COMMENT

ADVERSARY PRESENTATION AND BIAS IN LEGAL DECISIONMAKING

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It is sometimes asserted that an adversary form of presentation, in contradistinction to an inquisitorial presentation, counteracts bias in decisionmakers. The authors conducted an experiment in which they sought to test this claim against human behavior. Their results lend some support to the proposition that an adversary presentation is an effective means of combating bias. More generally, the authors suggest the desirability and feasibility of experimentally testing the impact of procedural and substantive rules on the decisionmakers they are designed to guide.

I. INTRODUCTION

THE legal scholarly community has long excelled at subtly reasoned argument and the fine calculus of interest balancing. Yet scholars have devoted relatively little effort to perfecting experimental techniques by which the anticipated impact of their abstractions on the judges, juries and agencies they are meant to guide could be tested empirically.[1] The kind of experimental technique described in this Comment could have wide application in

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[1] For some recent psychological-legal literature, see Marshall, Marquis & Oskamp, *Effects of Kind of Question and Atmosphere of Interrogation on Accuracy and Completeness of Testimony*, 84 HARV. L. REV. 1620 (1971); Walker & Thibaut, *An Experimental Examination of Pretrial Conference Techniques*, 55 MINN. L. REV. 1113 (1971). *See generally* Jurow, *New Data on the Effect of A "Death Qualified" Jury on the Guilt Determination Process*, 84 HARV. L. REV. 567 (1971); Lawson, *Experimental Research on the Organization of Persuasive Arguments: An Application to Courtroom Communications*, 1970 LAW & SOC. ORDER 579.

carrying out such testing. In brief, the technique requires the reduction of a legal situation — involving the interaction of primary facts with abstract substantive and procedural rules — to a simplified model which can be acted out under controlled laboratory conditions. In this laboratory setting, several kinds of variables are manipulated and the consequent reactions of decision-makers and changes in the outcome of the legal conflict are precisely measured and statistically analyzed. The data from such experimentation may not yield scholars easy answers to complex legal process questions. But, as the results of the experiment reported herein seem to show, we can hope to gain some insight into those basic human characteristics with which any legal system must deal if it is to order a society in a rational fashion.

While informal means of resolving disputes are no doubt worthy of investigation, the laboratory method seems best adapted to studies of institutional modes of conflict resolution since these modes embody standardized rules and procedures that can be experimentally replicated in simplified form. In our society the courts and administrative agencies are of course the principal institutional devices for resolution of social disputes. Thus, the obvious application of the suggested laboratory method entails the simulation of a court or administrative process and the introduction of planned variations of substantive or procedural rules in a way that permits exact measurement of the effects attributable to the variations. A comparison and analysis of these effects may then facilitate identification of the combination of rules that produces, in a particular case or over a particular range of cases, results most nearly in accord with a carefully preconceived standard of performance.[2] The present Comment focuses on the use of such an experimental technique to evaluate procedural variations in a judicial context.[3] Specifically, an enormous range of procedural variations is involved in the choice between an adversary and an inquisitorial system.[4] The experiment reported in

[2] Of course, the problem of deciding what a particular rule of law or procedure ought to accomplish is a basic one. *Cf.* p. 390 & note 14 *infra.*

[3] The potential uses of similar methods to evaluate substantive rules are discussed in Walker & Thibaut, *supra* note 1, at 1134–37.

[4] The choice between adversary and inquisitorial modes is intertwined, in the first place, with the choice of type of factfinder utilized in the judicial process. *See* Kunert, *Some Observations on the Origin and Structure of Evidence Rules Under the Common Law System and the Civil Law System of "Free Proof" in the German Code of Civil Procedure*, 16 BUFF. L. REV. 122 (1966). Since the inquisitorial system relies on a skilled factfinder, a jury composed exclusively of laymen, for example, is inappropriate. Second, the role of the factfinder affects the selection of evidentiary rules. If the factfinder, as in the adversary system, is dependent

these pages was designed to compare the differing modes of presenting evidence which inhere in the two systems.

To employ a laboratory method in making this or any similar comparison, we must begin by positing conceptual ideals of the adversary and inquisitorial processes for purposes of simplified laboratory simulation. In a pure adversary system, openly biased advocates urge their clients' cases before a passive decisionmaker.[5] In a pure inquisitorial system, on the other hand, an expert decisionmaker actively investigates the claims of unrepresented litigants.[6] Thus, under the adversary model evidence is introduced alternately by two different attorneys, while under the inquisitorial model evidence for both sides is developed directly by the decisionmaker. Neither of these conceptual models in pure form is currently operating in a legal system. Indeed, both the supposedly inquisitorial continental legal systems and the avowedly adversary Anglo-American system are an intermixture of concepts taken from both procedural models.[7] Nonetheless, comparisons

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upon the parties for the development of the case, there is less need to permit him discretion freely to investigate (as well as greater danger where he is unskilled that he will give excessive weight to certain kinds of evidence), and thus hearsay, biasing evidence, and the like may be more readily excluded. *See generally* J. WIGMORE, EVIDENCE § 2483 (3d ed. 1940). Further, the choice between adversary and inquisitorial systems may determine whether certain protections, such as the presumption against guilt or the right against self-incrimination, are considered fundamental to the legal system. *See* Barrett, *The Adversary System and the Ethics of Advocacy*, 37 NOTRE DAME LAW. 479, 483 (1962). What is more, the choice of system will influence the structure of the trial, *see* Kaplan, *Civil Procedure—Reflections on the Comparison of Systems*, 9 BUFF. L. REV. 409 (1960), and may well determine the availability of pretrial discovery devices and similar extratrial mechanisms. *Cf.* J. WIGMORE, *supra* at § 1845. Finally, the choice of system will have an indirect impact on the costs of seeking legal relief and upon the timing of legal redress, *see* Kaplan, *supra* at 431–32, and on the ethical obligations of attorneys to court and client. *See* Barrett, *supra; cf.* Noonan, *The Purposes of Advocacy and the Limits of Confidentiality*, 64 MICH. L. REV. 1485 (1966).

[5] *Cf., e.g.*, F. JAMES, CIVIL PROCEDURE § 1.2, at 4–5 (1965) (United States).

[6] *Cf., e.g.*, Lacy, *"Civilizing" Non-Jury Trials*, 19 VAND. L. REV. 73, 75–82 (1965) (Austria).

[7] Present adversary systems contain a number of elements which are as much inquisitorial as adversary. For example, in the United States grand juries, coroner's inquests, and many administrative proceedings are inquisitorial in nature. *See* J. FRANK, COURTS ON TRIAL 93 (1950); Burns, *Criminal Justice: Adversary or Inquest; Did Due Process Reform the Wrong System?*, 2 LOYOLA CHI. L. REV. 249 (1971). Similarly, no continental system conforms precisely to the pure inquisitorial model. Often, for example, counsel plays a substantial role in the production of evidence and the argument of the case. *See generally* Kunert, *supra* note 4. In some systems, juries composed of judges and laymen are utilized for factfinding in criminal cases. *See* Lacy, *supra* note 6, at 75 n.7. Nevertheless, it remains true that the judge plays the major role in the conduct of the case. *See id.* at 75–82.

of the ideally drawn concepts, as in the present experiment, can be useful because choices about the details of the current systems are repeatedly made with reference to basic aspects of the pure models, and often debate about topical procedural issues is in fact debate about the relative merits of the two concepts. For example, most questions about the conduct of pretrial discovery in American criminal procedure [8] are actually questions about the desirability of modifying present practices, which are consistent with the adversary ideal, by introducing cooperative activities suggested by the inquisitorial model. Debate by civil procedure theorists and practitioners about the proper role of American judges at pretrial conferences [9] is essentially debate about whether judges ought to maintain the passive role of the adversary model or become activists as in the inquisitorial system. The same process of evaluating current procedural issues with reference to the relative merits of the two models is carried on throughout much of the world.[10]

Once differing methods of presenting evidence at trial had been chosen as the focus of the initial study here described, and once models of the two alternate procedures had been postulated, a standard still had to be selected against which the two variations could be experimentally evaluated. The method followed herein was to inquire whether a major "advantage" perceived by certain legal scholars in the adversarial form of presentation could be detected under controlled experimental conditions. It is sometimes argued by supporters of the adversary system [11] that the competi-

[8] *See generally* Note, *Prosecutorial Discovery Under Proposed Rule 16*, 85 HARV. L. REV. 994 (1972).

[9] Discussion has focused on the degree to which the judge should inject himself into the negotiating process to induce settlement or to clarify the issues and pleadings. It is feared that such involvement would bias the judge should the case go to trial, or at least would undermine the confidence of the parties in his objectivity. *Compare* Wright, *The Pretrial Conference*, in Judicial Conf. of the Tenth Circuit, *Seminar on Practice and Procedure*, 28 F.R.D. 37, 141 (1960) *with* Clark, *Objectives of Pre-Trial Procedure*, 17 OHIO ST. L.J. 163 (1956) *and* Address by the Hon. Milton Pollack to the Judicial Conf. of the Eighth Circuit, Aug. 27, 1970, in 50 F.R.D. 451 (1970). *See generally* F. JAMES, *supra* note 5, § 6.16, at 222–28.

[10] One interesting example is the current debate in the Soviet Union about the role of defense counsel in criminal proceedings. *See* Strogovich, *Adversary Proceedings and Trial Functions in Soviet Criminal Procedure*, 1 SOVIET LAW & GOVERNMENT No. 3, at 11 (1962); Comment, *The Role of Defense Counsel in Soviet Criminal Proceedings*, 1968 WISC. L. REV. 806, 824–36.

[11] Some representative commentary presenting a generally favorable picture of the adversary process is F. JAMES, *supra* note 5, § 1.2, at 3–8; Fuller, *The Adversary System*, in TALKS ON AMERICAN LAW 34 (H. Berman ed. 1971); Joint Conf. on Professional Responsibility, *Report*, 44 A.B.A.J. 1159 (1958). Such favorable views are, however, by no means universal. Critics have said, for example, that the adversary system promotes "gamesmanship" rather than truth,

tive presentation of evidence counteracts decisionmaker bias and thus produces fairer and more accurate decisions than does inquisitorial investigation.[12] This thesis has been perhaps most eloquently advanced by Professor Lon L. Fuller of the Harvard Law School. Professor Fuller's position played a key role in the design of the present experiment and is well worth restatement here: [13]

> What generally occurs in practice [as evidence is heard] is that at some early point a familiar pattern will seem to emerge from the evidence; an accustomed label is waiting for the case and without awaiting further proofs, this label is promptly assigned to it. It is a mistake to suppose that this premature cataloguing must necessarily result from impatience, prejudice or mental sloth. Often it proceeds from a very understandable desire to bring the hearing into some order and coherence, for without some tentative theory of the case there is no standard of relevance by which testimony may be measured. But what starts as a preliminary diagnosis designed to direct the inquiry tends, quickly and imperceptibly, to become a fixed conclusion, as all that confirms the diagnosis makes a strong imprint on the mind, while all that runs counter to it is received with diverted attention.
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> *An adversary presentation seems the only effective means for combating this natural human tendency to judge too swiftly in terms of the familiar that which is not yet fully known.*

The remainder of this Comment reports an experiment intended to examine in detail this claim that evidentiary presentation under the adversary model counteracts bias in decisionmakers. Of course, the existence or nonexistence of this or other similar effects — even if we could establish their presence or absence conclusively — is itself not conclusive on the issue whether adversary presentation is preferable to inquisitorial presentation.[14]

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see J. FRANK, *supra* note 7, at 90–102, and serves only to satisfy the parties that they have had their day in court, a cynical objective at best. *Cf.* C. CURTIS, IT'S YOUR LAW 3–4, 17–21 (1954).

[12] Among the other advantages often asserted for an adversary system are that advocates in the adversary model will find more facts and transmit more useful information than would be received in an inquisitorial proceeding. *See, e.g.*, Barrett, *supra* note 4, at 481. *But see* J. FRANK, *supra* note 7, at 80–102. Further, the testing of opponents' evidence through adversary cross-examination is sometimes advanced as a superior way of seeking truth. *Cf., e.g.*, J. WIGMORE, *supra* note 4, § 1362. Moreover, it is claimed that judgments produced in an adversary contest will be more acceptable to the parties. *See* Noonan, *supra* note 4, at 1486.

[13] Fuller, *supra* note 11, at 43–44 (emphasis added).

[14] The insurmountable problems encountered in using purely external criteria to decide important legal process issues have often been noted. *See, e.g.*, Tribe,

What experiments such as the present one may help to show us, however, is whether our preferences have been formulated under correct or incorrect assumptions about human behavior.

II. METHOD

A. The Research Paradigm

The procedure reported herein was designed to evaluate the Fuller hypothesis by creating a test case which was then presented to subjects for decision under a number of varying conditions. A criminal case[15] was composed turning on the question whether the defendant's violent response to an assault had been justified under all the circumstances. The case was described by a brief summary which stated that Adams and Zemp had been close friends for years. Recently, the summary continued, they had begun to gamble heavily together and, as matters became involved, had met at a tavern to discuss their relationship. After a period of conversation, Zemp knocked Adams to the floor and threw an object in his direction. Adams responded by stabbing Zemp in the stomach with a piece of glass. The summary concluded with a statement of the self-defense rule:

> The law provides that it is unlawful to use more force in repelling an attack than a *person believes necessary* or than a *reasonable person would believe necessary in the same or similar circumstances.*

Further details of the case were embodied in 50 brief factual statements, half of which were designed under a scaling technique to influence subjects to believe the response was "lawful" and half designed to suggest that it was "unlawful."[16]

Trial by Mathematics: Precision and Ritual in the Legal Process, 84 HARV. L. REV. 1329, 1391–93 (1971).

> The great difficulty . . . about the choice of legal rules and the design of legal institutions is that such rules and institutions are often significant, not only as means of achieving various ends external to themselves, but also as ends in their own right, or at least as symbolic expressions of certain ends and values.

Id. at 1391. *See also* C. FRIED, AN ANATOMY OF VALUES 125–32 (1970); E. GOFFMAN, INTERACTION RITUAL 10–11, 19, 54 (1967).

[15] Of course, in criminal trials even the adversary procedure necessarily takes on substantial "inquisitorial" aspects because a governmental official is charged with developing the evidence for conviction. Nevertheless, his presentation is countered by that of the defendant, a feature not present in the model inquisitorial procedure. *See* F. JAMES, *supra* note 5, § 1.2, at 4–5. Under the simplified conditions of the experiment, the choice of a criminal or civil context would seem likely to make little difference in the outcome.

[16] The 50 facts were selected in the following way. An initial pool of 86 factual

TABLE 1

EXAMPLES OF SCALED FACTS [17]

UNLAWFUL FACTS

As a result of the stabbing Zemp will never again be able to work as a longshoreman.

The Defendant had been in a fight the night before the stabbing and lost.

The Defendant is 6 feet tall and weighs 200 pounds; Zemp is 5 feet 8 inches tall and weighs 165 pounds.

The Defendant holds the black belt, awarded for high proficiency in karate.

Zemp is happily married and the father of four children.

LAWFUL FACTS

Zemp had been lightweight boxing champion of the First Marine Division.

As he lay on the floor, the Defendant was blinded momentarily by a strobe light in the ceiling of the tavern.

Among his gambling associates Zemp had a reputation as a "poor loser."

The Defendant was never known to have carried a gun or knife in his life.

The Defendant was somewhat nearsighted and wore glasses.

Groups of seven to twelve undergraduate students were asked to report to a designated conference room to hear and decide the test case. The subjects were met by the experimenter and given a

statements was developed to reflect a roughly even balance between facts which would sway a subject toward finding lawfulness and facts which would suggest unlawfulness. The 86 factual statements were then scaled by 69 students taken from the same University of North Carolina at Chapel Hill population as were the subjects of the experiment. The 69 participants were given the Adams-Zemp hypothetical case and the 86 statements and then were asked to indicate on a scale of one to nine the degree of lawfulness or unlawfulness each statement connoted. The factual statements were then statistically scaled using the Thurstone method of equal-appearing intervals, a technique permitting lawful and unlawful facts of approximately the same weight to be selected. *See* F. YOUNG & N. CLIFF, INTERACTIVE SCALING WITH INDIVIDUAL SUBJECTS (L. Thurstone Psychometric Lab Rept. No. 94) (1971); THURSTONE, THE MEASUREMENT OF VALUES 67–81 (1959).

[17] A complete set of lawful and unlawful facts in the order of their presentation is on file at the *Harvard Law Review*. Of course, not all the facts that were used in the experiment might be admissible in an American court of law.

written summary of the test case and self-defense rule. The subjects were then asked to take seats at a table and wait for further instructions.

B. Experimental Independent Variables

Three independent variables were introduced into this setting to evaluate differing modes of adjudication.[18] The three independent variables selected for inclusion in the experiment were adversary versus inquisitorial presentation; biased versus unbiased subjects; and an order-of-presentation variable in which either the unlawful facts were presented first followed by the lawful ones, or the reverse. These three dimensions of variation are described more fully in the following paragraphs.

1. Adversary Versus Inquisitorial Presentations. — The comparison between adversary and inquisitorial models was the focal point of the investigation. This variable was introduced by making a very simple adjustment in different presentations of the test case: the facts were announced by two persons to simulate the adversary model and by one to simulate the inquisitorial model. With half the subject groups, the experimenter began by telling the subjects they would hear a number of facts concerning the test case. The experimenter indicated whether the prosecution or defense would go first, and read the brief summary of the case to give the subjects an outline of the basic situation. The 50 factual statements were then presented in turn by two male third-year law students who sat at tables with signs bearing the words, as appropriate, "Prosecution" or "Defense." The order of facts presented remained constant within the lawful and unlawful categories and all the facts in one category were presented together by a single role player.

With the other half of the groups of subjects, the experimenter began as described above, but the 25 lawful facts and 25 unlawful facts were all presented by only one of the students in a role intended to resemble that of a *juge d'instruction* or other official investigator in an inquisitorial system. The order of facts within the lawful and unlawful categories was the same as in the adversary presentation and again all facts in one category were presented together. To be sure, it must be noted that the inquisitor was not the decisionmaker in this simulation; but in relation to the adversary simulation, considerable movement toward a

[18] As a control, a role-player variable was also introduced. To create this variable, the students impersonating defense and prosecution attorneys alternated roles and likewise took turns conducting sessions with inquisitorial presentation. For the observed impact of this variable see note 24 *infra*.

pure inquisitorial model was thought to be achieved.[19] The possibility that special psychological factors operate to counteract bias when the inquisitor is in fact the decisionmaker admittedly remains an important question unexplored by the current experiment.[20]

2. Biased Versus Unbiased Subjects. — A comparison of biased and unbiased subjects was necessary to test the claim that an adversary presentation counteracts the bias of decisionmakers who come to expect a particular result. This variable was introduced by creating in half the groups of subjects the expectation that the test case would yield a given outcome. An unlawful bias was selected as most realistic because of the substantial possibility that trial judges and, perhaps to a lesser extent, jurors may come to expect through observation that most defendants charged with crimes have acted unlawfully. To create this bias, summaries were written describing six additional assault cases generally similar to the test case. Five of the six cases were made up primarily of factual elements which had been identified as unlawful in the scaling process [21] and incorporated in the Adams-Zemp test case. The remaining assault case was constructed primarily of strong lawful elements and was included to give credibility to the procedure. Pretests of this technique indicated that it produced an expectation of unlawfulness in any further case.

After the standard preliminaries were completed, the experimenter began half the sessions (about equally divided between adversary and inquisitorial sessions) by telling the subjects they would be asked to listen to several case presentations and to make judgments about each. The six biasing cases were then read to the subjects by the experimenter. After each case the experimenter asked the subjects to indicate whether the defendant's action in the case just heard was lawful or unlawful. After the subjects had responded to each case, the experimenter told them the correct result (unlawful in five of the six cases). The remaining half of the subjects were not exposed to the biasing experience; they commenced directly to consider the Adams-Zemp test case.

3. Order of Presentation. — The third comparison, relating to the order of presentation of facts, was included to broaden the possible conclusions to be drawn from any significant results produced by the first two comparisons. The order-of-presentation variable was introduced by announcing the 25 unlawful facts first, in five groups of five facts each, to half the subjects (again divided

[19] Indeed, in practice the finder of fact in an inquisitorial system may not always be the inquisitor. *See* note 7 *supra.*

[20] *See* p. 401 *infra.*

[21] *See* note 16 *supra.*

about evenly with regard to both the biased-unbiased variable and the adversary-inquisitorial variable), followed by the 25 lawful facts also in five groups of five facts each. In the other sessions the lawful facts were presented first but with the same internal order.[22]

C. Dependent Measures

The effects of the three independent variables were measured by ascertaining the judgments of the subjects as to whether the defendant's action was lawful or unlawful. In the test case, after each of the first nine groups of five facts was presented, the subjects were asked to indicate the extent to which they currently considered the defendant's actions to be lawful or unlawful by checking a nine-point scale (nine being lawful and one being unlawful).[23] It was emphasized that these responses were to be tentative impressions. After the tenth group of facts the subjects were asked to indicate their final opinion of the case in the same manner as before.

III. Results

The three independent variables included in the experiment led to the presentation of the test case in eight types of differently structured sessions in order to explore all possible combinations of variables.[24] The mean values of the decisionmakers' *final* judgments and the number of decisionmakers who participated in each of the eight types of sessions are shown in Table 2.

TABLE 2

Mean Final Opinions (Number of Subjects in Parentheses)

Order	Biased Subjects		Unbiased Subjects	
	Inquisitorial	Adversary	Inquisitorial	Adversary
Unlawful-Lawful	3.00(13)	4.20(10)	5.53(15)	5.00(13)
Lawful-Unlawful	1.33(15)	3.13(15)	2.00(16)	3.47(19)

[22] For a general guide for assessing the validity of this and similar experiments, see Walker & Thibaut, *supra* note 1, at 1126–29.

[23] Subjects were also asked to indicate, again on a nine-point scale, how *certain* they were of their judgment after each group of facts was presented. These data were not found to be statistically significant and will not be discussed further.

[24] The differences in mean values for the role-player variable, *see* note 18 *supra*, were not found to be significant and thus this variable was not considered in the analysis of the test case.

The data shown in Table 2 [25] were analyzed statistically to determine the nature of the differences produced by each of the three independent variables. The order-of-presentation variable was found to have a "significant" impact on the final judgments of the decisionmakers.[26] The mean value on the scale of one to nine for all subjects experiencing unlawful-lawful order of presentation is 4.49, as compared with 2.47 in the lawful-unlawful sequence, a difference which is highly significant ($p < .001$). This result shows the evidence presented last, as might be expected, had a stronger influence on final judgments, moving the subjects' final judgments toward the lawful end of the scale when lawful facts were presented second, and toward the unlawful end when unlawful facts were presented second.

The biased-unbiased comparison also produced significant differences in outcome. The overall mean final judgment of biased subjects is 2.95 while that for unbiased subjects is 4.01, yielding a difference which is highly significant ($p < .01$). Thus the mean of the biased subjects, as one again would anticipate, lies toward the unlawful end of the judgmental scale, that is, in the direction of their bias. These results generate a high degree of assurance that the biasing technique was indeed successful in establishing an expectation of an unlawful outcome.[27]

The comparison of the highly stylized adversary and inquisitorial presentations was the keystone of the study. The mean final judgment for all trials using the inquisitorial mode is 2.97, as compared with 3.99 for trials using the adversary mode, and this difference is significant ($p < .013$). A further analysis shows, first, that for *unbiased* subjects the inquisitorial and adversary presentations do not clearly produce differential effects: the means are 3.76 and 4.27 respectively and these are *not* significantly different ($p < .291$). However, the terminal mean for *biased* subjects exposed to an inquisitorial presentation is 2.179, as compared with 3.625 for biased subjects exposed to an adversary presentation, and this difference is significant ($p < .011$). Thus the data from sessions composed of decisionmakers who had been exposed to the biasing experience produced the lion's share of the statistically

[25] The results for 116 subjects are compiled in Table 2. Twenty subjects were excluded from the final analysis because they either did not understand or did not manage to complete all the response forms.

[26] A difference is defined to be significant when statistical analysis yields an index of a size that would occur by chance less than five times in 100 instances (written as $p < .05$). Calculations of "p" values in the present experiment were made using multivariate analysis of variance. *See* D. MORRISON, MULTIVARIATE STATISTICAL METHODS, 159–206 (1967).

[27] *See* p. 394 *supra*.

significant difference yielded by the adversary-inquisitorial comparison.

In order to probe this latter finding, the judgmental behavior of the biased subjects over time was plotted as shown in Figures 1a and 1b, and the behavior of unbiased subjects was plotted as shown in Figures 2a and 2b. Figures 1a and 2a trace the process of judgment in subjects who were presented lawful facts before unlawful facts, and Figures 1b and 2b depict the process under the reverse presentation.

Inspection of Figures 1a and 1b shows that in both orders of presentation, when the biased subjects heard lawful facts the inquisitorial and adversary curves are generally in close proximity and similar in shape, but when the subjects heard unlawful facts markedly different behavior was observed under inquisitorial and adversary conditions. This observation is borne out by further analysis which shows that, in effect, the distances between the two curves are significantly large ($p < .015$) under unlawful facts, but not significantly so under lawful ones. Statistical analysis of the history described by Figures 2a and 2b reveals no significant differences between the curves for the inquisitorial and adversary conditions.

IV. Discussion

With respect to the final judgments, the most important result of the experiment is some empirical support for the general claim advanced by Fuller that an adversary presentation significantly counteracts decisionmaker bias.[28] The overall significant effect on final judgments exercised by the biasing experience lays the substructure for this empirical support. The associated determinations that adversary as compared with inquisitorial presentation produced an overall significant difference in final judgments and further that the significant part of that difference was produced at sessions with biased subjects permit the conclusion that Fuller's hypothesis has validity, at least under the relatively simple conditions of the experiment. The validation is given somewhat greater breadth by the significant influence of adversary presentation in both orders of presentation: the adversary mode is shown to have similar effects on final judgments regardless of differences attributable to ordering. Thus by manipulating the three reported variables (bias, mode of presentation, and order of presentation), concrete empirical data were obtained which help to support Fuller's intuitive hypothesis.

[28] *See* p. 390 *supra*.

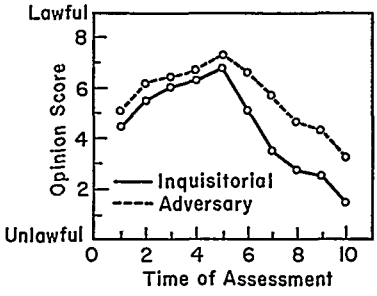

Fig. 1a. Mean opinion scores. Biased. Lawful-unlawful.

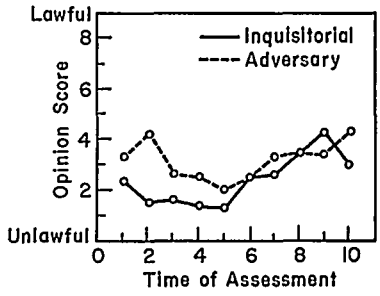

Fig. 1b. Mean opinion scores. Biased. Unlawful-lawful.

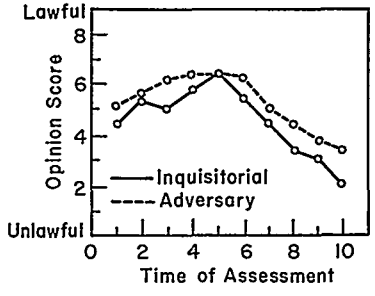

Fig. 2a. Mean opinion scores. Unbiased. Lawful-unlawful.

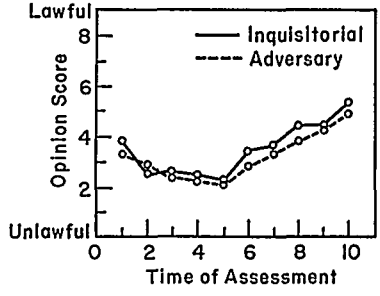

Fig. 2b. Mean opinion scores. Unbiased. Unlawful-lawful.

An explanation of the precise behavioral mechanism which produced the data is not apparent from the final results themselves. But the curves of behavior over time in Figures 1a and 1b do suggest several possible ways in which adversary presentation counteracts bias in legal decisionmaking. It is evident from a consideration of the changes in judgments of biased subjects over the 10 trials of each experiment that when unlawful facts are presented, such subjects experiencing the adversary mode make less extreme judgments than they do under the inquisitorial mode.[29] For the unbiased subjects, on the other hand, Figures 2a and 2b show that the respective behavior of subjects under the two modes does not significantly diverge during either the lawful or the unlawful presentations. Hence, a difficult question arises: how can we account for the uniquely significant moderating influence of the adversary mode on *biased* subjects receiving facts *consistent* with their bias?

One possible answer to this question lies in the framework of Brehm's theory of psychological reactance.[30] "Reactance" is conceived to be an aversive state created in the individual by any threatened loss of his freedom to act or choose. The theory hypothesizes that when reactance is aroused, the individual will take measures to protect the threatened freedom. An experiment by Worchel and Brehm[31] showed that when attempts were made to

[29] Some slight doubt is cast on this generalization by Figure 1b, where the level of the final judgment of the subjects experiencing the adversary mode is reached through a sharp rise from trial 9 to trial 10. It is only this terminal effect (accompanied by a corresponding fall in the curve for the inquisitorial mode) that produces the ultimate moderating impact of the adversary mode in the unlawful-lawful order of presentation.

Although this anomaly emerged during presentation of lawful and not of unlawful facts, still the thesis advanced in text could be more confidently asserted if the anomaly could be explained. Only the most tentative speculation can be offered in this regard. On trials 1 through 9 the subjects were invited to make impressionistic judgments on the basis of the current posture of the case. Only the last judgment was described as "final" and presumably reflected a reappraisal of all the facts. *Cf.* Jones & Goethals, *Order Effects in Impression Formation*, in ATTRIBUTION: PERCEIVING THE CAUSES OF BEHAVIOR (General Learning Press Modules 1971); Mettee, *Changes in Liking as a Function of the Magnitude and Affect of Sequential Evaluations*, 7 J. EXPER. SOC. PSYCH. 157, 167, 170 (1971). If such a reappraisal occurred, it may have been then that the differing forms of presentation had their fullest effect, and that the moderating influence experienced earlier during presentation of unlawful facts was triggered anew. For adversary subjects, a cumulation of their prior experience seemed to cause their final decision to move in a direction against their bias; for inquisitorial subjects the opposite effect is observed.

[30] *See generally* J. BREHM, A THEORY OF PSYCHOLOGICAL REACTANCE 1–16 (1966).

[31] Worchel & Brehm, *Effect of Threats to Attitudinal Freedom as a Function of Agreement with the Communicator*, 14 J. PERSONALITY & SOC. PSYCH. 18 (1970).

force subjects to endorse views that were consistent with their initial biases, the influence was strongly resisted, so vigorously by many of the subjects that they altered their views in a direction counter to their bias. Yet when influence that opposed the subjects' bias was exerted, subjects showed little or no reactance. The implication of these results for the present experiment seems clear. Biased subjects in the adversary mode may have stubbornly resisted the influence of unlawful facts, since they construed them as a threat to their freedom to entertain views opposing their bias.

But, one may ask, why should resistance to unlawful facts be the response only of subjects experiencing the adversary mode of presentation? Why should not the biased subjects in the inquisitorial mode have reacted in a similar manner? An answer to this question is suggested by another study of reactance. Jones and Brehm [32] have shown that reactance is most likely to be aroused when there are at least two obvious and plausible choices for action. In the adversary mode, the choice alternatives are given a special salience through their physical separation and embodiment in the counterposed adversary roles. The decisionmaker is presented with a clear opposition of viewpoints that dramatizes the act of choosing. In the inquisitorial mode, the act of choosing may be less clear. The decisionmaker may be influenced unobtrusively without ever being fully aware that choices are being foreclosed to him. Little or no reactance will accompany acts of influence that subtly remove freedoms that the decisionmaker scarcely knew he possessed. It should be noted, however, that alternative choices may have been somewhat more clearly presented to a decisionmaker in the present experiment, designed to suggest a borderline case of guilt or innocence, than in many actual adversary trials where the trier of fact may find one alternative, either guilt or innocence, to be relatively implausible.

Another possible insight concerning the effects on bias of the adversary system may be gained from attribution theory.[33] One might hypothesize that a legal decisionmaker in our society is under role pressure to avoid, or at least not to exhibit, bias. The

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[32] *See* Jones & Brehm, *Persuasiveness of One- and Two-Sided Communications as a Function of Awareness There are Two Sides*, 6 J. EXPER. SOC. PSYCH. 47, 49, 53 (1970) (the especial relevance of this experiment lies in its predictions and data concerning "unaware" subjects).

[33] *See generally* Jones & Davis, *From Acts to Dispositions: The Attribution Process in Person Perception*, 2 ADVANCES IN EXPER. SOC. PSYCH. 219 (1965); Kelley, *Attribution Theory in Social Psychology*, 1967 NEBRASKA SYMPOSIUM ON MOTIVATION 192.

decisionmaker's behavior might then be strongly shaped by a perceived or internalized fear that his actions could be attributed to improper motives. When he is in fact biased, he will thus, according to this analysis, be alert to any signs in his own behavior that would betray his bias. If he receives information clearly supporting his bias, he may feel himself vulnerable to attributions of bias unless he exhibits a clear and distinctive resistance to the information. On the other hand, when incoming information *opposes* the bias of a decisionmaker, he is not quite as directly threatened by possible attributions of bias and hence his behavior is relatively more similar to that of unbiased decisionmakers. Once again, the act of choosing between positions consistent and inconsistent with one's bias is less obvious in an inquisitorial setting, and a decisionmaker's perceived vulnerability to attribution of bias is consequently reduced. Thus it is principally in the adversary mode of presentation that the biased decisionmaker feels compelled to struggle to suppress any behavioral evidence that would sustain an attribution of bias. This line of reasoning, as well as reactance theory, may explain why the subjects receiving evidence consistent with their bias under an adversary form of presentation were unusually willing to counteract their bias in their decisions.

Under either explanation, it should of course be remembered that the divorce of decisionmaking responsibility from responsibility for developing the facts in the simulated inquisitorial proceedings may well have exaggerated differences between the adversary and inquisitorial modes with regard to the obviousness of the act of choosing. [34]

V. Conclusion

In terms of the legal process, this experiment suggests that an adversary, as compared to an inquisitorial, presentation of evidence may make a substantial difference in the outcome of cases. Most of the difference probably appears in situations where judge or jurors have an expectation about the final result. As a case is presented, the adversary mode apparently counteracts judge or juror bias in favor of a given outcome and thus indeed seems to combat, in Fuller's words, a "tendency to judge too swiftly in terms of the familiar that which is not yet fully known."

[34] *See* pp. 393–94 & note 19 *supra*.