

## XIV. 2003 IRRA BEST DISSERTATION COMPETITION

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# Expert Judgment in the Mediation of Collective Bargaining Disputes

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Negotiations, conflict, and the resolution of both are studied from a variety of behavioral and social science perspectives. Generally, each branch of learning examines these topics using tools developed by and for researchers who share a similar viewpoint. It is infrequent that we find the methodologies that are the common means of inquiry in one field adopted for use in another. The practice of negotiation and mediation is not often studied in “real-time” either, usually reenactments or simulations are evaluated. This project strives to overcome both of these limitations, spanning disciplines and bridging the worlds of theory and practice.

Often the “art” of negotiating and mediating is described through anecdotal recounting of how particular situations are resolved. Other inquiries, e.g., game theory, take a more systematic approach and describe the “science” of reaching agreement. This study attempts to displace, to some degree, the “art” versus “science” debate in favor of a more robust “art and science” evaluation of negotiation and mediation, as suggested by Howard Raiffa (1982). This is achieved by applying scientific methods derived from social judgment theory’s examination of the cognitive and judgmental features of the decision-making process to active mediation cases (Mumpower et al. 1988).

Besides possessing good interpersonal communication skills, negotiators and mediators must be adroit at interpersonal learning, that is, at gaining knowledge from each other. The capacity to determine the degree to which

particular items are important to each of the parties in negotiations is critical to good interpersonal learning. The essential elements of this investigation are to ascertain how good the participants in bargaining and mediation are at learning from each other what will resolve the conflict and to determine if they can arrive at likely settlement terms by using judgment theory's analytical techniques. The fact that data were collected from the participants during the actual mediation of the negotiations makes this study unique.

"Listening with the third ear" is essential for a mediator to uncover the critical elements of a dispute (Kressel 1972). Judgment theory's emphasis on the cognitive faculties connected with decision making can help determine if the mediator's third ear is well tuned. Studying mediation from this perspective calls for an examination of the extent to which mediators are affected by cognitive limitations. Mediators experience the same cognitive failings as other decision makers. Mediators have their own unique perceptions or mind-set and their capacity for managing information is limited. The mediator's general perception of how to handle disputes, how they should be resolved, what is important, and what is trivial, all influence what she hears and how she interprets what is received.

Once the mediator filters what he is told by the parties so that it meshes with his view of the world, he begins to make decisions about what to do with the information. At this point, just like the negotiators, the mediator is susceptible to many cognitive failings. Nonetheless, given these cognitive shortcomings, the *sine qua non* of effective mediation is the mediator's suggesting of alternatives for breaking deadlocks (Newman 1985). Mediators develop these important suggestions by making judgments about the true positions of the parties. Mediators are not insulated from cognitive foibles, and since mediator judgments concerning suggestions are essential to the resolution of disputes, it is salient to have a notion concerning the impact of these limitations on mediators.

What does a mediator bring to a dispute that helps lead to resolution? An experienced mediator may select from a number of roles, strategies, and tactics to assist in resolving impasses (e.g., Kagel and Kelly 1989; Kolb 1983; Maggiolo 1985). A taxonomy of mediator roles is introduced to help answer this question; the examples are reality messenger, outside reinforcer, and interpersonal learning expert.

The mediator's ability to listen with the third ear is critical to the interpersonal learning expert. In this role, the mediator develops a better understanding than the negotiators of what is important to each side. The expert then shines a light on or leads the parties to the resolution that she identifies. This study focuses not only on how well the negotiators understand each

other but also the degree to which the mediator fulfills the role of interpersonal learning expert.

Knowing what is important to whom, i.e., interpersonal learning, is fundamental to identifying settlement terms. Therefore, efforts were made to select impasses for examination where the mediator would embrace the "settlement identification model" of intervention. The guiding precept for the "settlement identification model" is that the mediator develops a notion of what is acceptable to the parties. He must strive to identify likely terms of agreement.

The mediator must learn from someone what will resolve the conflict. In the typical collective bargaining setting there are many people from whom the mediator learns, e.g., negotiating committee members, public officials, and the media. Not all the potential sources of knowledge can participate in this study, hence, limited sources are engaged. The advocates for the parties at impasse are participants in this research, and it is assumed they adequately represent what is important to their clients. This includes incorporating elements such as political forces, economic factors, efficiency concerns, equity considerations, and so forth. The mediator, the advocate for the public employer, and the chief spokesperson for the employee organization participated directly in this research by making judgments about the acceptability of potential contract terms.

## **Methods**

After a specific impasse was selected, multiple hypothetical settlements were produced for evaluation by the mediator, the union negotiator, and the management representative. Each of these hypothetical settlements consisted of a package of three or five issues that were separately resolved either in favor of one of the parties' positions or at specified intermediate points in the range between proposals. The participants rated the acceptability of the potential contract to each party on a scale of 1 to 20, with 20 being most acceptable. The mediator, the union negotiator, and the management representative also evaluated each of the package settlements based on their assessment of the likelihood that the terms would resolve the dispute.

The potential contracts were presented to the mediator and negotiators after the completion of the second mediation session. Data were gathered at this point in the process to ensure that the raters would have adequate time and involvement with each other to formulate judgments about the others' value models. This was particularly important for the mediators because they did not have the benefit of being involved in the direct negotiations.

## Results

Responses in the judgment exercises were examined along six dimensions. First, attention was focused on the respondent's ability to understand what was acceptable to the employer and the union. Participant assessment of how acceptable each potential contract was to the union and the employer was compared to the negotiator's own rating of acceptability. Next, the union and management negotiators' judgment policies were externalized. These policies displayed the calculated function forms and weights placed on each issue by the representatives. Third, the participants' accuracy in predicting how the management and union negotiators assigned their weights was examined. The participant's ability to correctly rate contract terms that presented anchor and key values was the fourth area of inquiry. The fifth area of investigation involved predicting contract settlement terms. Finally, the predicted settlement was compared with the contract terms that were approved by the parties.

Participant success at predicting the acceptability of contract terms to the negotiators was the critical element of this analysis. Examination of correlation coefficients and the frequency distributions of prediction errors for the participants' acceptability ratings were the key measures for assessing such success. Results revealed that some mediators, employers, and union negotiators were better than others at understanding the parties' preferred contracts. From the correlation coefficient and frequency distribution analyses, the mediators proved to be no better at predicting acceptability of contract terms than the negotiators. This suggests that in the impasses examined, the mediator did not hold any privileged status with regard to interpersonal learning.

The judgment policies that negotiators and mediators rely on in assessing the acceptability of contract terms are composed of the weights and function forms they attach to each issue. The weights quantify the level of importance each issue carries for the evaluator and the function form indicates if they prefer more or less of the item. All participants accurately identified the appropriate function forms for both the management and union advocates. In most instances, the weights derived from the rating exercise indicated that the participants had a fairly good understanding of how important each issue was in relation to all of those in dispute.

Several key indicator package contracts were offered to evaluate the acceptability of traditional or common negotiation resolution strategies. Primarily, the key contracts depicted classic compromising and logrolling or horse-trading. The classic compromise offered a "half-a-loaf" on each issue. For example, the wage adjustment that was presented was midway between the parties' positions. In the logrolling key contracts, issue for issue trade-offs were developed where each party found nearly one half of its proposals and one half

of their counterpart's positions included in the potential settlement. These frequently invoked "what if" potential contracts did not prove to be any more acceptable to the participants than other package proposals.

The economic technique of determining an efficient frontier was used to evaluate how good the participants were at predicting settlement terms. This type of analysis is useful here because it addresses the adequacy of interpersonal learning. Do the participants know enough about each other to recognize contract terms that are legitimate contenders, those that the parties might actually consider for settlement? Correlation coefficients do not necessarily tell us this. A substantial correlation coefficient can be based on the ability to recognize potential contract terms that the parties clearly would not accept. However, the hypothetical contracts that fall on the efficient frontier should offer terms that the participants believe have some degree of acceptability, thereby moderating the potential correlation coefficient misrepresentation.

Plotting and examining the joint distribution of the parties' preference ratings for each hypothetical contract depicted the actual or "true" efficient frontier of settlement possibilities in each case. To assess interpersonal learning, the predictions that the negotiators made regarding the acceptability of the potential contracts to their counterparts were also charted, yielding the perceived efficient frontier. The potential contracts that fell on both efficient frontiers were compared to the ratings they received from the mediator. What emerged was one hypothetical contract for each case that was the predicted settlement derived from the analysis of the judgment exercise.

The predicted settlements were compared to the actual settlements eventually reached by the parties. Although each issue was not resolved exactly as predicted in the judgment exercises, the actual settlements were quite similar to those that were derived. To get a better picture of where the final settlements landed in relation to the potential contracts on the true efficient frontier, an estimate of the negotiators' eventual settlement ratings was calculated from their judgment policies. The estimates were computed by multiplying the derived judgment model weights by the final settlement values for each issue. In each case, the final settlement lies on or just inside the efficient frontier for potential contracts. The proximity of the final settlements to the analytically estimated efficient frontier validates the estimated judgment model and settlement space.

## **Conclusion**

This study supports the notion that during negotiation and mediation the principal advocates and the mediator generally do a good job of learning what will resolve an impasse. Most parties understood their counterparts quite well. From the analysis, it is clear that the mediator was not much better than the

negotiators at predicting the acceptability of particular contract terms. However, even when the parties understood each other better than the mediator understood either of them, the mediator was still able to join with the negotiators in identifying the most likely settlement terms.

The efficient frontier analyses showed that the participants' impressions of what would settle the impasses were fairly accurate. They identified hypothetical contracts that might resolve the negotiations. When those potential contracts were compared to the actual settlement terms reached by the parties, they were not exactly the same but quite similar.

The evidence from this study supports the proposition that conflict, as indicated by an impasse in negotiations, can exist even where there is good interpersonal learning by the negotiators. In these situations, the parties may need the mediator to act as a reality messenger, outside reinforcer, or for her to take on some role other than that of interpersonal learning expert.

## References

- Kagel, S., and K. Kelly. 1989. *The Anatomy of Mediation: What Makes It Work*. Washington, D.C.: BNA Books.
- Kolb, D. M. 1983. *The Mediators*. Cambridge, Mass.: MIT Press.
- Kressel, K. 1972. *Labor Mediation: An Exploratory Survey*. New York: Association of Labor Mediation Agencies.
- Maggiolo, W. A. 1985. *Techniques of Mediation*. Dobbs Ferry, N.Y.: Oceana.
- Mumpower, J. L., S. Schuman, and A. Zumbolo. 1988. "Analytical Mediation: An Application in Collective Bargaining." In *Organizational Decision Support Systems*, ed. R. Lee, A. M. McCosh, and P. Migliarese. Amsterdam: North-Holland, pp. 61–71.
- Newman, Harold R. 1985. "Mediation and Fact Finding." In *The Evolving Process—Collective Negotiations in Public Employment*. Fort Washington, Pa.: Labor Relations Press.
- Raiffa, H. 1982. *The Art and Science of Negotiation*. Cambridge, Mass.: Belknap/Harvard University Press.