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STUDENTS AS SURROGATES IN ARBITRATION STUDIES

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ABSTRACT

Much of the current research into the field of arbitration typically employs student surrogate data to test hypothesis. The authors' study places reservations upon the appropriateness of this data source for hypothesis testing by assessing the congruence of student decisions with actual arbitration awards. Training effects are demonstrated to be an intervening variable to be controlled for when comparing studies by different researchers in the field. In addition, the nature of the arbitration case itself appears to be an important determinant of student appropriateness as an arbitrator surrogate. Further research needs to explicitly controlled for training effects and differential case types in order to allow comparability of research results.

INTRODUCTION

Grievance arbitration is the dispute resolution mechanism of choice on the United States labor relations scene. Over 96% of all Collective Bargaining agreements call for arbitration at the final step (BNA, 1979). In light of this statement of public policy many notables such as Robert Colson (current president of the American Arbitration Association) have challenged scholars to uncover the underlying assumptions and relationships that go into the development of a good labor arbitration award. Indeed many a personnel manager or union representative has, especially upon losing an arbitration, questioned the underlying principles of an arbitrator's judgment.

THE PROBLEM

Only a limited amount of hypothesis testing has been attempted on the arbitration process since researchers are reluctant for many reasons to tax the limited available time of what are known as "main line arbitrators." While rather excellent efforts have been made to correlate hypothesis testing performed upon students with surveys of practicing arbitrators, the complexity of the arbitral decision making process is not sufficiently captured by these attempts. As a decision process, arbitration is worthy of study if a proper research design can be established allowing for comparability of studies and reproduction of experiments.

BACKGROUND

Arbitration is an inherently difficult phenomenon to study in an organized quantifiable manner since each arbitration is, as an event, a singularity. Each arbitration is based upon a non-random combination of an arbitrator, a specific company, a particular union and most importantly a very personal individual conflict area. The following sections will serve to give the unexposed reader some appreciation of the variability of each variable.

There are approximately 2,200 individuals registered with the American Arbitration Association in the

United States and about 800 of these individuals conduct 80% of the arbitrations held under the auspices of the AM. AAA arbitrations represent a large and growing proportion of labor grievance arbitration caseloads in the United States (17,062 in 1980) [AAA, 1982]. Additionally, the Federal Mediation and Conciliation Service, and various state supported agencies (i.e., New York State Mediation Service) provide arbitrator services to organizations in conflict. In a study conducted by Allen [1976] a survey of arbitrators indicated that the average individual conducted between 31 and 50 arbitration cases per year.

Variations in companies are perhaps as profound as variations in individual arbitrators as demonstrated by the fact that different industrial groupings tend to rely on different dispute resolution variants ranging from mediation to permanent arbitrators [Allen & Keaveny 1983].

The problem with analysis predicated on union type is compounded by the fact that local unions generally present arbitration cases with the assistance of (and the somewhat stabilizing effect of) an international representative from the national union offices. How appropriately a case may be presented is a local phenomena, but the effectiveness of a presentation may win or lose an award [Peterson, 1971].

The majority of arbitration hearings concern the discharge of an employee as a result of disciplinary action by supervision [Fossum, 1982]. Since the discharge is supported by company established work rules which vary from company to company the large number of companies that are a party to a collective bargaining agreement only serve to further increase the variability of a potential arbitration award making replication even more difficult.

As a consequence most of the significant works in the field are philosophical or case oriented in approach. Indeed works such as the classic compilation of the Saul Wallen papers by Jaffe [1974] represent the soul of the arbitration process as expressed through the thoughts of a highly successful grandmaster of the field. The case study approach represents the earliest attempt to study the process and is personified by such works ranging from *Cases in Labor Relations: An Arbitration Experience* [Abersold & Howard, 1967] to *Labor Grievances and Decisions* by Stone (1965). While single issue cases can provide the reader of the arbitration award with some insight into the general rule structure of arbitration no one who is cognizant of the field would dare to suggest that the cases have transferability to other situations. Indeed, it is a well recognized fact that arbitrators are not bound by past awards of other arbitrators as is the common practice in a court of law [Hays, 1966]. To compound the potential for variability there are several forms of arbitration available to parties in conflict ranging from ad hoc grievance arbitration to final offer arbitration.

Final offer arbitration is in its basic form the newest of the dispute resolution techniques. In an arbitration situation an unbiased individual meets

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with the parties at dispute to gather information in a quasi judicial hearing and prepares a decision known as an award to resolve the dispute. In ad hoc grievance arbitration the decision is generally held to be final and legally binding upon the parties [United Steelworkers Decisions, 1960]. A criticism of this approach is that there appears to be a tendency on the part of arbitrators to split their awards on an individual case or balance out the percentage of awards on a long run average to split evenly between awards for management and the union [Landis, 1977]. To reduce this effect the concept of final offer arbitration was developed. This approach required the arbitrator to select one or the other position of the parties with no allowance for "splitting the difference."

Starke and Notz [1978, 1981] have explored final offer arbitration as a potentially more effective variant of the standard arbitration process. The conclusions which are drawn in this series of studies in essence rest upon the conclusion that student awards in a final offer arbitration simulation are an effective surrogate measure of actual final offer arbitration effectiveness. Starke validates his surrogate data with a test of similarity between student's scores and the judgments of a group of arbitrators surveyed on a specific arbitration scenario.

THE CURRENT STUDY

Discussions in Labor Relations classes suggested to the authors of this report, that student perceptions of the "righteousness" of a situation had a considerable bearing upon the awards that they would be willing to make in a given case. The other obvious intervening variable seemed to be the treatment of the subject, i.e., how much orientation has the student received before making a surrogate arbitration award? The authors hypothesized that there should be no significant difference between student awards and real arbitration awards as a function of training in the field of arbitration. We realized that the quality of "righteousness" was related to several other factors inherent in the student which we could not control in the time frame allowed for the experiment.

In order to test these two intervening variables for possible impact on an award a selection of four test grievance situations were reproduced from Labor Grievances and Decisions [Stone, 1965]. These cases were selected by the researcher on the basis of diversity of subject matter and interest to an arbitrator. These included, The Case of the Secretive Absentee (Case 21), The Case of the Shortened Surrounding Day (Case 26), The Case of the Big Hearted Bus Drivers (Case 29), and The Case of the Pyramided Benefits (Case 30). A synopsis of the case is presented as follows:

Case #	Subject	Actual Award	Comments
21	Employee Insubordination	Union	Employee refuses to justify an absence from work
26	Holiday Pay	Union	The purpose of required pre-post holiday work days
29	Contract Interpretation	Company	Selection of the most applicable clause to determine a benefit
30	Sick Leave	Company	Adding one benefit on top of another

Subjects

Five groups of subjects were selected for study. Groups one (N=13) and two (N=14) (which were later combined for purposes of improving the strength of the statistical measures) were composed of students who had some labor relations training including arbitration studies. Group three (N=20) was comprised of labor relations students who had no background information regarding arbitration. Group four (N=13) was a group of supervisors of a local municipality who had a mean of 8.5 years of experience as supervisors but no specialized training in labor arbitration. Group five (N=35) was composed of entry level students in a Principles of Management course who had no exposure to the field of labor relations.

The arbitration scenarios were included in a package which was given to the student with instructions to complete the exercise but no other instructions were given. The completion of the exercise was not associated with grades in the course. It should be noted that this condition differs from the original experiment conducted by Starke in which students were assigned the exercise as a part of their course requirements, as well as paid for their participation in the exercise. Another significant difference in the experimental designs pertains to the amount of background material provided to the student subjects. In the original design the student was provided with a 750 word document covering aspects of one arbitration scenario. In the experimental design employed in this study the word count excluding instructions was 2,024 for an average word count of 506 per scenario.

Methodology

Since the four scenarios used in this experiment were adopted from Stone's Labor Grievances and Decisions, the "correct" award and rationale were available to the experimenter in advance. Subject responses to the four scenarios were codified as U (an award in favor of the union) and C (an award in favor of the company). Chi Square analysis was then performed upon the numbers of correct vs. incorrect responses for the five groups of subjects. Tests for equality of percent correct were conducted in Groups 1 and 2 (the two groups which had some labor relations training including arbitration studies). For all four case studies, there was no significant difference between groups one and two and hence their results were combined into one cell in order to increase the power of the X test. No attempt to combine groups three, four and five was attempted since they represented different treatment formats.

Results

As expected, the successes of the various groups of subjects varied as a function of their labor relations training or practical experience as supervisors. In the case of the Secretive Absentee, we reject the null hypothesis (at the .10 level of confidence) that there is no significant difference between the proportions of correct vs. incorrect respondents as a function of training levels. As indicated on the following collapsed table after combining groups one and two the value of chi square with 3 degrees of freedom equals 6.879.

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The Case of the Secretive Absentee (Case 21)

	Students-Labor Relations Plus Arbitration Group 1/2	Students-Labor Relations Only Group 3	Supervisors Group 4	Students No Labor Relations Training Group 5
Correct	21	10	10	17
Incorrect	6	9	3	17
Total	27	19	13	34
% Correct	77.8	52.6	76.9	50.0

$$\chi^2 = 6.879$$

In the Case of the Shortened Surrounding Day, we were unable to reject the null hypothesis (at the .10 level of confidence) that there is no significant difference between distributions of correct and incorrect responses to the scenario as a function of arbitration training or experience. Again, collapsing groups one and two, the resultant matrix of responses is as follows with a chi squared value of 1.154 with 3 degrees of freedom:

The Case of the Shortened Surrounding Day (Case 26)

	Students-Labor Relations Plus Arbitration Group 1/2	Students-Labor Relations Only Group 3	Supervisors Group 4	Students No Labor Relations Training Group 5
Correct	20	16	11	25
Incorrect	7	4	2	10
Total	27	20	13	35
% Correct	74.1	80.0	84.6	71.4

$$\chi^2 = 1.154$$

The Case of the Big Hearted Bus Driver again demonstrated a significant difference (at the .05 level of confidence) between trained versus untrained subject groups. The following table indicates that trained Individuals once again had an advantage in making more accurate arbitration awards with the chi squared value being 8.760 in this case.

The Case of the Big Hearted Bus Driver (Case 29)

	Students-Labor Relations Plus Arbitration Group 1/2	Students-Labor Relations Only Group 3	Supervisors Group 4	Students No Labor Relations Training Group 5
Correct	20	10	11	16
Incorrect	7	10	2	18
Total	27	20	13	34
% Correct	74.1	60.0	84.6	47.1

$$\chi^2 = 8.760$$

In the Case of the Pyramided Benefits, we were unable to detect any significant difference between the proportion of correct respondents as a function of their level of training. The following table portrays the results of the fourth

scenario which has a value of only .746 for our chi squared statistic.

The Case of the Pyramided Benefits (Case 30)

	Students-Labor Relations Plus Arbitration Group 1/2	Students-Labor Relations Only Group 3	Supervisors Group 4	Students No Labor Relations Training Group 5
Correct	14	7	6	13
Incorrect	13	11	7	14
Total	27	18	13	27
% Correct	51.9	38.9	46.2	48.1

$$\chi^2 = .746$$

Analysis of the data collected in this preliminary study indicates that the degree of preparation and training for making labor arbitration decisions has an impact upon respondents' ability to arrive at a correct award. In two of the four scenarios (Case #21 and Case #29) presented, training effects appear to be responsible for the significantly higher proportion of accurate decisions by the student subjects. Furthermore the experienced supervisors have a similar higher proportion of accurate decisions for these same two cases. The two low scoring student groups are not significantly different from simple random guessing by a coin toss.

In The Case of the Shortened Surrounding Day (Case #26), all groups scored higher number of correct responses and although not different from one another, they were significantly different from random guessing. The authors feel that this indicates the case was an "easier one" with issues that were understandable to even the "untrained".

In the last case, The Case of the Pyramided Benefits (Case #30), all the groups (although not significantly different from one another), seem to perform reasonably "badly." That is, there was no significant difference detected from their performance and simple guessing by a coin toss. The authors feel that this case seemed to be a "hard one" with technical issues that were not understandable even to the "trained."

DISCUSSION SECTION

Admittedly, studying the decision making process of arbitrators is a difficult task. In this study the researcher attempted to replicate a fairly common research design with an additional component of three arbitration scenarios instead of the usual single scenario. This experiment was designed to test the hypothesis that students were useful as surrogates in arbitration related studies only to the degree that several important intervening variables were carefully controlled. We did uncover a significant difference when studying the impact of the level of labor relations education in two of the total four scenarios presented. While we had expected to see some differences in awards of students as a result of the "righteousness" of the particular cases, we were unable to effectively assess which cases appeared "righteous" or not in the eyes of the students participating in the study.

One additional variable which we uncovered but did not fully control for ourselves was that of the inherent

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technical difficulty of the arbitration scenario itself. It appears that the technical difficulty associated with a case makes a significant impact upon student success in replicating the arbitration award.

In conclusion, the results seem to cast doubt over the unrestricted use of students as models for arbitrators even those trained in "labor relations." This is in contrast to other researchers' presuppositions. Rather it seems that students trained in labor relations and principles of arbitration as well as experienced supervisors are a more appropriate and accurate model for arbitration modeling.

A recommendation which seems most appropriate as a result of the study would be that future experimenters employ student surrogate data in arbitration experiments only after the students have been trained in the principles of arbitration award making.

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