *Analysis of Multilateral Negotiation*. San Francisco: Jossey-Bass.

APPENDIX A: Coding Manual

TYPE OF NEGOTIATION: 1 = economic (N=6); 2 = environmental (N=6); 3 = security (N=4); other (N=7)

I. STRUCTURE

- a. Number of delegations: 1=bilateral (N=7); 2=small multilateral (8-20) (N=5); 3=medium multilateral (21-75) (N=6); 4=large multilateral (> 75) (N=5)
- b. Private or public: 1=private (N=15); 2=mixed (N=4); 3=public (N=4)
- c. Length of negotiation: 1=days (N=2); 2=months (N=7); 3=years (N=14)
- d. Relative power of delegations: 1=Austrian delegation stronger (N=9); 2=equal (N=5); 3=weaker (N=9)
- e. Informal meetings: 1=many (N=14); 2=some (N=4); 3=few or none (N=5)
- f. Length of preparation: 1=years (N=7); 2=months/weeks (N=12); 3=days or none (N=4)
- g. Secretariat involvement: 1=highly involved (N=7); 2=somewhat involved (N=4); 3=not involved (N=8); 4=no secretariat (N=4)

II. COMPOSITION OF DELEGATIONS

- a. Size of delegations: 1=small (> 3) (N=11); 2=medium (4-9) (N=10); 3=large (> 9) (N=2)
- b. Turnover: 1=no changes (N=12); 2=some changes (N=7); 3=many changes (N=4)
- c. Technical knowledge: 1=whole delegation (N=7); 2=most of delegation (N=8); 3=50% or less of delegation (N=8)
- d. Chief-of-delegation control: 1=high control (N=5); 2=moderate control (N=3); 3=no control, delegator of tasks (N=10)
- e. Differences in culture: 1=yes (N=6); 2=no (N=14)
- f. Number agencies represented: 1=none (N=6); 2=few (N=7); 3=many (N=3)
- g. Experience: 1=very (N=8); 2=quite (N=8); 3=little (N=1)
- h. Negotiate in other forums: 1=yes (N=15); 2=no (N=3)
- i. Relationship among delegations: 1=very friendly (N=4); 2=friendly (N=12); 3=neutral (N=3); 4=fluctuating (N=4)

III. BUREAUCRATIC SUPPORT

- a. Instructions: 1=highly constrained (N=7); 2=somewhat constrained (N=8); 3=no constraints (N=8)
- b. Latitude: 1=no latitude (N=5); 2=some latitude (N=9); 3=latitude (N=9)
- c. Tracking by high-level officials: 1=regular (N=19); 2=irregular (N=4)
- d. Analytical support: 1=yes (N=15); 2=no (N=8)

IV. ISSUES

- a. Total issues: 1=few (N=4); 2=many (N=9)
- b. Number of major issues: 1=1-2 (N=8); 2=3-4 (N=11); 3=>4 (N=4)
- c. Package: 1=yes (N=15); 2=no (N=8)
- d. Interests or ideology: 1=interests (N=15); 2=ideology or both (N=8)

V. THE NEGOTIATING SITUATION

- a. Deadlines: 1=firm (N=7); 2=not firm (N=5); 3=none (N=11)
- b. Publicity: 1=wide coverage (N=7); 2=limited coverage (N=16)
- c. Location: 1=Capital city (N=20); 2=peripheral (N=0)
- d. Third-parties: 1=none (N=18); 2=some (N=5)
- e. BATNAs: 1=attractive (N=4); 2=unattractive (N=19)
- f. Public awareness of issues: 1=much (N=4); 2=some (N=8); 3=very little (N=11)

VI. THE NEGOTIATING PROCESS

- a. Study or strategizing: 1=primarily study (N=17); 2=primarily strategy (N=6)
- b. Agendas: 1=important (N=16); 2=partial (N=1); 3=not followed (N=3)
- c. Procedures vs. substance: 1=substantive (N=12); 2=both (N=3); 3=procedural (N=3)
- d. Comprehensive direction: 1=comprehensive (N=12); 2=partial (N=6)
- e. Stages: 1=stage-like process (N=17); 2=no stages (N=6)
- f. Tit-for-tat: 1=yes (N=11); 2=both (N=3); 3=not TFT (N=4)

- g. Problem-solving: 1=problem-solving process (N=14); 2=other (N=4)
- h. Predictable: 1=predictable/framework (N=15); 2=not predictable (N=3)
- i. Threats: 1=frequent (N=4); 2=occasional (N=8); 3=infrequent (N=11)
- j. Open process: 1=open (N=12); 2=mixed (N=6); 3=concealing (N=5)

VII. OUTCOMES

- a. Treaty or other: 1=treaty (N=12); 2=binding agreement (N=5); 3=non-binding agreement (N=6)
- b. Comprehensiveness: 1=comprehensive resolution (N=17); 2=partial resolution (N=6)
- c. Calculable gains: 1=yes (N=8); 2=no (N=7)
- d. Effectiveness: 1=effective (N=13); 2=not effective (N=5)

VIII. EVENTS

- a. Outside influences: 1=yes (N=9); 2=no (N=14)
- b. Political relationships: 1=positive (N=19); 2=negative (N=4)
- c. Linkages: 1=yes (N=15); 2=no (N=8)
- d. Changes during talks: 1=yes (N=6); 2=no (N=12).

Interview Guide
for Comparative Methodology and Analytical Requirements Studies

For the Interviewer:

The interview seeks descriptions of nine major elements of a negotiation: the structure of the talks, the structure and composition of the delegations, the bureaucratic support structure, the issues, the immediate situation facing negotiators, analytical support, the process, the outcomes, and events taking place away from the negotiation. This guide is intended to elicit information during an interview, not to be completed by a respondent as a questionnaire. The information should be coded by analysts rather than the informants, although occasionally we ask the informant to "rate" or "scale" his or her answer to a question about "the extent to which ..." Some questions may not be relevant for particular cases, and these need not be answered. Note, also, that some questions (marked with *) should be answered as it applies for each delegation if possible. The respondent should answer for his/her own delegation and provide, at least, a typical range for other delegations.

Background of Interviewee

Name: _____

Title/Position/Ministry: _____

Date of Interview: _____

Negotiation (and subprocess, if applicable): _____

Date of Negotiation described: _____

Your Role/Position in Delegation and/or in Negotiation: _____

I. Structure of the Negotiation

. How many national delegations were represented around the table?

. Was the venue primarily public (a visible negotiation), private, or a combination where some sessions were public and others private?

. What was the length of the negotiation in terms of rounds, plenary sessions, or months/years?

. Would you consider your delegation powerful or weak in comparison to others at the negotiation? Was there a wide divergence (asymmetry) in power between the various delegations or coalitions in the negotiation? What was the source of your power (military, economic, or political)?

. How many "off-the-record" consultations -- or informal meetings -- occurred among the various delegations -- before the talks and then during the talks? If you have difficulty coming up with a number, perhaps, you can distinguish among many, some, few, or none.

. How much time did your delegation use in preparing for the negotiation, first, before it began, and, second, between rounds. Please try to be specific in terms of a time unit such as days, weeks, or months. What was the typical amount of time for other delegations? What was the range of time for other delegations?

. For large conferences only: To what extent was the conference secretariat active in structuring the conference and remained involved in the discussions as opposed, for example, to merely making arrangements and handling physical logistics?

. Are there any other observations about the structure of the negotiation that you would like to make?

II. Structure and Composition of the Delegations*

. What was the size of your national delegation in terms of delegates present during the plenary sessions? What was the typical size of other delegations? What was the range of sizes for other delegations?

. Was there frequent turnover of delegates? How often, during the course of the negotiation, did the chief-of-delegation change? How often were other members of the delegation replaced?

. Roughly what percentage of the delegates had specialized technical knowledge on the issues or certain aspects of the issues? How technical did the delegates have to be?

. Did the chief-of-delegation exert very much control over the other delegates? Can you tell us something about his or her "style?" For example, as primarily someone who *controls* others or as a *delegator* of responsibilities and tasks?

. Were there major differences across delegations in terms of culture and language?

. Which national agencies had representatives on your delegation? How many agencies were represented? On other delegations, were several national agencies usually represented? If so, what type and how many?

. How experienced were the delegates? For example, how many previous international negotiations did they take part in?

. Have these same delegations negotiated in other forums, on other issues? Did they reach satisfactory agreements in those negotiations?

. Would you say that the relationship among delegations was primarily friendly, neutral, or antagonistic? Cite any relationships that were particularly extreme.

. Are there any other observations about the composition of the delegations that you would like to make?

III. Bureaucratic Support Structure*

. To what extent were the delegations constrained by instructions from national agencies prior to commencement of negotiations?

.. How often were instructions received from the home office during the negotiation?

.. How much latitude did the instructions give to the delegation?

.. How often was the delegation required to report its deliberations to the home office?

. Would you say that the delegation's objectives were clearly defined or vague?

. To what extent was there disagreement among national agencies on objectives (very much, somewhat, or little)? To what extent was there disagreement on the issues?

. Who was the highest level national official paying attention to this issue? Was this negotiation high or low on his/her agenda? Did he or she keep track of developments on a regular or irregular basis?

. Were there changes of national administration during the negotiations? If so, how frequent? Did any of these changes lead to changed objectives or positions during the talks?

. Would you like to make any other observations about the functioning of the bureaucratic support structure during the negotiation?

IV, Issues

. How many major issues were on the table? Were there any minor issues; if so, how many?

. With regard to each major issue, did it change or get redefined during the course of the talks?

. Were the issues highly, somewhat, or only slightly interrelated? Were they defined as parts of a package such that trade-offs could occur?

. Was there much or little public awareness of the issues?

.. In general, around the world?

.. Within each of the countries represented at the talks?

For each major/official issue:

. Please rate each issue as being highly complex, somewhat complex, or not complex at all? Perhaps you can distinguish between technical and political complexity, by rating each of these types of complexity separately?

.. On the same rating "scale," how technical do you consider the issue in terms of needed specialized expertise on the delegations?

. How important is the issue in terms of each delegation's (or coalition's) objectives for the negotiation, as discussed earlier?

.. Would you say that there was much, somewhat, or very little agreement among the delegations on their ranking of this issue in terms of relative importance?

. Can you indicate the "size" of the differences among the delegations in their positions on this issue, e.g., very far apart, not far apart, or quite close?

. Would you say that the issue focuses primarily on differences in interests or ideologies?

. Do you have any other observations, not covered by the questions above, about the issues?

V. Analytical Support

Our goal in this section is to evaluate how information and analysis were used or could have been used to facilitate the negotiation process and enhance the joint outcome.

. What information or analytical assistance was provided to your delegation by your home office, conference secretariat, NGOs, or others -- in the planning stage and during the negotiation?

.. Did this support change over time?

.. Was it sufficient?

.. Did it have a positive/negative impact on how well your delegation fared in the negotiation outcome, in your estimation?

. Were there any special infrastructure or special staff roles assigned to gather and process information, and conduct studies and analyses, either in the home office or on the delegation - before and during the negotiation?

.. Did your delegation have the resources to collect and analyze information?

.. Was information collected by the delegation and then sent to the home office for analysis?

. What types of analyses were conducted *before or during* the negotiation? For example, (a) analyses to develop your own side's positions, strategies, and proposals, (b) analyses of the other side's positions, strategies, and proposals, or (c) analyses of possible outcomes.

(a) Analyses for own side

.. Were the analyses conducted in a formal, structured manner or an informal manner?

.. Did it have a positive/negative impact on how well your nation fared in the negotiation outcome, in your estimation? Was the information used effectively?

(b) Analyses of other side

.. Were the analyses conducted in a formal, structured manner or an informal manner?

.. Did it have a positive/negative impact on how well your nation fared in the negotiation outcome, in your estimation? Was the information used effectively?

(c) Analyses of outcomes

.. Were the analyses conducted in a formal, structured manner or an informal manner?

.. Did it have a positive/negative impact on how well your nation fared in the negotiation outcome, in your estimation? Was the information used effectively?

. In hindsight, what problems were encountered and what opportunities missed because information was not available or analyses not conducted? Was the need felt for more in-depth scientific analysis, decision support tools, etc.?

VI. The Negotiating Situation

. Was there a fixed deadline for getting an agreement? If so, how firm was the deadline?

.. If there was no official deadline, were there other types of time constraints on the delegates to come to decisions?

. With regard to publicity for the talks, was the coverage wide or limited, first, within each of the delegations' countries, and, second, more generally around the world?

. Were the talks held at a central (or capital city) or peripheral (country-side) location, or were some sessions in the city, others in the country?

. Were third-parties involved? If so, who were they: for example, mediators, international organizations, non-participating governments?

.. If there was third-party involvement, how active were they in influencing the negotiation process?

. For each delegation, were there attractive (or unattractive) alternatives to negotiating an agreement in this negotiation? Can you indicate what their alternatives may have been?

. Is there anything else that you would like to say about the negotiating situation?

VII. The Negotiating Process

. How did your delegation prepare for the talks, primarily by studying the issues or by formulating a strategy for "winning?" Did the prenegotiation period include both forms of preparation? Was this typical of how other delegations prepared? Please describe.

.. Would you say that the approach taken during the prenegotiation period consisted primarily of developing tactics for "winning" *or* developing solutions to a problem shared by other delegations who were consulted?

. To what extent did the agenda influence the way the talks were conducted, with regard to procedures and to the way the issues were discussed?

.. To what extent was the conference dominated by procedural versus substantive activities by the delegations or the secretariat?

. Were the talks directed toward achieving a comprehensive package that included all issues *or* toward partial agreements where "success" would be achieved if a few of the issues were resolved?

. Would you say that the process progressed in stages from the general to the specific or did it take a less predictable form? How would you depict the unfolding process in this negotiation?

. How would you characterize the pattern of concession-making (tit-for-tat)?

.. Were there reciprocal moves such that it was possible to gauge how much each party gave up on each issue?

.. Or, did the process consist primarily of a problem-solving debate toward the discovery of new solutions to the issues?

. Was the general shape of the agreement known in advance? Put another way, was there a framework or formula constructed from which an agreement of details could be crafted?

. To what extent did the delegates use such tactics as threats, promises, or commitments to influence their counterparts on other delegations? Often, occasionally, rarely?

. Can the negotiation be depicted as open, in other words, did the delegates reveal or conceal important information about their interests or positions? Was evasion often used in response to direct questions from other delegations?

. Anything else not covered by the questions on the process?

VIII. Negotiation Outcomes

- . What type of agreement occurred?
 - Treaty?
 - Executive agreement?
 - Non-binding resolution?
 - Explicit but informal understanding?
 - Self-restraint contingent on the other delegations' behavior?
 - Suspension with intention to reconvene?
 - Deadlock or stalemate?
 - Other not included above?

- . Of the issues you identified earlier, which were resolved? Was the agreement partial (only some issues resolved) or comprehensive (all issues resolved)?

- . How many interim agreements were reached, e.g., a framework agreement, agreement in principle, agreement on some issues contingent on other arrangements?

- . Is it possible to "calculate" gains and losses for each delegation? Can you distinguish between relatively short-term and long-term gains or losses incurred by the outcome? Who came out "best," "worst," somewhere in the middle?

- . If an agreement was reached, how long has it been in effect since concluding the talks?

- .. Were provisions made for renegotiating the agreement? How explicit were these provisions?

. Can you "rate" the outcome in terms of effectiveness? If an agreement was reached, did it serve as a genuine resolution of the issues (very effective), a settlement short of resolution (somewhat effective), or simply a way of managing the problems defined by the issues?

. Any other thoughts about the outcome?

IX. Events Outside the Negotiation

. Did non-participating governments, international organizations or nongovernmental organizations exert an influence on the talks? Was the influence helpful in terms of getting an agreement or not helpful in the sense of contributing to a stalemate?

. How would you characterize the general political relationships among the parties represented at the talks? For each pair of nations/coalitions, were relations very positive, somewhat positive, neutral, or negative?

. Were there any linkages (connections) made to other negotiating forums (a) involving the same parties or (b) involving the same issue-areas? If so, which talks?

. Did any important changes occur in international politics during the talks? Would any of these events be considered crises? Any positive changes in international relationships?

.. For each event, was it related or unrelated to the talks?

.. For each event, was it a positive or negative influence on the process or outcome?

Finally, would you like to offer other thoughts about events outside the conference that may have had an impact?

Thank you very much for your time. We will share with you any results from the analyses of the information that you and others have provided.

November 30, 1992

	PARTIES	POWER	TECH	TURNOV	SIZEDEL
	RELATE	OPEN	TREATY	COMPRE	TYPE
	PACK	STAGE	THREATS	STUDY	NMAJOR
	PACKAG	INTIDEOL	OUTSIDE	POLRELAT	LINKAGES
	NDELEGAT	PUBPRI	LENGTH	INFORMAL	PREP
	SECRETAR	INSTRUCT	LATITU	TRACK	SUPPORT
	DEADL	PUBLIC	THIRD	BATNA	AWARE
CASE 1	1.000	3.000	1.000	1.000	2.000
CASE 1	4.000	3.000	1.000	1.000	1.000
CASE 1	1.000	1.000	3.000	1.000	1.000
CASE 1	1.000	2.000	2.000	1.000	1.000
CASE 1	1.000	1.000	3.000	1.000	1.000
CASE 1	1.000	1.000	3.000	1.000	2.000
CASE 1	3.000	1.000	1.000	1.000	1.000
CASE 2	3.000	2.000	1.000	1.000	2.000
CASE 2	4.000	1.000	1.000	1.000	3.000
CASE 2	2.000	1.000	2.000	1.000	2.000
CASE 2	2.000	2.000	2.000	1.000	1.000
CASE 2	3.000	1.000	1.000	3.000	2.000
CASE 2	3.000	3.000	3.000	2.000	2.000
CASE 2	1.000	1.000	1.000	2.000	1.000
CASE 3	4.000	2.000	3.000	2.000	1.000
CASE 3	3.000	1.000	2.000	1.000	2.000
CASE 3	2.000	1.000	3.000	1.000	1.000
CASE 3	2.000	2.000	2.000	1.000	2.000
CASE 3	4.000	2.000	2.000	2.000	3.000
CASE 3	3.000	3.000	3.000	2.000	2.000
CASE 3	1.000	2.000	1.000	2.000	3.000
CASE 4	1.000	2.000	2.000	1.000	2.000
CASE 4	1.000	1.000	1.000	1.000	4.000
CASE 4	1.000	1.000	3.000	1.000	1.000
CASE 4	2.000	2.000	2.000	1.000	1.000
CASE 4	1.000	1.000	3.000	3.000	2.000
CASE 4	4.000	1.000	1.000	1.000	1.000
CASE 4	3.000	2.000	1.000	1.000	3.000
CASE 5	3.000	1.000	2.000	2.000	2.000
CASE 5	2.000	3.000	2.000	2.000	3.000
CASE 5	2.000	2.000	1.000	1.000	3.000
CASE 5	1.000	1.000	1.000	2.000	1.000
CASE 5	3.000	2.000	2.000	1.000	1.000
CASE 5	3.000	3.000	1.000	1.000	1.000
CASE 5	1.000	2.000	1.000	2.000	3.000
CASE 6	3.000	2.000	2.000	3.000	1.000
CASE 6	2.000	1.000	1.000	2.000	3.000
CASE 6	1.000	1.000	1.000	1.000	1.000
CASE 6	1.000	1.000	1.000	1.000	2.000
CASE 6	3.000	1.000	2.000	1.000	2.000
CASE 6	2.000	3.000	3.000	1.000	1.000
CASE 6	1.000	2.000	1.000	2.000	3.000
CASE 7	4.000	3.000	3.000	3.000	1.000
CASE 7	2.000	3.000	2.000	1.000	2.000
CASE 7	1.000	1.000	2.000	1.000	2.000
CASE 7	1.000	1.000	2.000	2.000	2.000
CASE 7	4.000	1.000	3.000	2.000	3.000
CASE 7	1.000	2.000	3.000	2.000	2.000
CASE 7	1.000	1.000	2.000	2.000	2.000
CASE 8	1.000	3.000	2.000	2.000	3.000
CASE 8	2.000	1.000	1.000	1.000	1.000
CASE 8	1.000	1.000	3.000	1.000	2.000
CASE 8	1.000	1.000	1.000	1.000	1.000
CASE 8	1.000	1.000	3.000	1.000	1.000
CASE 8	1.000	1.000	3.000	1.000	1.000
CASE 8	3.000	1.000	2.000	2.000	2.000
CASE 9	1.000	3.000	1.000	1.000	2.000
CASE 9	2.000	2.000	1.000	1.000	1.000
CASE 9	1.000	1.000	1.000	1.000	2.000
CASE 9	1.000	1.000	2.000	1.000	1.000
CASE 9	1.000	1.000	3.000	1.000	2.000
CASE 9	2.000	2.000	2.000	1.000	1.000
CASE 9	2.000	2.000	1.000	2.000	3.000
CASE 10	2.000	1.000	1.000	2.000	1.000
CASE 10	2.000	2.000	1.000	1.000	2.000
CASE 10	1.000	2.000	2.000	2.000	3.000
CASE 10	2.000	1.000	1.000	1.000	1.000
CASE 10	2.000	1.000	3.000	2.000	2.000
CASE 10	2.000	1.000	3.000	2.000	2.000
CASE 10	2.000	2.000	2.000	1.000	1.000
CASE 10	3.000	2.000	2.000	2.000	3.000
CASE 11	3.000	3.000	2.000	2.000	2.000
CASE 11	1.000	3.000	3.000	1.000	2.000
CASE 11	1.000	1.000	1.000	1.000	2.000
CASE 11	1.000	2.000	1.000	1.000	1.000

CASE	11	3.000	3.000	2.000	1.000	2.000
CASE	11	3.000	2.000	3.000	1.000	1.000
CASE	11	3.000	2.000	1.000	2.000	3.000
CASE	12	4.000	1.000	2.000	3.000	1.000
CASE	12	2.000	2.000	2.000	1.000	4.000
CASE	12	2.000	2.000	2.000	2.000	2.000
CASE	12	2.000	1.000	1.000	1.000	1.000
CASE	12	4.000	2.000	2.000	1.000	1.000
CASE	12	3.000	1.000	2.000	1.000	2.000
CASE	12	2.000	2.000	1.000	2.000	2.000
CASE	13	1.000	3.000	1.000	1.000	1.000
CASE	13	1.000	2.000	1.000	1.000	1.000
CASE	13	1.000	1.000	2.000	1.000	1.000
CASE	13	1.000	1.000	2.000	1.000	2.000
CASE	13	1.000	1.000	3.000	1.000	2.000
CASE	13	1.000	3.000	1.000	1.000	1.000
CASE	13	2.000	2.000	1.000	1.000	2.000
CASE	14	2.000	1.000	3.000	1.000	1.000
CASE	14	4.000	1.000	1.000	1.000	1.000
CASE	14	1.000	2.000	2.000	2.000	1.000
CASE	14	2.000	1.000	2.000	1.000	2.000
CASE	14	2.000	1.000	3.000	1.000	2.000
CASE	14	3.000	2.000	1.000	1.000	1.000
CASE	14	3.000	2.000	1.000	1.000	3.000
CASE	15	2.000	1.000	3.000	1.000	2.000
CASE	15	2.000	1.000	3.000	1.000	4.000
CASE	15	2.000	1.000	2.000	1.000	2.000
CASE	15	2.000	1.000	2.000	1.000	1.000
CASE	15	2.000	3.000	3.000	1.000	2.000
CASE	15	4.000	3.000	2.000	2.000	1.000
CASE	15	2.000	2.000	1.000	2.000	3.000
CASE	16	4.000	3.000	2.000	2.000	2.000
CASE	16	2.000	3.000	3.000	2.000	4.000
CASE	16	1.000	2.000	3.000	2.000	3.000
CASE	16	1.000	1.000	1.000	2.000	2.000
CASE	16	4.000	2.000	3.000	3.000	1.000
CASE	16	3.000	3.000	2.000	1.000	1.000
CASE	16	1.000	1.000	2.000	2.000	2.000
CASE	17	4.000	1.000	2.000	2.000	1.000
CASE	17	3.000	2.000	2.000	1.000	2.000
CASE	17	1.000	1.000	2.000	1.000	2.000
CASE	17	1.000	1.000	2.000	1.000	1.000
CASE	17	4.000	3.000	3.000	1.000	2.000
CASE	17	1.000	2.000	3.000	1.000	1.000
CASE	17	2.000	1.000	1.000	2.000	2.000
CASE	18	3.000	3.000	3.000	3.000	3.000
CASE	18	4.000	2.000	3.000	1.000	3.000
CASE	18	2.000	2.000	3.000	2.000	2.000
CASE	18	2.000	2.000	1.000	1.000	1.000
CASE	18	3.000	3.000	2.000	1.000	2.000
CASE	18	4.000	3.000	3.000	1.000	2.000
CASE	18	3.000	2.000	1.000	2.000	1.000
CASE	19	1.000	2.000	1.000	1.000	2.000
CASE	19	1.000	1.000	1.000	1.000	4.000
CASE	19	1.000	1.000	3.000	1.000	2.000
CASE	19	1.000	1.000	2.000	1.000	2.000
CASE	19	1.000	1.000	2.000	3.000	2.000
CASE	19	3.000	2.000	2.000	1.000	1.000
CASE	19	3.000	1.000	1.000	2.000	2.000
CASE	20	2.000	1.000	3.000	1.000	1.000
CASE	20	3.000	1.000	1.000	2.000	2.000
CASE	20	1.000	1.000	1.000	1.000	2.000
CASE	20	1.000	2.000	2.000	2.000	2.000
CASE	20	2.000	1.000	3.000	1.000	1.000
CASE	20	2.000	1.000	1.000	1.000	2.000
CASE	20	3.000	2.000	1.000	2.000	2.000
CASE	21	1.000	3.000	3.000	1.000	2.000
CASE	21	2.000	1.000	1.000	1.000	4.000
CASE	21	1.000	1.000	3.000	1.000	1.000
CASE	21	1.000	1.000	2.000	1.000	1.000
CASE	21	1.000	1.000	3.000	1.000	1.000
CASE	21	4.000	1.000	2.000	1.000	1.000
CASE	21	1.000	2.000	1.000	2.000	3.000
CASE	22	2.000	1.000	3.000	1.000	1.000
CASE	22	2.000	1.000	3.000	2.000	4.000
CASE	22	2.000	1.000	3.000	1.000	1.000
CASE	22	1.000	2.000	2.000	1.000	1.000
CASE	22	2.000	1.000	1.000	3.000	3.000
CASE	22	1.000	2.000	2.000	1.000	2.000
CASE	22	3.000	2.000	1.000	2.000	1.000
CASE	23	3.000	1.000	1.000	1.000	1.000
CASE	23	2.000	1.000	3.000	2.000	1.000
CASE	23	1.000	1.000	3.000	2.000	3.000
CASE	23	1.000	1.000	1.000	1.000	1.000
CASE	23	3.000	1.000	3.000	2.000	3.000
CASE	23	1.000	1.000	2.000	1.000	1.000
CASE	23	3.000	2.000	2.000	2.000	3.000

23 CASES AND 35 VARIABLES PROCESSED.
NO SYSTAT FILE CREATED.

MATRIX OF GAMMA COEFFICIENTS

	PARTIES	POWER	TECH	TURNOV	SIZEDEL
PARTIES	1.000				
POWER	-0.248	1.000			
TECH	0.291	-0.165	1.000		
TURNOV	0.788	0.173	0.283	1.000	
SIZEDEL	-0.443	0.741	-0.135	-0.091	1.000
RELATE	0.323	-0.193	0.361	0.067	-0.087
OPEN	0.376	0.451	-0.274	0.571	0.163
TREATY	0.631	-0.204	0.474	0.421	0.000
COMPRE	0.373	-0.600	0.159	0.032	-0.517
TYPE	0.155	-0.206	0.353	0.138	0.240
PACK	0.538	-0.538	0.538	0.296	0.182
STAGE	0.512	-0.412	0.159	0.680	0.049
THREATS	-0.147	0.321	0.073	0.000	0.232
STUDY	0.512	-0.412	-0.059	0.471	-0.281
NMAJOR	0.444	-0.266	-0.393	0.371	0.242
PACKAG	0.234	-0.488	0.317	0.135	0.000
INTIDEOL	-0.011	0.171	0.317	-0.278	0.296
OUTSIDE	-0.486	0.000	0.237	-0.843	-0.273
POLRELAT	0.639	0.000	0.538	0.462	-0.143
LINKAGES	0.226	0.171	0.317	0.135	-0.730
NDELEGAT	1.000	-0.248	0.291	0.788	-0.443
PUBPRI	0.702	-0.136	0.449	0.615	0.333
LENGTH	-0.391	0.192	-0.083	-0.375	-0.086
INFORMAL	0.161	-0.096	-0.228	-0.267	-0.091
PREP	0.290	-0.208	0.089	-0.051	-0.629
SECRETAR	0.027	0.016	0.409	-0.008	0.600
INSTRUCT	0.435	0.086	0.085	0.358	0.068
LATITU	0.433	0.508	0.000	0.673	0.280
TRACK	0.639	0.000	0.527	0.106	-0.143
SUPPORT	0.468	0.000	0.477	0.266	-0.288
DEADL	-0.507	-0.214	-0.168	-0.415	0.125
PUBLIC	-0.146	-0.538	0.462	-0.143	-0.478
THIRD	0.333	0.241	-0.311	0.500	-0.107
BATNA	0.867	-0.280	0.346	1.000	0.143
AWARE	-0.062	-0.278	0.071	-0.059	-0.180

	RELATE	OPEN	TREATY	COMPRE	TYPE
RELATE	1.000				
OPEN	-0.086	1.000			
TREATY	-0.047	0.389	1.000		
COMPRE	-0.046	-0.125	0.507	1.000	
TYPE	-0.294	-0.203	0.349	0.256	1.000
PACK	0.514	-0.176	0.674	0.091	0.630
STAGE	0.394	0.605	0.353	0.238	0.256
THREATS	0.019	-0.500	0.058	0.143	0.307
STUDY	0.394	0.246	0.507	0.238	-0.026
NMAJOR	-0.103	0.528	0.524	0.403	0.016
PACKAG	0.482	-0.447	0.027	-1.000	0.341
INTIDEOL	0.400	-0.162	0.173	-0.043	0.109
OUTSIDE	0.247	-0.500	-0.553	-0.655	-0.031
POLRELAT	0.064	0.729	0.333	0.882	0.186
LINKAGES	-0.048	-0.162	-0.351	0.412	-0.133
NDELEGAT	0.323	0.376	0.631	0.373	0.155
PUBPRI	0.152	0.521	0.847	-0.185	0.358
LENGTH	-0.064	0.153	-0.383	-0.310	-0.548
INFORMAL	-0.292	-0.311	0.170	0.300	0.487
PREP	-0.103	-0.340	0.394	-0.093	-0.167
SECRETAR	-0.032	-0.217	0.140	-0.368	0.709
INSTRUCT	0.113	0.218	0.382	0.171	0.214
LATITU	0.397	0.226	0.259	-0.486	-0.149
TRACK	0.490	-0.333	0.333	-1.000	0.186
SUPPORT	0.818	0.081	0.241	-0.043	0.109
DEADL	-0.081	-0.228	-0.063	-0.182	-0.302
PUBLIC	-0.289	-0.378	0.217	0.463	0.084
THIRD	-0.273	0.356	0.310	0.400	-0.412
BATNA	0.000	-0.064	1.000	1.000	0.574
AWARE	-0.448	-0.231	-0.087	0.048	-0.088

	PACK	STAGE	THREATS	STUDY	NMAJOR
PACK	1.000				
STAGE	0.529	1.000			
THREATS	-0.057	-0.242	1.000		
STUDY	0.091	0.975	0.238	1.000	
NMAJOR	0.072	0.676	-0.463	0.676	1.000
PACKAG	0.831	0.733	0.012	0.733	-0.135
INTIDEOL	0.600	-0.556	0.190	-0.556	-0.579
OUTSIDE	-0.111	-0.884	-0.100	-0.884	-0.846
POLRELAT	-0.161	0.579	-0.600	-0.034	0.852
LINKAGES	-0.647	-0.043	0.108	-0.043	-0.377
NDELEGAT	0.538	0.512	-0.147	0.512	0.444

PUBPRI	0.696	0.514	-0.295	0.288	0.429
LENGTH	-0.931	-0.158	-0.101	0.231	0.116
INFORMAL	0.143	-0.164	0.626	0.148	0.184
PREP	0.211	-0.619	0.184	-0.065	-0.212
SECRETAR	0.581	0.525	0.041	0.253	-0.033
INSTRUCT	0.690	0.391	-0.140	-0.059	0.117
LATITU	0.167	-0.486	0.364	-0.286	-0.044
TRACK	0.837	-1.000	-0.176	-1.000	-0.067
SUPPORT	0.831	-0.043	0.108	-0.043	-0.333
DEADL	-0.421	0.000	0.123	0.438	-0.019
PUBLIC	0.565	0.463	-0.391	0.463	-0.333
THIRD	-1.000	0.400	0.407	0.765	0.942
BATNA	1.000	0.034	-0.217	0.034	1.000
AWARE	-0.359	0.048	-0.301	0.048	0.074

PACKAG INTIDEOL OUTSIDE POLRELAT LINKAGES

PACKAG	1.000				
INTIDEOL	0.467	1.000			
OUTSIDE	0.053	0.448	1.000		
POLRELAT	-1.000	-0.273	-0.263	1.000	
LINKAGES	-0.333	-0.333	0.448	0.787	1.000
NDELEGAT	0.234	-0.011	-0.486	0.639	0.226
PUBPRI	0.412	0.143	-0.520	0.130	-0.419
LENGTH	-0.313	-0.680	0.316	0.405	0.143
INFORMAL	0.257	0.380	0.257	0.200	0.257
PREP	0.280	0.243	0.418	-0.475	0.243
SECRETAR	0.816	0.250	-0.054	-0.127	-0.156
INSTRUCT	0.317	-0.062	-0.116	0.255	0.494
LATITU	-0.077	0.349	-0.268	-0.481	-0.244
TRACK	0.787	0.368	1.000	0.280	0.368
SUPPORT	0.467	0.902	0.448	0.368	0.091
DEADL	0.105	0.500	-0.100	-0.667	-0.400
PUBLIC	0.647	0.200	-0.321	-0.474	-0.245
THIRD	-0.436	-1.000	-0.825	0.684	0.143
BATNA	-0.368	-0.368	-1.000	1.000	-0.368
AWARE	0.190	-0.528	-0.256	-0.176	0.012

NDELEGAT PUBPRI LENGTH INFORMAL PREP

NDELEGAT	1.000				
PUBPRI	0.702	1.000			
LENGTH	-0.391	-0.341	1.000		
INFORMAL	0.161	-0.479	-0.357	1.000	
PREP	0.290	-0.101	-0.326	0.588	1.000
SECRETAR	0.027	0.570	-0.297	0.047	-0.261
INSTRUCT	0.435	0.567	-0.571	0.122	0.317
LATITU	0.433	0.393	-0.435	-0.042	0.288
TRACK	0.639	0.318	-0.333	0.491	0.846
SUPPORT	0.468	0.016	-0.680	0.257	0.176
DEADL	-0.507	-0.224	0.222	-0.021	0.077
PUBLIC	-0.146	0.179	-0.200	-0.514	0.286
THIRD	0.333	-0.488	1.000	0.514	0.138
BATNA	0.867	1.000	-1.000	0.231	0.163
AWARE	-0.062	0.071	0.368	-0.255	0.173

SECRETAR INSTRUCT LATITU TRACK SUPPORT

SECRETAR	1.000				
INSTRUCT	0.293	1.000			
LATITU	-0.238	0.190	1.000		
TRACK	0.309	0.815	0.760	1.000	
SUPPORT	-0.149	-0.062	0.537	0.787	1.000
DEADL	-0.194	-0.656	-0.236	-0.867	-0.053
PUBLIC	0.506	0.067	-0.795	-0.474	-0.245
THIRD	-0.676	-0.311	0.276	0.111	-0.436
BATNA	0.107	0.346	0.645	1.000	0.273
AWARE	0.392	0.000	-0.426	-0.042	-0.895

DEADL PUBLIC THIRD BATNA AWARE

DEADL	1.000				
PUBLIC	0.222	1.000			
THIRD	0.071	-0.680	1.000		
BATNA	-0.667	-0.161	1.000	1.000	
AWARE	-0.200	0.785	0.053	0.042	1.000

NUMBER OF OBSERVATIONS: 23

MATRIX HAS BEEN SAVED