# EXPLORING THE "LUMPINESS" OF GRIEVANCE ARBITRATION DECISION MAKING

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### ABSTRACT

This article examines arbitrator decision making in discipline cases involving alleged workplace violence. The basic premise of the article is that arbitrator decision making is more "lumpy" than the existing literature suggests. That is, when deciding grievances, arbitrators consider factors in combination rather than in isolation from one another. The analysis of content-coded arbitration decisions relies primarily on qualitative techniques to examine the effects of various factors on arbitration outcomes. The results suggest that arbitrators base decisions on combinations of factors. Specifically, union arguments built around the incident that gave rise to the discipline or equal protection claims are associated with union success at arbitration.

"Many years of seniority alone will not save his job. Nor will provocation, ordinarily. Nor will the fact that he struck only one blow. *It is the combination of all these factors* that has persuaded me in this case that a penalty less than discharge is called for" [1, p. 706].

The labor arbitration process has been described as "a *complex interaction* of values, facts and power" [2, pp. 71-72]. Accordingly, researchers have extensively explored the *complexity* of grievance arbitration, producing a substantial literature examining a variety of factors believed to affect grievance arbitration outcomes,

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including the facts of the grievance [3], characteristics of the grievant [4], and characteristics of the arbitrator [5].

Less explored, however, has been the *interactivity* of the grievance arbitration process. Most of the existing empirical research on labor arbitration has followed a fairly consistent methodological approach. Namely, the factors believed to impact the outcome of a case have been analyzed in isolation from one another, relying primarily on linear analysis methodology (e.g., regression analysis). Decision-making researchers, however, have long questioned whether linear models accurately represent most decision-making processes. While recognizing the value of linear modeling, decision-making researchers have suggested that nonlinear models might be "more congruent with the judge's actual thought process." The basic criticism is that linear decision-making models ignore the fact that decision making does not "always follow a neat and tidy X leads to Y pattern (linear) or several Xs lead to Y pattern (additive)" [6, p. 42].

In this article, we explore whether or not an arbitrator's decision-making process is more "lumpy" than the existing arbitration literature suggests, meaning, that when rendering a decision, arbitrators likely consider factors in combination rather than in isolation from one another. To do so, we utilize qualitative comparative analysis (QCA) which allows the researcher to capture the combinatorial/interactive nature of decision making.

In the next section, we discuss the combinatorial nature (or lumpiness) of grievance arbitration decision making—a characteristic that has been recognized in the literature, but not well reflected in existing models. We then describe the data collection process, the sample, and the variables used in the analyses. We conclude with a discussion of the relevant findings.

## THE "LUMPINESS" OF GRIEVANCE ARBITRATION

Most researchers note that arbitrators' decisions are a function of legal (i.e., related to the substance of the grievance) and non-legal factors (i.e., related to the parties and the arbitrator) [7, p. 253]. In fact, researchers note that models that only account for factors related to the substantive issues involved in the case (i.e., the legal factors) are likely to be incomplete, because legal arguments are often influenced by factors not substantively related to the dispute (i.e., non-legal factors). For example, in his study of grievances involving management subcontracting decisions, Gross finds that arbitrators appear to follow a combination of certain principles (including efficiency, economy, and good faith) when interpreting contract language related to an employer's decision of whether or not to move bargaining unit work to other employees within the plant [2, p. 68]. Similarly, Simpson and Martocchio report that "arbitrators repeatedly mentioned work history factors in association with procedural irregularities in their rationales for findings against management" in cases involving disciplinary

decisions [4, p. 256]. Arbitrators thus, appear to "lump" together certain legal factors when deciding grievance disputes.

The practitioner literature also recognizes the possibility of a "lumpy" arbitration decision-making process. In a review of grievances involving workplace violence, Gootnick notes the interaction among potentially mitigating factors (e.g., prior disciplinary record and seniority) and between these mitigating factors and the factual context of the event which resulted in an employee's violent behavior [8, p. 13]. According to Gootnick, in determining whether discharge is appropriate, arbitrators are likely to look at factors beyond the presence of violence itself. For example, an unblemished disciplinary record and the grievant's length of service are relevant considerations for arbitrators.

In short, the grievance arbitration literature acknowledges that arbitrators do not consider each factor in isolation, but rather in combination with each other; and it is these combinations that may serve as the basis for arbitrators' decisions. Yet, despite acknowledging the interaction among the factors that affect arbitrators' decisions, most existing empirical research model the arbitration decision-making process in a linear, non-interactive manner. What is needed is a methodology that better captures the "lumpiness" of the decision-making process.

Qualitative comparative analysis (QCA) allows us to more fully explore the combinatorial nature of the arbitral decision making process [9]. QCA relies on the algebra of logic and sets and can be used to identify combinations of explanatory variables that are distinctively associated with an outcome. QCA is based on the assumption that the influence of explanatory variables must be analyzed in combination with one another. That is, "QCA does not assume that the effect of explanatory variable is the same regardless of the values of other variables" [6, p. 421]. Rather, QCA identifies the combinations of variables which are essential in distinguishing among possible outcomes [9, p. 122]. QCA has been used in the analysis of a variety of phenomena, such as: decisions by police officers regarding which sexual assault complaints to investigate [6], employers' decisions on promotions to supervisory positions [10], and decisions by workers to engage in forms of worker resistance [11]. Given complexities in the workplace that give rise to grievances and the multi-faceted arguments presented by unions and employers in arbitration hearings, it is quite likely that arbitrators' decisions depend on several factors in combination.

## A QCA OF GRIEVANCE ARBITRATION DECISIONS INVOLVING WORKPLACE VIOLENCE

### Data Collection and Sample

In order to explore the combinatorial nature of the arbitration decision-making process, we apply the QCA methodology to grievance arbitration cases involving alleged workplace violence. We define workplace violence to include the "broad

range of behaviors . . . that due to their nature and/or severity, significantly affect the workplace, generate a concern for personal safety, or result in physical injury or death" [12]. Thus, our definition includes both physical and verbal forms of aggression. These types of cases were chosen for two reasons. First, aggression and violence involving employees have become major concerns for employers, unions, and employees. For example, in 2004 the Society for Human Resource Management's survey found that two-thirds of the 270 responding employers experienced some form of workplace violence [13, p. 8]. Second, in order to explore the interactivity of the issues raised in arbitration, it is helpful to limit the type of cases under analysis, so as to limit the types of factual considerations that could factor into the decision [14, p. 544].

We used three separate arbitration reporting services to locate published arbitration decisions dealing with physical and/or verbal altercations in the workplace: the Commerce Clearing House's Labor Arbitration Awards, the LRP Publications' Labor Arbitration Information System, and the Bureau of National Affairs' Labor Arbitration Reports. The decisions published in these sources are self-selected in that the arbitrator, the parties involved in the grievance, and the publishing services' editors agreed to have the decision published. This selection process has raised concerns about the use of published decisions as a data source, namely, whether published decisions are representative of all (published and unpublished) decisions. If published decisions are not representative of all arbitration decisions, research relying only on published decisions presents a skewed picture of how various factors might relate to arbitration outcomes. Stieber et al. [15] found that although there are systematic and statistically significant differences between decisions published in the BNA's Labor Arbitration Reports and those published in CCH's Labor Arbitration Awards, the differences between unpublished and published decisions were not statistically significant. In fact, they recommended that "both BNA and CCH decisions should be used" when conducting research using published arbitration decisions [15, p. 186]. Accordingly, we use both the BNA, the CCH, and the Labor Arbitration Information System, which uses selection criteria similar to those of the two other major reporting services.

Cases were selected using the indexes provided by each of these services. In general, we used entries describing cases in which there was some form of altercation (i.e., physical and/or verbal) and in which the altercation was the reason for the adverse employment action. We limited our sample to arbitration cases published in 1979, 1980, 1984, 1985, 1989, 1990, 2000, and 2001. These years were chosen arbitrarily with the only goal being to get cases covering a fairly broad time period. Our sample selection method yielded 210 cases for which arbitration awards were issued. However, our analysis is limited to the 175 cases for which there are no missing data for the variables of interest.

Each case was analyzed using a survey form prepared by the authors based on their review of prior research examining arbitrator decision making and workplace

violence. The form was used to extract standardized information about the substance and disposition of each case.[1] The readers' ability to code each variable depended on the level of detail provided in the arbitrator's opinion. While this clearly suggests some deficiency in the data collection, we are assuming that arbitrators' awards at least reference characteristics and facts that were deemed relevant to the decision. What we are able to examine, therefore, is whether the presence of specific conditions, as identified in arbitration awards, are associated with particular outcomes.

## Variables' Definitions

As with other empirical techniques, QCA requires us to first define the event of interest, as well as the factors one believes are associated with that outcome. The event of interest in our study is the outcome of the arbitrator's award. When deciding grievances involving disciplinary actions in workplace violence cases, arbitrators have the option of issuing one of three awards. Arbitrators can uphold the disciplinary measures taken against the grievant; reverse the disciplinary action; or find that not only did the employee deserve some form of punishment, but also that the punishment imposed by the employer was too severe. Grievance arbitration research has traditionally counted cases involving reversals of the employer's disciplinary action in whole or in part as a union victory [7, p. 255]. Accordingly, we code the outcome event as union win (UWIN) for those cases in which the arbitrator finds in favor of the grievant in whole or in part, and as a union loss for those cases in which the arbitrator upholds the employer's disciplinary action in full.

Having selected the outcome, we then identify the causal conditions we believe to relate to the arbitration outcome. Because the cases involve discipline and discharge disputes following alleged workplace violence, we focused on whether or not various types of challenges, mostly involving the establishment of just cause, were raised at arbitration [14, p. 544]. In their seminal article on the definition of just-cause, Abrams and Nolan define "just-cause" to include three major components: industrial due process, industrial equal protection, and individualized treatment [16]. In order to capture these factors, we constructed four dummy variables.

Industrial due process refers to the notion that before imposing disciplinary sanctions, employers are expected to conduct timely, full, and fair investigations where all available evidence is considered [17, p. 74]. The category *due process* captures whether challenges to the disciplinary action were made

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[1] A second year law student, who was serving as a research assistant to the lead author, read and coded the cases. A detailed set of scoring rules were designed by the authors and given to the research assistant. The lead author also read random cases to check the student's application of scoring rules.

based on the failure by the employer to satisfy due process requirements. In the analyses, *due process* is coded as "1" where the arbitrator's decision is based on anyone or more of the following: lack of evidence to justify the discipline, no prior investigation by the employer, and/or lack of notice regarding the alleged violation.

*Equal protection* captures whether or not challenges to the disciplinary action were made based on how the discipline compares to prior instances of disciplinary action. Industrial equal protection requires that the employer acts in an even-handed and non-discriminatory fashion when enforcing disciplinary rules [17, p. 71]. *Equal protection* was coded as "1" when any of the following arguments was discussed in the opinion: whether the discipline was proportionate to the violation or whether the employer treated the employee discriminatorily or inconsistently as compared to similarly situated employees.

*Incident* captures arguments related to the relative factual strength of the case against the grievant [18, p. 70]. Parties to a grievance often construct arguments based on the facts of the case in order to frame the facts in a light favorable to their positions. For example, a union might argue that the disciplinary action is not warranted because the grievant was provoked or was acting in self defense and without premeditation. Similarly, a union might argue that the alleged incident of violence did not occur in the workplace and, thus, should not be the subject of a disciplinary action. Finally, a union might argue that disciplinary action is inappropriate because the grievant's actions were common in the workplace (and thus have become an acceptable practice) or because the grievant's actions did not result in any serious harm. *Incident* is coded as "1" when any of the above arguments was discussed in the arbitrator's opinion.

Finally, *work history* captures whether or not the disciplinary action was challenged based on the grievant's work history [4, p. 254]. The grievance arbitration literature notes the importance of factors such as the service record of the employee, as well as the employee's seniority, when evaluating the appropriateness of a disciplinary action. Prior research finds that both seniority and the service history factors significantly affect arbitrators' decisions in disciplinary cases and that employees' prior disciplinary and job performance records were particularly important [4, p. 262]. *Work history* is coded as "1" when arguments regarding the grievant's seniority, prior disciplinary record, or job performance were discussed in the arbitrator's decision.

The basic premise of this study is that when deciding cases, arbitrators are confronted with a variety of issues, and they consider issues in combination rather than in isolation from one another. The objective of QCA is to identify the combinations of factors that exist in the data and determine how they relate to arbitration outcomes. Based on prior grievance arbitration research, we expect that each of the four causal conditions described above, either alone or in combination, may serve as the basis for arbitrators' decisions.

## ANALYSES

### QCA Analysis

QCA starts with the creation of a "truth table," like the one in Table 1, listing all combinations of causal conditions and associated outcomes that are present in our data. Each row of the "truth table" represents a different combination of the four condition variables we identified earlier. The last three columns in Table 1 contain the total number of cases represented in each combination, and the breakdown for those cases decided in favor of the union and those decided in favor of the employer.

Table 1. All Combinations Represented in the Data

| | Explanatory factors | | | | | | |
|---|---|---|---|---|---|---|---|
| Row | INCIDENT | DUE PROCESS | EQUAL PROTECTION | WORK HISTORY | No. of cases | Award for union | Award for employer |
| 1 | 0 | 1 | 0 | 0 | 24 | 11 | 13 |
| 2 | 1 | 1 | 0 | 0 | 23 | 16 | 7 |
| 3 | 0 | 1 | 1 | 0 | 22 | 11 | 11 |
| 4 | 1 | 0 | 0 | 0 | 18 | 9 | 9 |
| 5 | 1 | 1 | 1 | 0 | 17 | 10 | 7 |
| 6 | 1 | 0 | 0 | 1 | 14 | 9 | 5 |
| 7 | 1 | 0 | 1 | 1 | 10 | 4 | 6 |
| 8 | 1 | 0 | 1 | 0 | 10 | 3 | 7 |
| 9 | 0 | 0 | 1 | 0 | 9 | 6 | 3 |
| 10 | 1 | 1 | 1 | 1 | 7 | 2 | 5 |
| 11 | 0 | 1 | 0 | 1 | 7 | 0 | 7 |
| 12 | 1 | 1 | 0 | 1 | 6 | 5 | 1 |
| 13 | 0 | 1 | 1 | 1 | 5 | 4 | 1 |
| 14 | 0 | 0 | 0 | 1 | 2 | 0 | 2 |
| 15 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Total | 8 | 8 | 8 | 8 | 175 | 91 | 84 |

Table 1 shows that 15 out of a possible 16 combinations are present in our sample,[2] indicating that the variables we use appear to be captured by the types of arguments made to, and considered by, arbitrators when deciding grievances involving workplace violence. The results of Table 1 also indicate that some of the combinations appear more frequently than others. For example, the first four combinations listed in Table 1 accounted for 50 percent of all the cases and the first seven configurations accounted for over two-thirds (67 percent) of all cases.

The results of Table 1 also indicate that the various combinations resulted in very different outcomes. That is, unions appear to be more successful when presenting certain types of arguments, while employers appear to be more successful when different types of arguments are made. For instance, of the 15 combinations reflected in our sample, three (representing 10 out of 175 individual cases) result in either a union victory or an employer victory every time that combination appears. One combination was uniquely associated with awards favoring unions (e.g., row 15) and two were uniquely associated with awards favoring employers (e.g., rows 11 and 14).

Most of the combinations, however, result in contradictory outcomes in the sense that they are associated with some union and some employer victories. Even among these 12 combinations some clear tendencies appear. Six of the 12 combinations for which there were contradictory outcomes had more union favorable outcomes. In fact, unions won 68 percent of the cases included in the six predominately pro-union combinations (i.e., the combinations listed in rows 2, 5, 6, 9, 12, and 13). This rate is considerably higher than the 52 percent win rate for unions in the sample overall. On the other hand, employers won a large majority of cases in four of the 12 contradictory combinations (i.e., the combinations listed in rows 1, 7, 8, and 10). Employers won 60 percent of the cases involving these four combinations.

The results in Table 1 indicate that certain combinations account for a large segment of the cases in our sample, suggesting that certain kinds of arguments appear to predominate in arbitrators' decisions involving alleged workplace violence. Further, the results of Table 1 suggest that certain combinations appear more likely to result in union victories, while others appear more likely to result in management victories.

QCA allows us to further refine these results. Using data in Table 1 and counting each combination where unions won at least 51 percent of cases as a

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[2] The possible total number of combinations depends on the outcome variable (a dichotomous variable in our case) and the number of factors (four in our case), for a total of $2^4$ or 16 combinations.

positive outcome,[3] QCA uses Boolean algebra to simplify the pro-union combinations into a "prime implicant equation." This is done by applying the minimization rule:

> If two Boolean expressions differ in only one causal condition yet produce the same outcome, then the causal condition that distinguishes the two expressions can be considered irrelevant and can be removed to create a simpler, combined expression [9, p. 93].

This analysis produces a series of "reduced terms" which summarize the truth table configurations for union favorable arbitration decisions. Table 2 presents these results.

The second column of Table 2 lists the reduced terms for Table 1. In reporting the configurations, we use conventional QCA notation. Conditions presented in capital letters represent the presence of a particular factor, while lowercase letters represent the absence of a factor. The factors in each configuration (rows) are joined by an asterisk, where the asterisk indicates an "and," and each configuration is joined to another with "+" indicating "or." The table also provides the total number of cases and the number of pro-union awards for each configuration, as well as the percentage of pro-union awards in cases where the configuration is present and in cases where the configuration is absent.

As seen in Table 2, there are four reduced terms. Each term (row) represents a different configuration. The various conditional configurations presented in Table 2 can be thought of as profiles of the types of physical or verbal altercation cases that tend to be won by unions at arbitration. For example, the first row indicates that unions are likely to win workplace violence cases when arbitrators consider arguments regarding the incident that gave rise to the disciplinary actions (INCIDENT) and challenges based on due process considerations (DUE PROCESS), even when no challenge is raised regarding the grievant's work history (work history). This combination, INCIDENT*DUE PROCESS (without

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[3] Since we are interested in identifying the configurations related to a union victory, the analysis reported in Table 2 only includes combinations in which the union won more than 51 percent of cases (see Table 1). These combinations account for 76 of the 175 cases in our sample. Of course, we could perform the analysis using different decision rules. For example, one could code a combination as "positive" (i.e., meaning that the combination results in union favorable outcomes) if the combination resulted in at least one union victory. However, this approach counts as a union favorable combination a situation like that represented in row 8 in Table 1 in which only three out of 10 awards favored the union. Alternatively, one could code a combination as "positive" only in situations that always produce a union favorable decision. This approach is also a bit extreme since it ignores situations where a union victory is likely but not certain, for example, the combination represented in row 1 of Table 1 which resulted in a union victory 70 percent of the time. We assert that we are taking a "middle-ground" approach.

Table 2. Reduced Configurations

| (1) Row | (2) Configurations* | (3) Total no. cases | (4) Pro-union awards | (5) Pro-employer awards | (6) % Pro-union awards in cases when configuration present | (7) % of pro-union awards in cases when configuration absent** |
|---|---|---|---|---|---|---|
| 1 | INCIDENT * DUE PROCESS * work history + | 40 | 26 | 14 | 65 | 48.1 |
| 2 | INCIDENT * WORK HISTORY * equal protection + | 20 | 14 | 6 | 70 | 49.7 |
| 3 | EQUAL PROTECTION * due process * incident + | 10 | 7 | 3 | 70 | 50.9 |
| 4 | EQUAL PROTECTION * WORK HISTORY * incident | 6 | 5 | 1 | 83.3 | 50.9 |
| | Total All Configurations | 76 | 52 | 24 | 68.4 | 40 |

*The analysis is produced using the Quine-McCluskey algorithm in the fs/QCA program by Drass and Ragin available at Fs/QCA Program http://www.u.arizona.edu/~cragin/fsQCA/software.shtml.

**Figure is the percentage of pro-union awards among those cases not falling in the specific configuration. For example, there were 65 pro-union awards among the 135 cases which did not fall under the "INCIDENT * DUE PROCESS * work history" configuration, for a total of 48.1 percent.

work history) is, in fact, the most common combination and led to union victory in 65 percent of the cases in which it appeared.

Examination of all the four configurations reported in Table 2 reveals that unions win between 65 to 83 percent of the time when one of these configurations is present compared to roughly 40 percent of cases where the configuration conditions are absent.

An examination of the reduced configurations of Table 2 reveals the presence of some common elements that permit them to be further simplified as:

(1)  Union Wins = INCIDENT (DUE PROCESS*work history +
                  WORK HISTORY* incident) +

                  EQUAL PROTECTION {incident (due process +
                  WORK HISTORY)}

The structure of this equation shows that union-favorable arbitration awards in grievances can be categorized into two major groups, one with INCIDENT as a present condition and the other with EQUAL PROTECTION as a present condition. That is, the various configurations in Table 2 center either around an *incident-based* or an *equal protection-based* argument.

Arguments related to the event that led to the disciplinary action (INCIDENT) are raised in 60 of the 76 cases (79 percent) summarized in Table 2. However, as the above equation makes clear, this type of argument is usually not raised by itself, but in conjunction with other arguments. In contrast, arguments built on claims of equal protection violations by the employer (EQUAL PROTECTION) were less common (21 percent of cases), but collectively resulted in a higher percentage of union wins at arbitration. They were also made in the absence of arguments related to the grievance incident (incident). It is also interesting to note that the grievant's work history (WORK HISTORY) and due process claims (DUE PROCESS) never appear together in any of the reduced configurations, but each are used separately with arguments related to the grievance incident (INCIDENT) or equal protection claims (EQUAL PROTECTION) to overturn management's disciplinary actions.

### Additional Analyses

To further assist in the interpretation of these figures, columns (6) and (7) in Table 2 provide the percentage of pro-union awards in cases where each configuration was present, along with the percentage of pro-union awards where the configuration is absent. Clearly, unions had much higher win rates when each configuration was present compared to when it was absent. But are these differences statistically significant?

We examine the significance of the configurations using logistic regression [11, p. 26]. For comparison purposes, we first regress UWIN on the four configurations identified in Table 2. Each configuration is measured as a dichotomous

variable indicating whether all the items in a given configuration are present in a particular arbitration decision. The variables CONFIG1, CONFIG2, CONFIG3, and CONFIG4 represent each of the reduced configurations found in Table 2. We then regress UWIN on variables representing the distinction made in Equation 1 between *incident-based* and *equal protection-based* arguments. We created two variables to capture each of these broad categories of union arguments. CONFIG INCIDENT is measured as a dichotomous variable equal to 1 if either CONFIG1 or CONFIG2 is present in a particular arbitration case. CONFIG EP is measured as a dichotomous variable equal to 1 if either CONFIG3 or CONFIG4 is present in a particular arbitration case.

Also included in the regression analyses are a number of control variables which have been identified in the literature as relevant in grievance arbitration decisions. These variables are intended to capture the broader environment in which the grievance takes place, as opposed to the types of challenges raised at arbitration. Prior research suggests that women have more success than men in disciplinary cases at arbitration. We thus control for the gender of the grievant (GRIEVFEMALE) [7, p. 259]. We also control for the presence of an attorney at the arbitration hearing (UATTY, ERATTY). Prior research suggests that being represented by an attorney is positively associated with a favorable outcome in the case [14, p. 554]. Finally, we control for various other factors unique to cases involving workplace violence, specifically whether the other party involved in the incident was a supervisor (OTHERSUPER) and whether the altercation leading to the disciplinary action involved physical contact (as opposed to a verbal altercation) (PHYSCONTACT). Because of the severity of the offenses, arbitrators might be less likely to reverse a disciplinary action involving an altercation with a supervisor, and/or one involving physical contact. Table 3 presents definitions for all of the variables, along with their means and standard deviations.

Because UWIN is a dichotomous variable equal to 1 if the union wins at arbitration and 0 otherwise, logistic regression was used to estimate the equations. The results from these analyses are presented in Table 4.

The results in column (2) of Table 4 show that configurations (1) and (2) are positively and significantly associated with a union favorable decision, even after controlling for other factors that may affect arbitrator decision making. These results suggest that an arbitrator is more likely to find in favor of the union's position when confronted with those specific arguments' configurations compared to cases where arguments are made that are not captured by any of the four configurations. Likewise, when each of the configurations is combined to represent either *incident-based* arguments (CONFIG INCIDENT) or *equal protection-based* arguments (CONFIG EP) as defined in Equation 1, both are positively and significantly related to a union victory. The only other variable which is statistically significant in each of the equations is the presence of an attorney as the union representative during the arbitration hearing (UATTY), indicating that unions are more likely to win when represented by an attorney at the hearing.

Table 3. Variable Definitions

| Variable name | Definition and description statistics |
| --- | --- |
| UWIN | A dummy variable equal to 1 if the arbitrator reverses the disciplinary action imposed on the grievant, or reduces the punishment on the grievant. $\mu$ = .52, s.d. = .50. |
| CONFIG1 | A dummy variable equal to 1 if the grievance case possessed the following condition characteristics: INCIDENT * DUE PROCESS * work history. $\mu$ = .23, s.d. = .42. |
| CONFIG2 | A dummy variable equal to 1 if the grievance case possessed the following condition characteristics: INCIDENT * WORK HISTORY * equal protection. $\mu$ = .11, s.d. = .32. |
| CONFIG3 | A dummy variable equal to 1 if the grievance case possessed the following condition characteristics: EQUAL PROTECTION * due process * incident. $\mu$ = .06. s.d. = .23. |
| CONFIG4 | A dummy variable equal to 1 if the grievance case possessed the following condition characteristics: EQUAL PROTECTION * WORK HISTORY * incident. $\mu$ = .03, s.d. = .18. |
| CONFIG INCIDENT | A dummy variable equal to 1 if the grievance case possessed the following condition characteristics: INCIDENT * DUE PROCESS * work history and INCIDENT * WORK HISTORY * equal protection. $\mu$ = .34, s.d. = .48. |
| CONFIG EP | A dummy variable equal to 1 if the grievance case possessed the following condition characteristics: EQUAL PROTECTION * due process * incident and EQUAL PROTECTION * WORK HISTORY * incident. $\mu$ = .09, s.d. = .28. |
| GRIEVFEMALE | A dummy variable equal to 1 if the grievant is female, 0 otherwise. $\mu$ = .13, s.d. = .33. |
| UATTY | A dummy variable equal to 1 if the union is represented by an attorney during the arbitration hearing, 0 otherwise. $\mu$ = .35, s.d. = .48. |
| ERATTY | A dummy variable equal to 1 if the employer is represented by an attorney during the arbitration hearing, 0 otherwise. $\mu$ = .53, s.d. = .50. |
| OTHERSUPER | A dummy variable equal to 1 if the "victim" of the altercation is a supervisor, 0 otherwise. $\mu$ = .38, s.d. = .49. |
| PHYSCONTACT | A dummy variable equal to 1 if the altercation involved physical contact, 0 otherwise. $\mu$ = .43, s.d. = .50. |

Table 4. Logistic Regression Results
(Dependent Variable: UWIN)

| (1)<br>Variable name | (2)<br>Coefficient (S.E.) | | (3)<br>Coefficient (S.E.) | |
|---|---|---|---|---|
| Intercept | −.65* | (.36) | −.66* | (.36) |
| CONFIG 1 | 1.10*** | (.40) | | |
| CONFIG 2 | 1.15** | (.55) | | |
| CONFIG 3 | 1.14 | (.74) | | |
| CONFIG 4 | 1.83 | (1.14) | | |
| CONFIG INCIDENT | | | 1.12*** | (.35) |
| CONFIG EP | | | 1.40** | (.63) |
| GRIEVFEMALE | .18 | (.48) | .16 | (.48) |
| UATTY | .67* | (.39) | .70* | (.38) |
| ERATTY | −.12 | (.36) | −.13 | (.36) |
| OTHERSUPER | −.11 | (.35) | −.09 | (.35) |
| PHYSCONTACT | .22 | (.35) | .20 | (.34) |
| N | 175 | | 175 | |
| Likelihood ratio | 19.37** | | 18.76*** | |

***, **, * (significant at the .01, .05, and .10).

## DISCUSSION

The results in Tables 2 and 4 provide evidence of the interactive and combinatorial nature of the arbitration decision-making process. First, Table 2 indicates that union-favorable decisions in our sample can be reduced to four configurations. Second, there appear to be two major types of successful union arguments related to workplace altercations, defined by their configurational characteristics. *Incident-based* arguments, captured by the first and second configurations in Table 2, are ones where union challenges to disciplinary decisions focus on characteristics of the incident that led to disciplinary action combined

with work history characteristics of the grievant or a lack of due process in the handing of the grievance. *Equal protection-based* arguments, captured by the third and fourth configurations, are ones where unions challenge disciplinary decisions based on the administration of the discipline itself, often in combination with arguments related to the work history of the grievant, and in the absence of arguments related to the factual context of the dispute or due process considerations.

Third, the regression analysis (Table 4) establishes the statistical significance of several configurations identified in the QCA results. Both of the *incident-based* configurations which Table 2 suggests are related to union victories prove to be statistically significant, even after controlling for factors that prior research suggests are important considerations in the arbitration decision-making process. In fact, when we regroup the configurations in terms of the two central arguments identified by QCA (*incident-based* and *equal protection-based*), we find that both types of arguments are significantly associated with a union victory. The regression results also indicate that, except for the presence of an attorney at the arbitration hearing, no other factors are statistically significant.

These results suggest that arbitrators are sensitive to *incident-based* claims when those claims are accompanied by possible concerns about the handling of the investigation by the employer (i.e., notions of due process). Analysis of the 40 cases associated with configuration 1 (an *incident-based* claim) reveals that the claim most often made by unions was that the grievant was provoked and that there was insufficient evidence to support the disciplinary action. In one such case, for example, the arbitrator begins his analysis of the events leading to the grievance by acknowledging the relationship between the factual context of the case and due process considerations. The arbitrator stated: "While the Union does not believe the Arbitrator will sustain the grievance solely on the basis of due process transgressions, the Union does believe that the Company's evidence should be viewed with a critical eye towards the secretive manner in which [the grievant's] termination was handled" [19, p. 403].

Arbitrators also appear to be sensitive to arguments based on the facts (i.e., characteristics of the incident leading to the disciplinary action), particularly when they are raised in conjunction with arguments about the employee's favorable work history. In cases associated with configuration 2, the other *incident-based* claim, arbitrators' decisions often emphasize issues related to the confrontation leading to the disciplinary action (e.g., the employee was provoked), along with a strong reference to the grievant's work history. For example, in finding in favor of an employee who was terminated for fighting, the arbitrator noted:

> Unfortunately, the Grievant's dedication was of no apparent consequence to the Company's decision to terminate him. . . . The Grievant was assaulted while holding his work knife. The Grievant defended himself without aggression and in so doing it accidentally resulted in a minor cut to the assailant's right knee, which required first aid at most. The assailant was terminated

immediately, and the grievant suspended for 3 days. Justice was served, and there it should have ended [20, p. 439].

Unlike the *incident-based* cases, the *equal protection-based* cases rarely involved more than a cursory discussion of the violent act itself. Commonly, in these cases the arbitrator notes that "the misconduct of the grievant warranted serious discipline" [21, p. 1041] or that "There is no doubt that the grievant engaged in serious acts of misconduct" [22, p. 81]. The arbitrator, however, then quickly turns to a discussion centered on issues of equal protection plus notions of due process and other non-incident characteristics. For example, the arbitrator might point out that the collective bargaining agreement provided some flexibility in cases involving the type of conduct engaged in by the grievant [21], that upholding the employer's imposed discipline "would make for a result that smacks of disparate treatment" [23, p. 529], or that a failure by the employer to properly investigate the accusations levied against the grievant (regardless of the fact that the employee had engaged in some serious violent act) cautioned against a finding of just cause [24].

## CONCLUSION

Industrial relations research on grievance arbitration outcomes has generally focused on the effects of grievant or arbitrator characteristics, or of various case facts. This research has relied on traditional statistical analyses, usually multiple regression, to isolate individual variable effects. In contrast, we focus on combinatorial effects of various factors. We argue that the arbitrator's decision-making process is best captured by a model that allows factors to be lumped together. That is, arbitrators do not look at individual arguments in isolation, but consider them together with other issues raised in the case.

To fully capture this dynamic, we utilize a mixed methodology involving QCA and more traditional regression analysis. The QCA allows us to identify different combinations of issues which are raised in grievance arbitration cases involving workplace violence and link them to specific arbitration decisions. The regression analysis allows us to determine whether the combinations have statistically significant relationships with the arbitration outcome.

The results are fairly consistent with prior research. Challenges to employers' disciplinary actions in cases stemming from workplace altercations basically involve issues of just-cause. Thus, it is not surprising that issues regarding the events leading to, and involving the altercation, are frequently the starting point for the arbitrator's decision. Arbitrators often explore the events leading to the action by the grievant, such as whether the grievant was provoked and whether the type of action was common or not in the workplace.

Perhaps somewhat surprising is our finding that while *incident-based* arguments are often central to the resolution of the grievance, focusing only on events

leading to the disciplinary action is not sufficient. Our results indicate that *incident-based* arguments appear to be more successful for unions when combined with arguments related to the work history of the grievant or arguments about whether the employer had satisfied notions of industrial due process.

Also informative is our finding that for a non-trivial number of cases, successful union arguments were not centered on characteristics leading to and involving the incident, but instead on issues related to industrial equal protection. In some of these cases, issues involving equal protection were raised by themselves (e.g., see configuration 3 in Table 2), but in most of these cases, equal protection arguments were accompanied with other non-incident related arguments such as work history.

The results, thus, illustrate the significance of legal arguments in the arbitration decision-making process. When presenting a case before an arbitrator, the parties craft arguments on the basis of the factual context of the dispute. One would expect that these arguments take into account the facts, emphasizing those issues which provide the best support for one's position. It is the combination of these arguments that appear to influence the outcome of the case.

## ACKNOWLEDGMENTS

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