

1970

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An Experimental Examination of Pretrial Conference Techniques*

William Laurens Walker**

John W. Thibaut***

I. INTRODUCTION

Pretrial conferences apparently are not producing beneficial results of the magnitude predicted by their early supporters. In 1937 Professor Edson Sunderland told a joint meeting of the Judicial Section of the American Bar Association and the National Conference of Judicial Conferences that pretrial examination of cases by judges and attorneys at informal hearings "might do much to restore the confidence of the public in litigation as a desirable method of settling disputes."¹ In support of his prediction Sunderland cited the experience of the Circuit Court of Wayne County, Michigan, which in 1929 began the practice, then virtually unique, of requiring pretrial conferences. Sunderland reported that the Detroit trial court disposed of a large number of cases at the conferences and that the effect of the hearings in limiting the scope of cases which proceeded to trial was substantial. He said the value of the procedure would be realized in any court, large or small, because "it operates upon each separate case to eliminate all those matters which ought not to be permitted to take up time and cause expense at the trial."²

In 1938 the federal courts adopted the device in the form of Rule 16 of the Federal Rules of Civil Procedure,³ and since that time

* The research reported in this article was supported in part by grants from the North Carolina Law Center and the University of North Carolina Research Council.

The authors wish to thank their students, Bonnie Erickson, Robert Frey, Margaret Green and John Holmes for their substantial assistance in the design, execution and analysis of this study and the 144 participants who gave generously of their time and professional skills to make this research possible.

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1. Sunderland, *The Theory and Practice of Pre-Trial Procedure*, 36 MICH. L. REV. 215, 226 (1937).

2. *Id.*

3. The rule remains in effect today in the form of its original adoption:

In any action, the court may in its discretion direct the at-

every state has put into practice some form of pretrial. Enthusiasm remained strong as the technique spread, and in 1960 Judge J. Skelley Wright said, "I think pretrial is the salvation of the administration of justice in the Twentieth Century, because, unless we have pretrial, unless we use pretrial, litigants are going to find another way to resolve their lawsuits."⁴ But even before Judge Wright's statement doubts were being expressed,⁵ and by 1970 a distinguished federal trial judge voiced a growing and perhaps dominant point of view when he said, "As applied under current rules of various courts, pretrial procedures have resulted in useless, unnecessary, unprofitable, expenditure of time, effort and expense in the majority of litigation."⁶

The behavior of judges at pretrial probably is responsible, at least in part, for these disappointing results, but there is no clear evidence on this point because the problem has proved unresponsive to systematic investigation. The best effort to date to study judges' behavior at pretrial was made in 1960-62 by Professor Maurice Rosenberg as part of a field study designed to test the effect of pretrial procedures upon the disposition of personal injury litigation in New Jersey.⁷ Rosenberg's associates observed

torneys for the parties to appear before it for a conference to consider

- (1) The simplification of the issues;
- (2) The necessity or desirability of amendments to the pleadings;
- (3) The possibility of obtaining admissions of fact and of documents which will avoid unnecessary proof;
- (4) The limitation of the number of expert witnesses;
- (5) The advisability of a preliminary reference of issues to a master for findings to be used as evidence when the trial is to be by jury;
- (6) Such other matters as may aid in the disposition of the action.

The court shall make an order which recites the action taken at the conference, the amendments allowed to the pleadings, and the agreements made by the parties as to any of the matters considered, and which limits the issues for trial to those not disposed of by admissions or agreements of counsel; and such order when entered controls the subsequent course of action, unless modified at the trial to prevent manifest injustice. The court in its discretion may establish by rule a pre-trial calendar on which actions may be placed for consideration as above provided and may either confine the calendar to jury actions or to non-jury actions or extend it to all actions.

Fed. R. Civ. P. 16.

4. Wright, *The Pretrial Conference, Seminar on Practice and Procedure*, 28 F.R.D. 37, 141, 157 (1960).

5. See Probert, *A Survey of Ohio Pretrial Practices and Achievements*, 7 W. RES. L. REV. 428 (1956).

6. Pollack, *Pretrial Conferences*, 50 F.R.D. 449, 451 (1970).

7. The study is fully reported in M. ROSENBERG, *THE PRETRIAL CONFERENCE AND EFFECTIVE JUSTICE* (1964).

105 actual New Jersey conferences presided over by 18 judges, involving cases nearly two-thirds of which were negligence suits and the remainder of which largely involved contract actions. The objective of the project was to identify techniques actually in use among New Jersey judges and to correlate differences in performance with differences in effectiveness. The study was not productive, and Rosenberg wrote that "it is unlikely that the pretrial techniques that spell successful results can be discerned by observers and correlated generally or predictively to performance."⁸ The present article reports an effort to break this impasse by developing and demonstrating a method which allows the correlation of pretrial technique with effectiveness and which can thus produce information upon which to base suggestions for improvement.

II. EXECUTION OF THE EXPERIMENT

In June, 1970, recent law school graduates enrolled in the North Carolina Bar Review course and second and third year law students enrolled in the University of North Carolina School of Law summer session received a notice asking for volunteers to participate "in simulations of various aspects of pretrial procedures." The notice announced that "the top 25% of the participants in each of the several simulations will be paid \$10.00. There is an objective standard to determine who will be in the top 25%, and you will be competing against only those who are similarly situated in the simulations."⁹ The proposed procedure was to use these volunteers to carry out an experiment by creating three well-defined comparisons in pretrial treatment and measuring the effect of those variations on selected products of pretrial conferences.¹⁰ These comparisons and measurements are described below in the chronological order and factual setting in which they were introduced into the experience of the participants.

8. *Id.* at 110.

9. The possibility of payment was introduced to encourage participation in the research and to provide an incentive for skillful performance. See Kelley, Shure, Deutsch, Faucheux, Lanzetta, Moscovici, Nuttin, Rabbie & Thibaut, *A Comparative Experimental Study of Negotiation Behavior*, 16 J. PERSONALITY & SOC. PSYCH. 411 (1970).

10. Experimentation always involves the manipulation of one or more independent variables, here the content of the pretrial conferences, followed by measurement of the variation in one or more dependent variables, here the important products of the pretrial conferences. See generally Aronson & Carlsmith, *Experimentation in Social Psychology*, in 2 HANDBOOK OF SOCIAL PSYCHOLOGY 1 (2d ed. G. Lindzey

A. PLANNED COMPARISONS IN TREATMENT

Volunteers were scheduled to report in pairs to the Law School in Chapel Hill, where they were met by a student research assistant and taken each to separate seminar rooms. There each received a packet of materials which contained three pages of instructions, a table which resembled a bingo card and a brief questionnaire. The instructions told all participants they had been retained as counsel to represent a designated one of two brothers in a partition action to secure the division of five separate tracts of land located in a single county and owned by the two as tenants in common. The brothers, Fred and David James, were described as the only heirs of their father, Howard James, a wealthy landowner who had died several years before without a will. According to the instructions, the two brothers grew up together and the older, Fred, taught David to hunt, fish and love the land, but they became estranged when they attempted to manage jointly a business inherited from their father.

1. *High-Low Conflict*

The first comparison in treatment, introduced by the instructions, related to the degree of conflict of interest between the parties. Conflict of interest is the inevitable result of any outcome distribution problem in which the sizes of the shares are interdependent, as is the case in almost all civil suits. There is a relatively greater possibility of accommodating the interests of both parties in a situation of low conflict than in one of high conflict. For example, a condition of low conflict is approximated in an uncontested divorce action, where the chances are high that both parties will be satisfied since both wish the divorce to be granted. A condition of high conflict is approximated in a suit for money damages, where it is unlikely that both parties ultimately will be satisfied since every dollar awarded one party necessarily means a dollar lost by his opponent.

The pretrial conference device must deal with an infinite variety of situations, and this conflict of interest comparison was included in the study to allow evaluation of differences in judicial behavior against a changing substantive background. Ear-

& E. Aronson 1968); D. CAMPBELL & J. STANLEY, EXPERIMENTAL AND QUASI-EXPERIMENTAL DESIGNS FOR RESEARCH (1966); Mills, *The Experimental Method*, in EXPERIMENTAL SOCIAL PSYCHOLOGY 407 (J. Mills ed. 1969).

lier studies have shown that such situational conditions as high conflict, which produces markedly competitive behavior, or low conflict, which produces markedly cooperative behavior, will also produce marked differences in the amounts of information, the modes of social influence employed and the kinds of social norms that emerge or are adopted.¹¹ The strong effect of this variable suggested that it might usefully serve as a background for studying judicial behavior at pretrial because it seemed to have the potential of identifying broad categories of cases which would be responsive to particular pretrial treatments.

After setting the scene as explained above, the instructions for one-half of the participants continued by briefly describing each of the five tracts of land (designated 1, 2, 3, 4 and 5) and stating that the tracts had been surveyed by agreement of the parties and ten practicable dividing lines (designated A, B, C, D, E, F, G, H, I and J) had been established for each tract. Participants were told they had discussed the tracts with local real estate agents and had presented the agents' opinions and their own opinions to the client and asked him to indicate as precisely as possible his preference for each of the established division lines for each of the tracts. Participants were further instructed that the specific client preferences elicited by this question were set out in the table attached to the instructions and that their conduct of the case should be based solely on those values. They were told that the points in the tables were perfectly interchangeable abstracts of value which represented all relevant factors, including dollar value, sentimental value and advice of counsel. Finally, they were advised not to reveal specific preference values to opposing counsel.

The preference or outcome tables for the participants who received these instructions are shown below in Table 1. The instructions included an illustration referring to these tables, which was intended both to reinforce the explanation of the nature of the points and to demonstrate the use of the tables. Participants representing David James in the high conflict situation were told, "Your client has made it clear to you that he will be just as satisfied with the 24 points he would receive if tract 3 were divided

11. See Deutsch, *Conflicts: Productive and Destructive*, 25 *J. Soc. ISSUES* 7 (1969); Deutsch, *An Experimental Study of the Effects of Cooperation and Competition Upon Group Process*, 2 *HUMAN RELATIONS* 199 (1949); Deutsch, *A Theory of Cooperation and Competition*, 2 *HUMAN RELATIONS* 129 (1949); Kelley & Thibaut, *Group Problem Solving*, in 4 *HANDBOOK OF SOCIAL PSYCHOLOGY*, 1 (2d ed. G. Lindzey & E. Aronson 1968).

at point B as with the 24 points he would receive if tract 5 were divided at point G." Those representing Fred James in the same condition were told, "Your client has made it clear to you that he will be just as satisfied with the 30 points he would receive if tract 4 were divided at point E as with the 30 points he would receive if tract 5 were divided at point A." Each participant received only the table representing *his* client's preferences, but both tables are presented together in Table 1 to allow easy comparison.

Table 1. Outcome Tables for High Conflict Situation

David James						Fred James					
Tract Line	1	2	3	4	5	Tract Line	1	2	3	4	5
A	30	120	30	0	30	A	80	5	15	50	30
B	38	107	24	9	29	B	74	19	16	45	32
C	47	93	17	16	28	C	64	32	17	41	35
D	55	78	11	24	28	D	56	46	17	36	39
E	64	66	6	33	27	E	47	57	18	30	42
F	72	54	+2	41	25	F	39	69	20	22	46
G	77	47	-1	46	24	G	34	78	21	13	52
H	81	38	-5	50	22	H	28	86	23	+6	57
I	86	29	-7	56	21	I	25	96	23	-3	64
J	90	20	-10	60	20	J	20	105	25	-10	70

The instructions given the other half of the participants were the same as those described above except that the parcels of land were described somewhat differently and different outcome tables were furnished. These tables are shown in Table 2. The instructions for these participants also included an illustration based on the appropriate outcome table.

The changes in the materials created a comparison in the degree of conflict of interest existing between the participants. In both the high conflict situation and the low conflict situation, the preferences of David and Fred are in perfect opposition for each tract of land; that is, for any given tract, if the preference values increase from line to line for one brother they decrease for the other. It is this perfect negative correlation between their point outcomes within each tract that forms the basis of the conflict of interest between the parties. The critical difference between the high and low conflict situations lies in the ordering of importance of the tracts as exhibited by the range of preference values

Table 2. Outcome Tables for Low Conflict Situation

David James						Fred James					
Tract Line	1	2	3	4	5	Tract Line	1	2	3	4	5
A	30	120	30	0	30	A	70	-10	20	105	15
B	38	107	24	9	29	B	64	-3	25	96	16
C	47	93	17	16	28	C	57	+6	28	86	17
D	55	78	11	24	28	D	52	13	34	78	17
E	64	66	6	33	27	E	46	22	39	69	18
F	72	54	+2	41	25	F	42	30	47	57	20
G	77	47	-1	46	24	G	39	36	56	46	21
H	81	38	-5	50	22	H	35	41	64	32	23
I	86	29	-7	56	21	I	32	45	74	19	23
J	90	20	-10	60	20	J	30	50	80	5	25

encompassed between lines A and J. In the high conflict situation tract 2 is the most important tract for both Fred and David and tracts 1 and 4 are next most important for both of them. Only for tracts 3 and 5 is there a difference in importance; tract 5 is least important for David, while tract 3 is least important for Fred. On the other hand, in the low conflict situation the importance ordering is quite different for David and Fred. What is important for one brother tends not to be so important for the other. It is this imperfect correlation between the ordering of importance of the tracts that makes cooperative accommodations possible in the low conflict situation. It is inherent in the situation that, for any given tract, the brother for whom it is of lesser importance can at little cost to himself give much to the other for whom it is of greater importance.¹²

12. The particular structure of the situations presented to the participants was suggested by Kelley, *A Classroom Study of the Dilemmas In Interpersonal Negotiations*, in *STRATEGIC INTERACTION AND CONFLICT* 49 (K. Archibald ed. 1966). In reporting the results of a series of negotiations between members of a university class in group behavior, Kelley described a class of mixed-motive relationships which he said were best exemplified by collective bargaining negotiations between labor and management representatives but which clearly include many, perhaps most, legal disputes. Kelley described these relationships as follows: "(1) two parties have conflicts of interest with respect to a number of different issues; (2) they have different importance orderings for the several issues; and (3) each party knows only the values he places on the various possible resolutions of the conflict and has no direct means of obtaining veridical information about the other's corresponding values." *Id.* at 49. Kelley represented this class of relationships in outcome tables which posed to pairs of student negotiators the problems of reaching

After establishment of the conflict of interest comparison the instructions for all participants continued by defining the choice of whether or not to settle the partition case by stating a precise estimate of the results of the dispute if it went to trial. This element was introduced by explaining to all participants that the law provides that, if the action goes to trial and judgment, the court will either divide each tract in kind or sell all the tracts and divide the proceeds; in both cases, however, the division must be made so that each of the tenants receives approximately one-half the market value of the property. All participants were told that, in terms of their client's expressed preferences and considering additional costs, it is estimated the client would receive 195 points if the case went to trial and judgment.¹³ Participants were told to note that it is possible to divide the tracts so that the client could receive more than the 195 point "break-off" value. This is possible in part, it was explained, because the law provides that if the action goes to judgment the court must look only at the objective market value of the property and may not take into consideration the particular circumstances or preferences of the parties involved.

Finally, the instructions asked all the volunteers to complete the questionnaire enclosed in the material packets. This document was described to the participants as their law firms' "pre-trial check list," and was designed primarily to test the participants' understanding of the instructions. After twenty to thirty

agreements on five issues, each with twenty decision points of different values to the participants. Since many, perhaps most, legal disputes are in the class of relationships described by Kelley, his abstraction of that class of relationships seemed a desirable starting point for building the format of the study. See also S. SIEGEL & L. FOURAKER, *BARGAINING AND GROUP DECISION MAKING: EXPERIMENTS IN BILATERAL MONOPOLY* (1960).

13. Participants were, in effect, instructed that they should not settle in pretrial for less than 195 points. This value represents the "break-off" point or "resistance" point conceived of in collective bargaining. See R. WALTON & R. MCKERSIE, *A BEHAVIORAL THEORY OF LABOR NEGOTIATIONS* 41-45 (1965). It also corresponds to the "comparison level for alternatives" in the language of J. THIBAUT & H. KELLEY, *THE SOCIAL PSYCHOLOGY OF GROUPS* (1959). It would be expected that pretrial settlements would occur only when the amounts attained by both participants exceed the break-off point. To study the factors that lead to settlement, it is necessary that in the totality of cases studied some will and some will not be settled. Hence, in determining the number of points at which break-off values should be located, "pre-tests" were conducted in a small pilot study to discover the value that would insure settlement in roughly half the cases. That value turned out to be 195 points.

minutes for study of the instructions and completion of the questionnaires, participants were taken by the research assistant from their respective seminar rooms to the judge's chamber next to the Law School courtroom.

2. Presence-Absence of Issue Identification

The second planned comparison in treatment was made during the conferences and was designed to test the effect of issue identification activity. In particular, the variation was incorporated to test the assertion that effective pretrial conferences should open with a period of issue identification in which the judge "tells the lawyers what he thinks the issues are from their statements."¹⁴

The research assistant introduced each pair of participants to the judge,¹⁵ who then invited them to take seats at opposite sides of a conference table. The judge sat at the end of the table at approximately an equal distance from each participant. With one-half of the pairs the judge began the conferences by leading the pairs through an analysis of the issues. The essence of issue identification is the description of the pattern of individual and joint preference orderings of outcomes in legal disputes, and so, with these pairs, the judge developed for the participants a description of that pattern. This was done by first explaining to the participants that the relative importance of each tract to their clients could be determined by calculating the range of preference values for each tract. The wider the range, participants were told, the more important the tract is because a particular division will have a greater impact on the client's total gain or loss in the partition action. Participants were then asked to calculate the range for each tract and list the tracts in descending order of importance. The judge then asked participants to report this information to him orally. When this was done the judge used a simple mathematical technique to integrate the two lists and describe the tracts to the pairs in descending order of degree of dispute. In high conflict, tract 2 was most in dispute, followed by tracts 1 and 4, equally in dispute, and then tracts 3 and 5, also equally in dispute. In low conflict, tracts 2 and 4 were most in dispute, and equally in dispute, followed by tracts 1 and 3, also

14. Wright, *supra* note 4, at 144.

15. W.L. Walker acted as judge for all conferences. His behavior was carefully standardized, and his remarks were restricted to those specified in the script prepared for each planned treatment.

equally in dispute, and then tract 5. In issue identification the judge furnished one of these two descriptions, as appropriate, to all participants exposed to that treatment. The correct pattern was given regardless of the information furnished by the participants, in order to insure that the issue identification activity was uniform for all exposed to it. A second questionnaire was given participants selected for this treatment immediately after issue identification. That document's four questions were primarily intended to test participants' understanding of the experience by asking indirectly for information developed during discussion of the issues. The issue identification portions of the conference were omitted with the other half of the pairs, creating the planned variation in treatment.

3. *Wholistic-Partitive Orientation*

The third planned comparison related to the orientation given by the judge for settlement discussion and, like issue identification, was carried out during the conferences. This comparison was selected to test, in a legal setting, the recent indications of social psychological research that a package, or wholistic, orientation in bargaining and negotiation is more productive than a one-at-a-time, or partitive, orientation.¹⁶ A choice between these two orientations is made in most pretrial conferences because judges usually must decide either to press for agreement on parts of cases (partitive) or to hold open all elements for negotiation (wholistic). Will the first course of action build an atmosphere

16. Interest in the partitive-wholistic variable derives originally from Fisher, *Fractionating Conflict*, in *INTERNATIONAL CONFLICT AND BEHAVIORAL SCIENCE* 91 (R. Fisher ed. 1964), where the conception of "coupling" is given the same integrative perspective as wholistic orientation. "The considerations involved in coupling one dispute with another deserve more study. If the joining of problems is made as an offer, the process seems constructive, facilitating agreement: 'I will let you have what you want in the X dispute if you will let me have what I want in the Y dispute.' Without such bargaining it may be difficult to settle either dispute." *Id.* at 97-98. For empirical demonstrations of the effectiveness of coupling or wholistic orientation see Kelley, *supra* note 12; Thibaut & Gruder, *Formation of Contractual Agreements Between Parties of Unequal Power*, 11 *J. OF PERSONALITY & Soc. PSYCH.* 59 (1969). Kelley found that considerable experience was necessary before his subjects began spontaneously to understand the advantages of package settlement. Each of his subjects bargained with a different opponent for six sessions lasting approximately an hour and a half each. In the first session, two-thirds of all the subject pairs reached definite agreement on one issue before the other issues were settled. It was only by the third session that a bare majority of the subject pairs moved directly to attempts at package settlement.

of mutual trust which facilitates settlement? Or, is the second course of action preferable because it encourages beneficial trading among participants?

The pairs which engaged in issue identification began a discussion of settlement after answering the second questionnaire; the remaining pairs went directly to discussion of settlement. With all pairs the pretrial judge began by suggesting talk about settlement and then, with one-half of the participants, he established a wholistic orientation. This was done by immediately urging that the case be discussed as a whole and that the participants attempt to work out a package resolution of the matter. Participants were told that they obviously would have to discuss specific tracts, but they were advised not to make binding agreements until they had had the opportunity to discuss all five tracts, keeping in mind the possibility of a mutually beneficial package.

After five minutes of discussion the judge reinforced the wholistic orientation by telling the participants to keep in mind all five tracts in order to find opportunities to give and take in mutually beneficial ways. After 15 minutes total elapsed time the judge reminded the participants to continue to consider the case as a whole and attempt to solve the problem by focusing on the entire matter, looking for a package resolution. After 23 minutes the participants were told the conferences would end in two minutes, and after 25 minutes conferences were terminated.

With the other half of the participants the judge, after introducing the topic of settlement, immediately established a partitive orientation. He told the participants their discussion should focus on only one tract at a time and they should attempt to build, segment by segment, a basis for resolution. Participants were told that, if for the moment they could not reach agreement on a particular tract, they could go on to another, but they were directed that when agreement was reached on a particular tract they were expected to bind themselves in order to stake out at least that area of understanding. The pretrial judge suggested that this analytic technique might enable the participants to move step-by-step to a mutually beneficial resolution of the entire case. A similar schedule was followed in these cases as in those where a wholistic orientation was urged, the judge twice reminding the participants to continue to approach the case analytically and to focus their discussion on only one tract at a time in a step-by-step manner.

The judge thus directed half of the participants to continually discuss the case as a whole and to attempt to reach a package solution, and he told the other half to discuss only one tract at a time and attempt to move step-by-step to resolution of the problem. This created the third and last planned variation in the conferences.

4. *Integration of Variables*

The sole effect of each of the three selected comparisons is of major importance in investigating the judge's role, but it is also necessary to recognize that in actual cases particular treatments such as those planned never occur in isolation but always occur in combination with other treatments. The search for better procedures at pretrial is, in large part, a search for better combinations of procedures, and so it was necessary to hold eight types of pretrial conferences to examine all possible combinations of the six planned treatments. Each pair of participants was randomly assigned to one of these eight conditions. The types of conferences are graphically described in Table 3.¹⁷

Table 3. The Eight Types of Pretrial Conferences

		ORIENTATION	
		Wholistic	Partitive
ISSUE IDENTIFICATION	Presence	High Conflict Low Conflict	High Conflict Low Conflict
	Absence	High Conflict Low Conflict	High Conflict Low Conflict

17. Although the conflict, issue identification and orientation comparisons were suggested by diverse sources, it is important to note that they relate to one another in a meaningful, well-fitting way. The two

Each triangular cell in Table 3 represents a kind of conference. For example, the cell at the bottom and right of the large square represents conferences dealing with the high conflict situation in which issue identification was omitted and in which the judge directed the participants to discuss the issues one at a time and attempt to move step by step to settlements. This structure is described because the words "High Conflict" appear within the cell, because the bottom row is labeled "Absence" of issue identification and because the right column is labeled "Partitive" orientation.

B. MEASURED CONFERENCE PRODUCTS

At the close of the conferences all participants were given a final questionnaire designed primarily to collect information which could be used to measure the effectiveness of the conferences. The questionnaire asked all participants whether the partition case had been settled and, if so, asked them to state the points obtained for their clients. The first question provided a measure of the incidence of settlement and the second question produced information which could be used to determine the quality of the agreements which were reached. The joint sum of outcomes of conferences can be tabulated from this information by adding the total reported for each participant, and the differences in outcomes can be obtained in each case by subtracting the smaller reported total from the larger. The joint sum indicates the overall quality of a settlement because it shows the combined success of the participants in solving the problems presented for the benefit of their clients. The difference indicates the character of a settlement because it shows the inequality in result which occurred in a situation where equal opportunity existed.

The partition case was pretried nine times in each of the eight different kinds of conferences, meaning that the case was pretried 72 times by 144 participants. The pretrials were completed early in August, 1970, and the information produced by the questionnaires was coded and then punched into cards for computer-analysis.

degrees of conflict of interest define two broadly different structures of dispute which set limits on the possibilities for resolutions that are satisfactory to both parties. Within each of these conflict situations the likelihood of settlement with justice is hypothesized to be increased when the topography of the conflict is clearly delineated for the disputants (as when the judge helps to identify the issues) and when there is an encouragement to couple those issues that yield advantageous exchanges (as in the wholistic orientation).

III. VALIDITY OF THE EXPERIMENT

Before considering the findings of the study and the suggestions for improved pretrial procedures which may be drawn therefrom, it is desirable to ask whether any results which may have been obtained are valid and deserving of acceptance. Validity of experimental research should be both "external" and "internal."¹⁸ A study employing experimental method is considered internally valid if only the planned differences in treatment affected the measured products of the activity; unplanned difference in treatment must either be eliminated or distributed in a way preventing any effect on selected measures. An experiment is considered externally valid if it is believed that its results can be applied to situations other than the research situation. Both criteria are obviously important, yet they are frequently at odds, because features tending to increase one often tend to reduce the other. For example, field research is thought to have a great deal of external validity because it usually involves the observation of actual events, but typically there is little internal validity because the field setting usually makes it impossible to control unplanned differences of treatment which may substantially affect measurements. On the other hand, the internal validity of laboratory research is usually very high because it is possible to eliminate or neutralize the effect of unplanned differences, but doubt is often expressed about the applicability of traditional laboratory experimentation to actual cases because it is said to be far removed from the real world. The design objective of the pretrial study was to place the research setting at some desirable point between these extremes. Whether or not this objective was realized can best be answered by measuring specific features of the study by established validity criteria.

A. INTERNAL VALIDITY

Internal validity is an indispensable requirement for successful experimentation. Data which have been affected by extraneous, unplanned differences have no utility whatsoever. The potential number of extraneous sources of variation is infinite,

18. The basic source for the following analysis is D. CAMPBELL & J. STANLEY, *supra* note 10. The criteria for internal and external validity are discussed throughout the text, but are conveniently summarized therein; *id.* at 5-6. See also Wiggins, *Hypothesis Validity and Experimental Laboratory Methods*, in *METHODOLOGY IN SOCIAL RESEARCH* 390 (H. Blalock & A. Blalock eds. 1968).

but the most common problems confronting the experimenter can be identified. These include "history," the possibility that unplanned specific events occurring between a first and second measurement will affect results; "maturation," the possible effects of the passage of time, including aging or becoming hungry, fatigued or bored; "testing," the effect of taking a test upon the scores of a second test; "instrumentation," changes in a measuring device over a period of time; "selection," biases resulting from the assignment of participants to comparison groups, and "experimental mortality," the loss of participants before completion of research. Probably no extraneous history differences affected the pretrial conference measures because subjects were involved in the experiment for only about one hour and during that hour participants were protected from exposure to unplanned events. Likewise, maturation differences probably did not exist because the participants' experience lasted only a short period of time. No testing problem existed because participants supplied information for the reported measures only once. Instrumentation was no problem because the measuring devices were inflexible. The potential selection problem was neutralized by the random assignment of participants to the eight types of conference. There was some incidence of experimental mortality; the results of three conferences were not included in the data because it was evident the participants did not understand their instructions. The number of sessions lost was relatively small, however, and it is not likely that this rate of mortality impaired the validity of the study.

B. EXTERNAL VALIDITY

Estimation of the external validity of research is difficult because the application of findings to extra-experimental situations can never be logically justified. Generalization always involves a degree of intuitive judgment, but the history of science shows that progress can be made despite this difficulty. The practical task of estimating the general applicability of experimental results largely resolves itself into the task of estimating whether the research conditions were representative of the conditions to which it is desired to apply the findings.

To aid in this task a number of the most common problems jeopardizing external validity have been identified. They include the "interaction effect of testing," which occurs when persons given a test before exposure to an experience react differ-

ently from persons who have not been pretested; the "interaction effects of selection biases," which occur when the entire group of research participants is not representative of the general population; the "reactive effects of experimental arrangements," which occur when the research setting differs in such important ways from the nonresearch setting that findings cannot be generalized, and the "multiple-treatment inference" which occurs when participants are exposed so many times to an experience that later reactions are influenced by the prior experiences, making those results inapplicable to persons subjected only once to the experience. In the pretrial experiment there was some possibility of an interaction effect of testing because participants were asked to complete a questionnaire before their conferences. To minimize this possibility the questionnaire, as explained above, was presented to participants in the form of a pretrial checklist and justified as necessary "in order to develop a file document which may assist members of the firm assigned to the case at some later date." The possibility of a selection bias effect in the data is small. The participants were advanced law students or law graduates only weeks away from admission to the bar, and it is reasonable to believe that their behavior in the pretrial experiment was representative of the behavior of attorneys in actual cases.

A major effort was made in designing and carrying out the pretrial study to limit or eliminate the reactive effect of experimental arrangements. The physical setting for the experiment was a judge's chamber adjacent to a court room which has been used for actual court sessions. Terms such as "experiment," "research" or "psychology" were never used with the participants, and no social psychologist was in the building at any time experimental sessions were being carried out. Thus the setting had considerable physical or "mundane" realism. More important is the question of whether or not the participants were so involved in the conferences that their reactions were natural and unplanned.¹⁹ Some social psychological research has been criticized because, it is said, participants assigned simple tasks often become bored and react randomly to different treatments. Participants in the pretrial experiment, however, exhibited an unusual degree of involvement. During the conferences many appeared to be nervous. Most chose their words cautiously; some

19. The important role of experimental realism is described in Aronson & Carlsmith, *supra* note 10, at 22-26.

spoke emotionally about their client's situation or the conduct of the opposing participant. After the sessions many participants were observed discussing their experiences, and some apparently continued bargaining informally for as long as an hour. All participants were asked to state their degree of involvement on the final questionnaire, and their answers show that most felt engrossed, supporting the conclusions based on observation. This evidence suggests that the reactive effect of experimental arrangements was minimized because the study involved the participants to such an extent that it can be said the research had a high degree of extremely important "experimental" realism. Finally, the multiple treatment inference certainly did not affect the data because there was only a single exposure to the treatments. On balance, the pretrial study appears to have a considerable degree of external validity, but of course the ultimate judgment as to whether the findings can be generalized must be made by the reader.

IV. RESULTS OF THE EXPERIMENT

The measured products of the 72 conferences arranged by type of conference are shown in Table 4. An illustration will best explain this summary. What, let us ask, were the products of those nine conferences in which there was a low degree of conflict of interest, in which issues had been formally identified and in which the judge directed the participants to consider the whole case and work for a package resolution? Reading down the last column to the right, Table 4 shows eight of the nine pairs participating in this kind of conference settled the partition case; the average joint sum obtained was 427 points; and the average difference in outcomes was 14 points.²⁰ Table 4 shows the same information for the other seven types of conferences and is therefore a picture expressed in comparable quantitative symbols of 72 pretrial conferences conducted in eight different ways. As such, it is a unique and useful document. For example, comparison of the data in the last column to the right with the data in the other seven columns shows by inspection that when there was a low conflict situation, presence of issue identification, and direction to work out a package resolution relatively more cases were settled. Furthermore, in this

20. These last two measures include both those cases which did and those which did not reach settlement. In the latter cases, each party was assigned 195 points, for a joint sum of 390 points. The "difference" for such non-settled cases obviously would be zero.

kind of conference the participants generally benefited their clients, though a moderate amount of inequity occurred.

Table 4. The Measured Products of the 72 Pretrial Conferences

Measures	High Conflict				Low Conflict			
	Issue Id. Absent		Issue Id. Present		Issue Id. Absent		Issue Id. Present	
	Part. Or.	Whol. Or.	Part. Or.	Whol. Or.	Part. Or.	Whol. Or.	Part. Or.	Whol. Or.
Number of Pairs Settling	3	5	2	2	4	7	5	8
Average Joint Sum (All Cases)	395	403	393	399	395	419	403	427
Average Difference (All Cases)	3	14	4	4	6	18	10	14

A. DISCUSSION OF THE DATA

Table 4 shows some of the joint effects of the three planned variations in treatment. To cast a better light on the processes that produced these effects it may be helpful to reconstruct the sequence of events occurring in the conference. The main determinant of the ongoing process during the conference was the orientation induced by the judge toward either a step-by-step or a package method of settlement. In the latter cases, the judge encouraged the parties to avoid premature commitments to partial solutions and to proceed tentatively with a view to settling all issues simultaneously. The parties were thus able to consider divisions on particular tracts that yielded widely different outcomes to the disputants if the advantage was reversed in the division of another tract. In the former cases, the parties were urged to proceed by reaching an agreement on any one tract before moving on to consider any other tract. The immediate effect of this partitive orientation was to create a tendency for the parties to seek an equal division. If on a given tract a nearly equal division was not reached, then in dividing any subsequent tract an allocation was made that would move the parties toward a closer equality in points. Thus, allocations giving extremely different numbers of points to the two parties for any single tract were avoided.²¹ It seems probable that the preoccupation with equality of division from tract to tract in partitive orienta-

21. These contrasting orientations in procedure correspond closely to the distinction made between integrative and distributive bargaining in R. WALTON & R. MCKERSIE, *supra* note 13.

tion is attributable to the problem of trust. The party asked to accept a smaller share on any given tract is likely to wonder what assurances he has that his generosity will be reciprocated in the later division of another tract.²²

By avoiding extreme point divisions on each tract the parties inevitably prevented themselves from approaching the maximum joint sums potentially available to them. They thus reduced their chances of developing a joint sum sufficiently large to permit both parties to exceed their "break-off" points. With respect to the principal measured products of the conference, these differences between wholistic and partitive orientation lead to the following results:

a. Settlement is significantly²³ less frequent in partitive orientation than in wholistic orientation.²⁴

b. Partial settlement is more frequent in partitive orientation than in wholistic orientation; 2, 3 or 4 tracts are divided and it becomes apparent that it will be impossible for both parties to exceed their "break-off" values.²⁵

c. Even when settlement is reached, the joint sum attained by partitive orientation is smaller than that attained by wholistic orientation.²⁶

d. For these settled cases, the point-divisions are more nearly equal in partitive orientation than in wholistic orientation.²⁷

The results described above point to the precise processes by

22. It is possible, however, that equal division was prompted by an automatic, thoughtless, impulsive application of an equal division norm without considering any implications for maximizing the joint sum of points. See T. SCHELLING, *THE STRATEGY OF CONFLICT* 53-58 (1960) for a discussion of such "prominent solutions."

23. A difference is considered "significant" when an appropriate statistical analysis yields an index of a size that would occur by chance less than 5 times in 100 cases, written as " $p < .05$." Smaller " p " values give even more assurance the difference was not the result of chance. Unless otherwise indicated, all differences reported in this article are significant at least at the .05 level.

24. In partitive orientation 14 cases were fully settled; in wholistic orientation 22 cases were fully settled.

25. In partitive orientation 15 cases were partly settled; in wholistic orientation 2 cases were partly settled.

26. In partitive orientation the average joint sum attained was 405.69; in wholistic orientation the average joint sum attained was 424.74. This effect was highly significant ($p < .001$).

27. In partitive orientation the average difference in points was 14.59; in wholistic orientation the average difference in points was 20.43. This effect was also highly significant ($p < .02$).

which differences in outcomes are related to joint sums in the class of situations illustrated by the present study. In other situations, specifically those where the product is created before allocation of shares has been decided, it seems quite possible that large joint sums induce a relatively high tolerance for unequal allocations of outcomes to the participants and inadequate joint sums induce a very competitive insistence on equal division. In the present situation, however, our data and our analysis of the processes of the conference suggest the opposite direction of "causal" influence: short run insistence on equal division created a small joint sum.

Although wholistic orientation has in general a facilitative effect on settlement, the nature of the situation is also an important factor in determining whether settlement is reached. In fact, wholistic orientation operates most effectively in the context of low conflict, where the possibilities of cooperative exchanges are great.²⁸ The average joint sum for the 24 settled cases in low conflict (418.80) was significantly higher than for the 12 settled cases in high conflict (411.63). However, this difference is misleading since it reflects the somewhat higher maximum joint sum attainable in low conflict.²⁹ To adjust for this discrepancy, the portion of the joint sums in excess of the summed "break-off" values ($195 + 195 = 390$) were computed as percentages of the difference between the summed "break-off" values and the maximum joint sum (436 for high conflict and 450 for low conflict). The mean percentage values thus computed were 48% for both high and low conflict settlements. It is clear then, that while low conflict produces twice as many settlements as high conflict and while these low conflict settlements are significantly higher in absolute value than high conflict settlements, the joint sums attained in relation to the limits of attainment are not superior in low conflict settlements.

When the judge identifies the issues in dispute, the chances

28. In the high conflict situation, only 5 of 18 cases in the partitive orientation and 7 of 18 cases in the wholistic orientation were settled. Similarly, in the low conflict situation, only 9 of 18 cases in the partitive orientation were settled; however, in the wholistic orientation, 15 of 18 cases were settled.

29. The higher maximum joint sum in low conflict is *inherent* in any conception of conflict of interest between parties based on the correlation of their outcomes; that is, the difference in joint sums is not a product of the particular outcome tables used here. As the negative correlation between the two sets of outcomes increases the scatter-plot of joint outcomes becomes flatter, thus depressing the maximum joint outcomes.

of settlement are slightly increased for conferences in low conflict. However, the effect of issue identification in high conflict cases is quite the opposite: issue identification impedes settlement. This effect is even more massive when cases that were partially settled (division was agreed on for 2, 3 or 4 of the tracts) are added to those fully settled. Of the 18 high conflict cases in which issues were identified only 7 reached partial or full settlement, while 15 of the 18 cases were at least partially settled when issues were not identified. It is quite possible that when the degree of conflict is in fact quite high it is better not to know about it. Consistent with this interpretation is the finding that when issues were identified, conferences achieving settlement were characterized by discussions commencing with the most conflicted issue, which was then repeatedly joined, abandoned and rejoined. It was very hard work.

B. RECOMMENDATIONS

Specific recommendations for the conduct of pretrial conferences can be made on the basis of these data. First, the effect of the wholistic-partitive comparison strongly suggests that judges at pretrial conferences should urge attorneys to negotiate settlements by proposing and discussing package offers dealing with all issues in cases. Judges should not allow attorneys to propose and discuss piecemeal offers dealing with only one issue at a time. On the average, judges adopting a wholistic orientation will settle more cases and settle them more productively than judges adopting a partitive orientation. Apparently the major advantage of the package approach is that it encourages attorneys to yield a great deal on particular issues with the expectation of recovering their losses on others. The major disadvantage of the step-by-step technique is that it encourages roughly equal divisions of outcomes on particular issues. Though superficially equitable, the study suggests that this procedure will often guarantee a trial in a civil case because a series of equal divisions of outcomes may, in the long run, prevent the parties from reaching a settlement acceptable to both. These data suggest that local rules might well be adopted prohibiting partial settlements in civil litigation. Although the elimination of issues has long been considered a desirable effect of pretrial, it is possible that partial resolutions in fact insure the failure of efforts to settle entire cases and guarantee the need for trials.

Second, the effect of high-low conflict suggests that pretrial conferences ought not to be required in all cases. The data tend

to confirm the intuitive opinions of trial judges that the effectiveness of a pretrial conference is significantly related to the type of case involved, a point of view implicitly rejected by those states which adopted universal pretrial requirements. The major difficulty of selective pretrial is identification of cases which will respond to conferences, and efforts to solve this problem have thus far been unproductive. The strong effect of the high-low conflict comparison in the experiment suggests that it may be possible effectively to select cases for pretrial by criteria based on conflict structure rather than such traditional criteria as subject matter or amount in controversy. It seems doubtful that a comparison of contract and tort problems or small stakes and large stakes would have produced the effect on settlement that high-low conflict produced.

Third, the effect of presence or absence of issue identification suggests that pretrial should be divided into a settlement conference and a trial preparation conference or, at least, that conferences should always begin with settlement negotiations rather than discussions of the issues. The data show that the presence of issue identification does not generally facilitate settlement; indeed, in high conflict situations issue identification may actually reduce the chances for settlement. This result obtains because a detailed description of the conflict before attempts at settlement may thoroughly discourage participating attorneys or, worse, encourage them to begin discussion of settlement with the most difficult issue in the case. This first step is often disastrous.

The experiment did not produce useful information on the learning effect of issue identification but it is possible to draw from the study a rather unexpected conclusion relating to trial quality; a wholistic orientation in settlement discussions will probably result in better trials in cases where trial is necessary. The high productivity of wholistic conferences shows that the orientation encourages participants to learn for themselves much about the structure of the conflict they are dealing with. If the case is not settled, this same information will likely increase the chances a high quality trial will be held; thus the wholistic orientation plays an important role in trial preparation.

V. SUGGESTION FOR FURTHER RESEARCH

The pretrial study produced considerable useful information which appears to be reasonably valid. Based on these data, a

number of specific recommendations have been made which, if adopted, would improve the results of pretrial conferences.³⁰ But in addition to these immediate products, and perhaps more important, the pretrial study demonstrates an application of experimental method which can be used to do legal research under highly advantageous conditions. Three important comparisons in treatment were investigated with absolute freedom from the obvious difficulties and dangers of introducing variations in actual lawsuits in order to measure their effect. Furthermore, the research was carried out under controlled conditions rarely, if ever, established in traditional empirical legal research, and the project was completed, from initial planning through data analysis, within the relatively short period of one year in a convenient location for all involved. These advantages suggest that the methodology should be used to assist in the perfection of many other aspects of the legal process and that a series of investigations should now be undertaken with the dual objectives of producing useful data and establishing laboratory experimentation as a generally accepted method for doing legal research.

A wide variety of unanswered questions would likely be responsive to this type of method. For example, judges, legislators and administrative officials often must decide whether to construct rules with specific or indefinite content. Is it best to provide that motor vehicles shall not be driven "in excess of 60 miles per hour," or is it most desirable to require that motor vehicles shall not be driven "too fast for conditions"? Should courts issue specific descriptions of conditions which must have existed in order for confessions to be later admitted in evidence in criminal trials, or should they go no further than establishing the indefinite requirement that confessions have been voluntary? These two questions pose a common behavioral issue: what is the effect on conduct caused by the use

30. Definitive experiments are rare in science, and this study is no exception. If there are to be radical improvements in the conduct of pretrial conferences a number of additional matters must be studied. For example, the demonstrated method should be used to investigate such questions as whether judges themselves ought to propose settlements, whether attorneys should be required to meet together before pretrial and whether judges should meet separately with each attorney before pretrial conferences. Perhaps the experiment should be executed again with additional sessions for the participants to introduce the effect of adding the certain prospect of future negotiations. Practitioners suggest that this element often influences the disposition of an immediate case, particularly in smaller towns where attorneys are likely to deal with each other virtually on a daily basis.

of indeterminate as opposed to determinate rules? Will motorists drive more cautiously if told only not to drive too fast for road conditions? Will law enforcement officials act more responsibly if told only that confessions must be voluntary?

One of the major objectives of the legal process is the production of decisions which will endure. Social acceptance of the product of legal institutions appears to be the most important element in determining the stability of legal conflict resolution, but little is known about the conditions which must exist to generate a high degree of acceptance. It is likely that the methods used in the present research could be adapted to examine a number of important process conditions to determine their effect on the stability of conflict resolution with the objective of eventually developing a general understanding of the conditions which must exist in order to achieve maximum stability. For example, the method of announcement of legal decisions now varies from simple oral designation of the winner to delivery of lengthy written opinions. What mode tends to maximize the acceptability of results? Are reasoned decisions more effective than bare reports of outcomes and, if so, what types of reasons are most effective? As another example, how does the character of the decision-maker affect the acceptance of decisions by persons subjected to the process? Very little is known about the effect on stability of varying even such a simple element as the number of decision-makers. The legal institutions now use from one to perhaps a score of decision-makers, and it is likely that an adaptation of the methods used in the pretrial study could be employed to investigate the effect of simple differences in numbers on the acceptance of decisions by those subject to the process. The results of such a study would bear directly on the questions of whether juries of less than the traditional 12 ought to be permitted or whether three federal judges instead of one ought to hear certain classes of cases. The effect of numbers on the decision makers might also be profitably investigated. Are 12 jurors more cautious than six? Are three judges bolder than one?

It is likely that even the adversary system itself could be studied profitably. This fundamental structural characteristic of our legal process is explained today in a variety of ways. Some have suggested that an adversary presentation is the only effective means for combatting what is said to be the natural human tendency to judge too swiftly. Others have pointed out that legal institutions prohibit the use of physical force characteristic of primitive conflict resolution and have argued that the

adversary arrangement is necessary to satisfy a need still felt by all affected to participate vigorously in the resolution process. Still others have simply argued that better results will be produced in contests directed by interested parties. All of these justifications are founded on assumptions about human behavior, and these assumptions can, and should, be investigated.

